



**Government of Malawi**

# Public Sector Investment Programme (PSIP)

## PSIP DATABASE (Ver.4) USER MANUAL For MDAs/Guests

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## **1. Introduction**

As part of implementation of the Capacity Enhancement for Public Sector Investment Programming, a Public-Sector Investment Programming (PSIP) database was firstly developed in the CEPSIP-1 Project<sup>1</sup>. The database system is custom web-based software solution using PHP and MySQL database with a Web front-end. Being web-based, the system is accessible to all on the Government Wide Area Network (GWAN) and Internet users. Actually, the database serves as a platform for submitting project documents and handling other PSIP management processes.

The next phase of CEPSIP-2 project<sup>2</sup> started aiming at the improvement of Database and Manuals/Handbook for PSIP, further harmonization of the process of PSIP, and the capacity building to use improved Database and Manuals/Handbook for PSIP. As one of the activities to attain those purposes, the system was upgraded to Ver.1.1 to reflect the modification of proposal templates for fiscal year 2014/15, as well as the several environmental changes. The second edition covered those system modifications applied until March of 2014, where the submission of Word Proposal Template was employed.

The next version 1.5 was launched after the proposal templates for fiscal year 2015/16 was released. The design and system structure followed the ver.1.1, developing new mechanism of Excel Template Proposal for the submission together with other new functions.

The PSIP Database was upgraded to ver.2.0 released on December 2015, in line with the new proposal templates fiscal year 2016/17 where the additional new features to support appraisal decision procedures and quarterly report managements were introduced. This version applies the whole refactoring of the system (mainly database and program structure), to be able to get the better maintainability, scalability and flexibility, which means that the upgraded version enables to respond to the flexible and quick modifications according to the organizations or business requirements. The design of the screens on the Web has been completely renewed as well for the better user interface.

On September 2016, the version was upgraded to 3.0 after the Excel Proposal Template ver3.0 was released. In new version, the information that had been managed until then individually or somewhere in local storage was integrated into the centralized database. This centralized management of information dynamically improved the PSIP staff's business process by hand to systematic one. With this version, the submitted proposal by MDA user

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<sup>1</sup> CEPSIP 1; Capacity Enhancement in Public Sector Investment Programming Phase I (from July 2009 to July 2011)

<sup>2</sup> CEPSIP 2; Capacity Enhancement in Public Sector Investment Programming Phase II (from March 2013 to September 2017)

is appraised on the Web to make quick decision, what discussed in the ministerial meeting is all recorded in the database effectively to support the appraisal and the ability to make budgetary transitions. Further, as MDA user support, the extension request submitted by MDA user or feedback of the appraisal is visible on the Web.

In the 2018/19 fiscal year, the database will now start using the new version 4.0, released on August 2017. This new version focuses on providing better feedback to the MDA users with the valuable information such as the result of the requested project extension. The submitted reports by MDA users such as Project Extension Request or Completion Report is displayed as well on the Web page with the same Excel format. Regarding the budget, the requested amount and approved budget can be traced on the Status & Budget screen for your reference.

## **2. What is PSIP Database**

### **2.1 Overview of PSIP Database**

The overall objective of the PSIP is to facilitate efficient utilization of Malawi's human, natural, physical and social resources to improve the country's economic prospects and further development of public services. This objective is attained through a careful and thoughtful process of planning and management of development projects across the sectors.

To achieve this objective, PSIP provides a mechanism that screens and confirms public investments projects to ensure that they are in line with the priority areas of the MGDS and that the implementation of such projects is done in the most cost effective and efficient manner. The PSIP Database tool was developed to contribute to the PSIP Unit and stake holders to achieve this goal.

All MDA users are required to submit their proposed development projects to the PSIP Unit under Development Planning Division of the Ministry of Finance Economic Planning and Development (MFEPD) during the budget preparation process. The PSIP unit validates these project proposals. After the deadline of PSIP proposal submission, a series of ministerial meetings is convened where Ministries present their project proposals. The proposals are screened by MFEPD; this process involves discussions with line ministries so that programs/projects that do not conform to ministerial, sectoral, or national goals and objectives are not accepted for inclusion in the PSIP. The project proposals are analyzed and then are either approved, rejected or referred back to line Ministries for further refinement.

The database system allows MDA users to submit their proposals electronically through an Excel Template file which data is later stored systematically to the Database by PSIP Unit staff. The submitted proposal is expected to permit MDA users to search and list all the projects that are presented to the PSIP Unit and even view details pertaining to projects that are

implemented, ended, rejected, pipelined or terminated including the information in the past. The Monitoring and Evaluation Unit will easily link and correspond with the Development Planning Division since they can all access and refer to the same database. This will minimize problems that may arise due to lack of adequate information when monitoring and evaluating projects by the Malawi Government. Furthermore, this process will not only reduce the time it takes to submit, approve and monitor projects, but also decrease a lot of redundancies and human errors that were found in the previous manual system.

## 2.2 The roles of MDA

The planning section of each ministry plays a leading role in PSIP formulation at the line ministry level. By following the PSIP guidance, the planning section facilitates the compilation of data through the pre-designed template on the PSIP database, consolidates and submits the proposals to MFEPD. Then the MFEPD and the planning section of each line ministry have meetings to decide the project list to be included in the PSIP while considering the allocation amount of the development budget to each project within a given ceiling figure. The compiled data from line ministries is then submitted to MFEPD.

## 3. System Requirements

The following table shows supported versions and conditions of the system.

**Table 1: System Requirements**

System	version	Remarks
Excel Proposal Template	ver. 4.0 or higher version	
Operating System	Windows 7 or later version	
PSIP Database Web	ver. 4.0 or higher version	
Proposal Loader system	ver. 4.0 or higher version	
Proposal Generator system	ver. 4.0 or higher version	
Browser	<ul style="list-style-type: none"> <li>• Internet Explorer 10 or later</li> <li>• FireFox higher than ver.45</li> <li>• Chrome higher than 49</li> </ul>	<ul style="list-style-type: none"> <li>- JavaScript must be enabled.</li> <li>- Pop up windows should be enabled.</li> </ul>

This document assumes that the computer system has connection to the GWAN network or has direct internet connection to use PSIP Database application.

### 3.1 Intended Audience

This document is intended for personnel involved in the PSIP process which includes planning units of all the sectors of Government of Malawi, the planning unit and Monitoring and evaluation section of Ministry of Financial Economic Planning and Development (MFEPD), Project Management Units (PMU), the budget Division in MFEPD and the Steering Committee



of CEPSIP. Any other stakeholders such as donors are also available as GUEST user with some limited use of functions.

#### 4. Access to the System

You can access to the system by the following URL address.

**Table 2: Access to the system**

	URL address	Type of connection	Who can connect	Observations
1	<a href="http://psip.malawi.gov.mw">http://psip.malawi.gov.mw</a>	- Internet -GWAN intranet connection	- who has Internet connection - who connects to the GWAN network with Intranet connection - who connects to the JICA network at PSIP office	If your network is GWAN or JICA Wi-Fi connected, the connection will be made by Intranet. If you are out of GWAN having your own Internet connection from outside (such as Airtel Malawi), the connection will be by Internet.

##### 4.1 How to access to the PSIP Home Page

Enter the above URL address to your browser either by Internet or Intranet connection according to your environment.

- 1) Open your browser (Internet Explorer, Firefox or Chrome)
- 2) In the address bar of the browser, type in;

<http://psip.malawi.gov.mw>

This will be immediately redirected to the secure page “<https://psip.malawi.gov.mw>” as seen in the Figure below.



**Figure 1: Address bar**

**[note]** The difference is that what you enter is normal http protocol. The system immediately redirects to “[https](https://psip.malawi.gov.mw)” secure protocol where all the information is encrypted to protect your data.

- 3) This address takes you to the PSIP home page as seen below.

**Malawi PSIP Portal**  
Ministry of Finance, Economic Planning and Development

**Welcome to Malawi PSIP Portal.**

**General Information**

- \* PSIP Database 4.0 is now available! Click [\\*HERE\\*](#) to login.
- \* 2018/19 PSIP Circular is available! Click [\\*HERE\\*](#) to download.
- \* 2018-19 PSIP Guideline & Attachments.pdf under 2018/19 PSIP Circular contains 'Template', 'Progress Report Format' and 'PFM-IT Format' as attached. To submit required templates or formats, first please [login to PSIP Database](#), go to 'Download Forms' from the left menu and select the forms you want to download.
- \* To obtain an user account, please download and fill in the [user registration form](#) and hand it in to the PSIP Section or Email it to [psipprojects@gmail.com](mailto:psipprojects@gmail.com).
- \* If you have any question or concern, or you do not remember Login ID or password, please feel free to contact PSIP Section on 01-788-888 (Ext: 150/164) / 01-788-278(Direct) or [psipsubmissions@gmail.com](mailto:psipsubmissions@gmail.com).
- \* Contact the Deskofficers :|[Loyce Fatch MDA's](#)|[Dan Gareta MDA's](#)|[Daudi Chinong'one MDA's](#)|[Shalom Ghambi MDA's](#)|[Chikondi Phiri MDA's](#)|.

**Actual status of Proposal Template submission by votes**

Submitted/Uploaded: indicates the number of proposal templates submitted to PSIP section and uploaded to PSIP Database

NO	Vote	Vote Code	Submitted/Uploaded
1	050	State Residences	0
2	060	National Audit Office	0
3	070	The Judiciary	0
4	080	National Assembly	0
5	081	Office of the Director of Public Officer's Declarations	0
6	090	Office of the President and Cabinet	0
7	093	Department of Human Resources Management and Development	0

Figure 2: PSIP Home Page

This page has a menu on the left pane which will allow users to navigate easily from one page to the other. The home page is available for all users; in fact, no authentication is required to be able to obtain useful public information such as several manuals, reports and handbooks. On the main page the general information also shows some messages to the visitors. Below the general information, actual status of current Fiscal Year Proposal Template submission by votes can be viewed by all visitors. This represents the number of projects proposals sent by each vote.

## 4.2 How to access to the PSIP Database

To use the PSIP Database system, you are supposed to be authenticated in the database as a user having Login ID and password registered beforehand.

- 1) To enter the database, click on 'Login to PSIP Database' from the left menu.

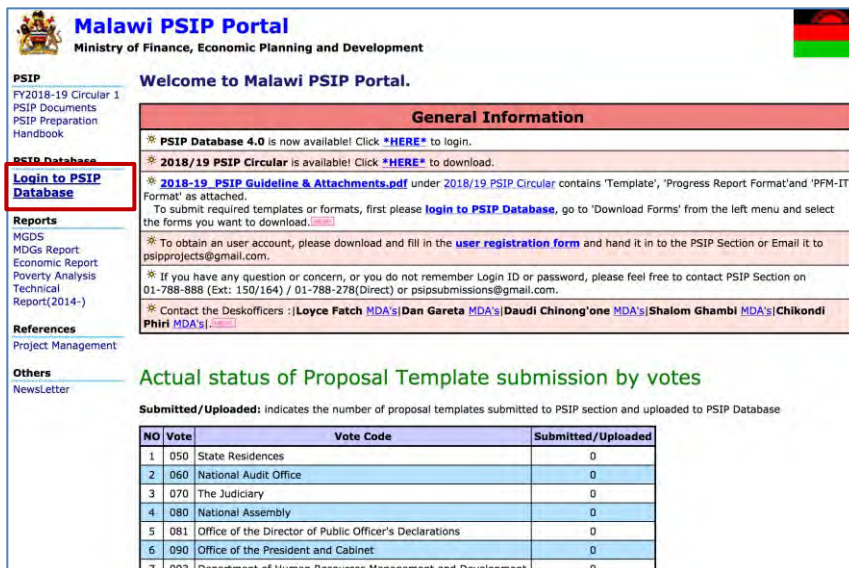


Figure 3: How to access to the PSIP Database

- 2) A page will pop up requesting to enter a password and username.

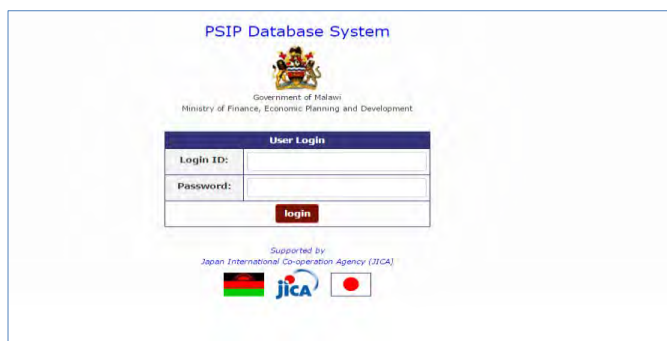


Figure 4: PSIP Database Login Screen

All users of the system are required to input Login ID and Password. When a user logs in, a connection called a session will be created. The session will be expired and require the user to log in again, if the user stays idle, that means, if the user does not click the submit button nor react for certain session maximum time.

**[Note]** Be careful that Login ID and Password are case sensitive, i.e. "User" and "user" are not the same.

If the login authentication is successful, it takes you to the top page of announcement of PSIP Database.

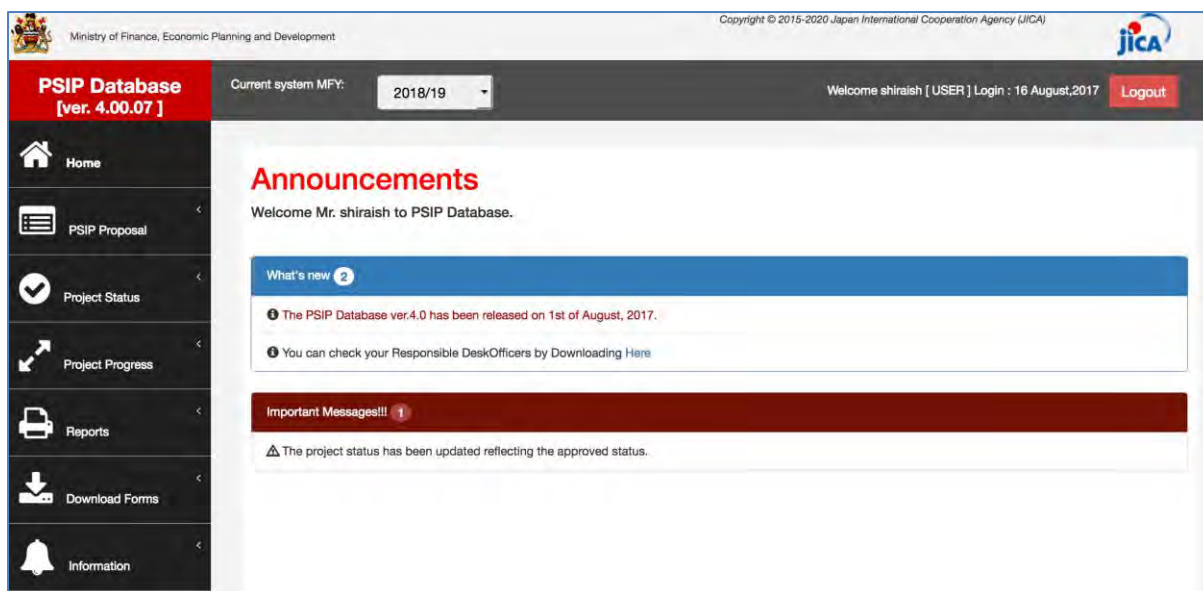


Figure 5: Announcements screen

### 4.3 How to obtain Login ID

A user is required to submit a User Registration form in Annex 1 to the PSIP Unit to obtain the Login ID. This form can be downloaded from the PSIP portal top page. After you fill in your profile and password, send it to the PSIP Unit who will register your account to the Database and provide you the temporary password. The first time your login, you are required to enter this temporary password and change it to new password.

## 5. PSIP Database features and functions

Let's see the main functions displayed on the menu of the left pain of the window. The menu has the submenus shown when you click the item.

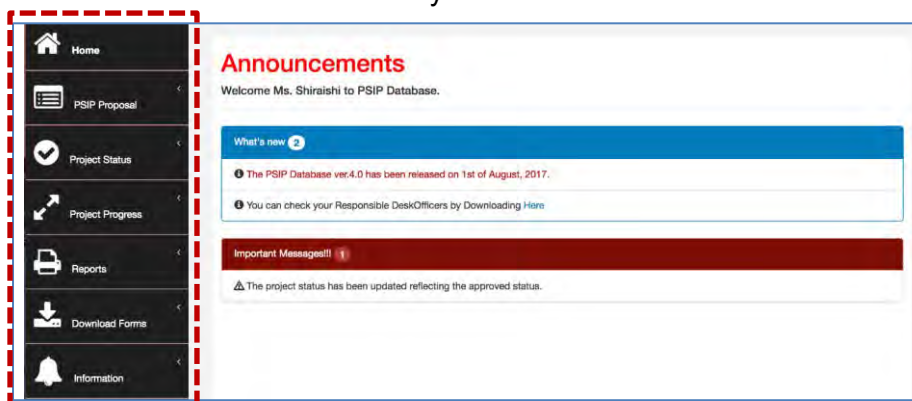


Figure 6: Database Menu

### 5.1 Home/Announcements

After your successful login to the system, the Announcement page of PSIP Database is on top. It displays the latest news and useful information regarding the PSIP activities and the system. It may sometimes display warning messages individually to your Ministry. It is

therefore recommendable for the user to every time check the announcements before using the system. The page also displays a feature of Desk Officers where you can download and see your PSIP desk officer.

### 5.1.1 View names of PSIP Desk-officers and their responsible MDA Portfolio

To view the names of PSIP Desk-officers and their MDA portfolio, click on the pop up in the announcements screen, which will navigate to matrix window of desk officers.

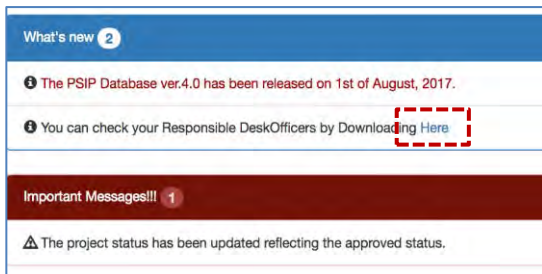


Figure 7: Announcements Screen

## 5.2 PSIP Proposal

PSIP Proposal menu contains the information regarding proposals, such as Project Proposal details, Summary of the submitted projects and Submission status of the proposals by MDAs.

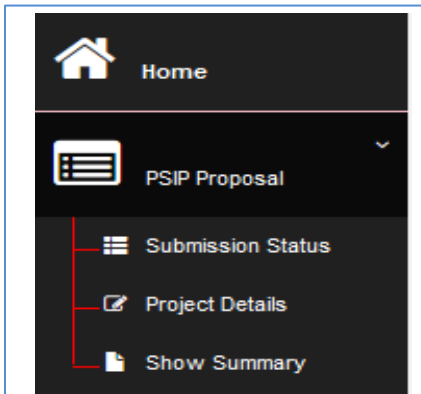


Figure 8: PSIP Proposal submenu

### 5.2.1 Submission Status

All the projects are shown in the Submission Status list presenting the submission and uploaded status.

**Project Template Submission Status**

Fiscal Year: FY2017/18 Vote: All Votes

Number of Projects: Submitted=301, Loaded=314

**Vote: 050 - State Residences**

No.	Project Code	Project Title	Type	Submitted	Loaded
1	1100	Construction and Rehabilitation of State Houses and State Lodges	Ongoing	1	1
2	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	Ongoing	1	1
3	1456	Rehabilitation of Roads and Drive Ways at State Residences	Ongoing	1	1
4	1457	Replacement and Rehabilitation of Plants and Equipment at State Residences	Ongoing	1	1

**Vote: 070 - The Judiciary**

No.	Project Code	Project Title	Type	Submitted	Loaded
1	1168	CONSTRUCTION OF COMMERCIAL COURT	Ongoing	1	1
2	1169	CONSTRUCTION OF JUDICIARY HEADQUARTERS	New	1	1
3	1700	REHABILITATION OF COURT BUILDINGS	Ongoing	1	1

**Vote: 080 - National Assembly**

No.	Project Code	Project Title	Type	Submitted	Loaded
1	1462	Construction of Parliament Building-Phase 2	New	1	1
2	1897	Modernization of Parliament for Effective Representation Project	New	1	1

**Vote: 090 - Office of the President and Cabinet**

No.	Project Code	Project Title	Type	Submitted	Loaded
1	1929	Project for the Enhancement of Capacity in Public Policy Formulation, Analysis, Monitoring and Evaluation	New	1	1
2	1916	Project for the Enhancement of Capacity in Public Policy Formulation, Monitoring and Evaluation	New	1	1

Figure 9: Submission Status screen

The number “1” on the corresponding column means that it is already completed on each status. There are following two status of the submission.

Table 3: Status of the submission

Submission Status	Meaning	Remarks
Submitted	The proposal is submitted by the vote.	
Loaded	The proposal is uploaded to the database by the PSIP unit.	

This list can also be used to confirm if your proposal is correctly stored in the PSIP database.

**[note]** This screen is visible only for MDA users, and not available for GUEST users.

## 5.2.2 Project Details

Project details will list the submitted project proposals, by selecting FY, Vote in a drop-down list or project status.

1) Select the conditions to list the projects

**MFY**; select the FY you are interested in. You can select not only corresponding year, but past proposals are also available.

**Vote**; choose the vote which project you want to filter.

**Status**; check/uncheck the project status to filter the projects. i.e. ending, completed and new.

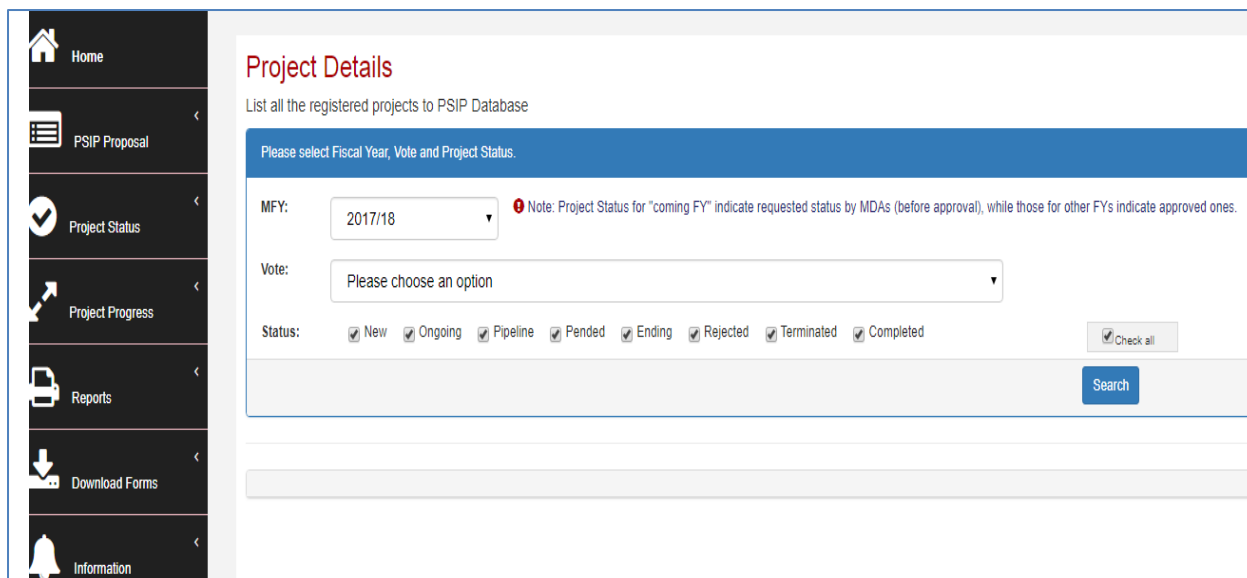


Figure 10: Project Proposal List search

- 2) Press the Search button and the corresponding projects are shown according to your conditions with the number of rows. The project status is also displayed in the list.

Results of the search: 305 data was found

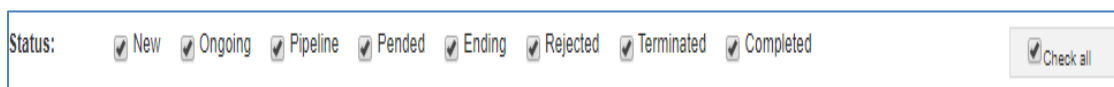
Copy CSV Excel PDF Print Show 10 entries Search:

No	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING
3	State Residences	1456	Rehabilitation of Roads and Drive Ways at State Residences	2015/07 ~ 2018/06	ONGOING
4	State Residences	1457	Replacement and Rehabilitation of Plants and Equipment at State Residences	2015/07 ~ 2018/06	ONGOING
5	The Judiciary	1168	CONSTRUCTION OF COMMERCIAL COURT	2012/07 ~ 2018/12	ONGOING
6	The Judiciary	1169	CONSTRUCTION OF JUDICIARY HEADQUARTERS	2017/08 ~ 2021/07	NEW
7	The Judiciary	1700	REHABILITATION OF COURT BUILDINGS	2017/07 ~ 2020/06	ONGOING
8	National Assembly	1462	Construction of Parliament Building-Phase 2	2018/09 ~ 2025/08	NEW
9	National Assembly	1897	Modernization of Parliament for Effective Representation Project	2017/07 ~ 2022/06	NEW
10	Office of the President and Cabinet	1929	Project for the Enhancement of Capacity in Public Policy Formulation, Analysis, Monitoring and Evaluation	2017/07 ~ 2019/10	NEW

Showing 1 to 10 of 305 entries Previous 1 2 3 4 5 ... 31 Next

Figure 11: Project Proposal List

**[note]** As a default, all the status is selected. If you want to unselect all, uncheck the “Check all” checkbox.



**[note]** Project Status for "coming FY" indicate requested status by MDAs (before approval), while those for other FYs indicate approved ones.

### 3) Other useful functions

- **Search by keyword**

After you list all the projects, if you want to filter more in detail with some keywords, enter the word into the “Search” textbox, and only the projects that hit with the corresponding keyword will be listed on the table.

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries

No ^	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 12: Search by keyword

- **Sort on the title of the table**

You can sort the list table clicking the title (No, PSIP Code, Title, Type, etc.).

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries

No ^	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 13: Sort function

- **Print function**

By clicking the printing function button, you can print the filtered table to print image, PDF, CSV (Excel) or “Copy and Paste” to where you want.

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries

No ^	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 14: Print function

- **Show entries function**

By selecting the Show entries button, you can specify the number of projects appearing on screen e.g. 50,100,200 or all.



Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries Search:

No	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 15: Show entries function

### 5.2.3 Project Detail Information

By selecting the Project Code on the list, it takes you to the project detail information page. Project Detail Information is grouped into several tabs. Clicking on the tabs will open a corresponding page according to the project status. New Project Registration has tabs namely General Info / Outline / Total Project Cost Matrix / Annual Project Cost Matrix / Financing/ Monitoring Evaluation/Proposal Applied FY/Project Management Structure, while On-going project has tabs; General Info / Outline/Project Performance / Annual Project Cost Matrix / Monitoring Evaluation / Proposal Applied FY/ Project Management Structure.

Basically, the contents displayed in the Project Details are the same as Excel Template format. On the top of the page the title, the status and selected year are always visible.

**ONGOING Project: Construction of Security Fence at Kamuzu and Sanjika Palaces [1453]**  
 [Selected project year: 2017]

PSIP Database / PSIP Proposal / Project Details pdf print

General Info Outline Project Performance Annual Project Cost Matrix Monitoring Evaluation Proposal Applied FY Proj.Mngmt.Structure

**General Information**

1	Project Code	Project Code	PSIP Previous Code
		1453	14-050-002
2	Project Title *	Construction of Security Fence at Kamuzu and Sanjika Palaces	
	Project Type *	Development/Infrastructure	
	Readiness of Project *	<input type="checkbox"/> Ready to start designing <input type="checkbox"/> Feasibility study completed <input type="checkbox"/> Land Acquisition is completed <input type="checkbox"/> Hiring of contractors done <input type="checkbox"/> A design is available <input type="checkbox"/> Detailed engineering design and costing is done <input type="checkbox"/> Procurement Process has started <input type="checkbox"/> Procurement has been done	

Figure 16: Project Detail screen

Print output function is available in each page with PDF format and Print image.

Selected project year: 2017

PSIP Database / PSIP Proposal / Project Details pdf print

Figure 17: Print function in Project Detail

## 5.2.4 Show summary

Instead of displaying the specific proposal information one by one, you can list all the projects in one table summarizing the submitted proposal information.

- 1) Go to PSIP Proposal-> Show summary from the left pain menu.

Project Summary [Form 1]										
Fiscal Year FY 2017/18		Vote -- All Votes --								
Total: 328 Projects										
		FY2017/16 Part I requested	FY2017/16 Part II requested							
New		228,321,231,960	464,775,173,966							
Ongoing		207,446,580,998	229,478,772,201							
Vote: All Votes										
No.	Vote	NEW/ONGOING (FY2016/17 Status)	Project Title	Project Purpose	FY2016/17 Start-End (Orig)	FY2016/17 Start-End (Revised)	FY2017/18 Start-End (Orig)	FY2017/18 Start-End (Revised)	FY2016/17 TEC (MK)	
1		ONGOING (ONGOING)	1100 - Construction and Rehabilitation of State Houses and State Lodges	To improve the accomodation and work environment for the Head state through rehabilitation of State Houses and lodges	Jul/2008 - Jun/2016 (8years)	Jul/2015 - Jun/2018 (3years)	Jul/2008 - Jun/2016 (8years)	Jul/2015 - Jun/2018 (3years)	50,000,000	
2		ONGOING (ONGOING)	1453 - Construction of Security Fence at Kamuzu and Sanjika Palaces	To Construct and rehabilitate security fence at Kamuzu and Sanjika Palaces	Jul/2014 - Jun/2015 (1year)	Jul/2015 - Jun/2017 (2years)	Jul/2014 - Jun/2015 (1year)	Jul/2015 - Jun/2017 (2years)	50,000,000	
3		ONGOING (PENDED)	1456 - Rehabilitation of Roads and Drive Ways at State Residences	To improve passability of roads in State Houses and facilitate timely delivery of State house business through rehabilitation of roads and drive ways	Jul/2014 - Jun/2017 (3years)	Jul/2015 - Jun/2018 (3years)	Jul/2014 - Jun/2017 (3years)	Jul/2015 - Jun/2018 (3years)	50,000,000	

Figure 18: Show summary screen

This summary list is quite useful to compare all the projects since it shows TEC, Funding of the recent two years, information of donors and contacts at once.

- 2) To get the summary list in Excel format, you can click “Download” icon.

**[Note]** The project summary is one of the main tools for the appraisal. Be careful that if your proposal is not found here, it means that the project may be excluded from the appraisal. If your submitted project is not found in spite you have sent it to the PSIP unit, please contact to the PSIP staff.

## 5.3 Project Status Menu

### 5.3.1 Status & approved Budget

The Status and Approved Budget submenu shows the list of results of project status, approved budget, the appraisal decision, submission status and mid-year revision budget.

- 1) Specify the financial Year FY, Vote and Status as search conditions
- 2) The projects that meet the search conditions are listed in the table

### Status & Approved Budget

List the results of project status and approved budget

Please select Fiscal Year, Vote and project status

MFY:

Vote:

Status:  New  Ongoing  Pipeline  Pended  Ending  Rejected  Terminated  Completed  Check all

Results of the search: 10 data was found

Copy Excel Print PDF Show All entries Search:

no	vote	Previous Code	Project Title	Submission Status			Appraisal Decision	Approved Budget			Mid Year Revision		
				Status	Part I(MKW)	Part II(MKW)		Status	Part I (MKW)	Part II(MKW)	Status	Part I (MKW)	Part II(MKW)
1	[100] Ministry of Defence	08-100-001	[1104] Construction and Rehabilitation of Buildings and Structures	ONGOING	0	296,000,000	ONGOING	ONGOING	1,000,000,000				
2	[100] Ministry of Defence	14-100-001	[1470] UP GRADING OF COBBE BARRACKS INSTITUTIONAL ROADS	ONGOING	0	550,000,000	ONGOING		800,000,000				
3	[100] Ministry of Defence	14-100-002	[1471] CONSTRUCTION OF 4112 NEW HOUSES IN SELECTED MDF UNITS ACROSS THE COUNTRY	NEW	0	253,400,000	PIPELINE	PIPELINE					

Figure 19: Status and Approved Budget screen

The appraisal decision made by PSIP desk officer is shown in the appraisal decision column. First of all in the appraisal decision, the project has the proposed status submitted by MDA users through Excel Proposal Template. Then the status will have the result of appraisal. The following figure shows how the transition of the status of New, On-going and Pipeline goes.

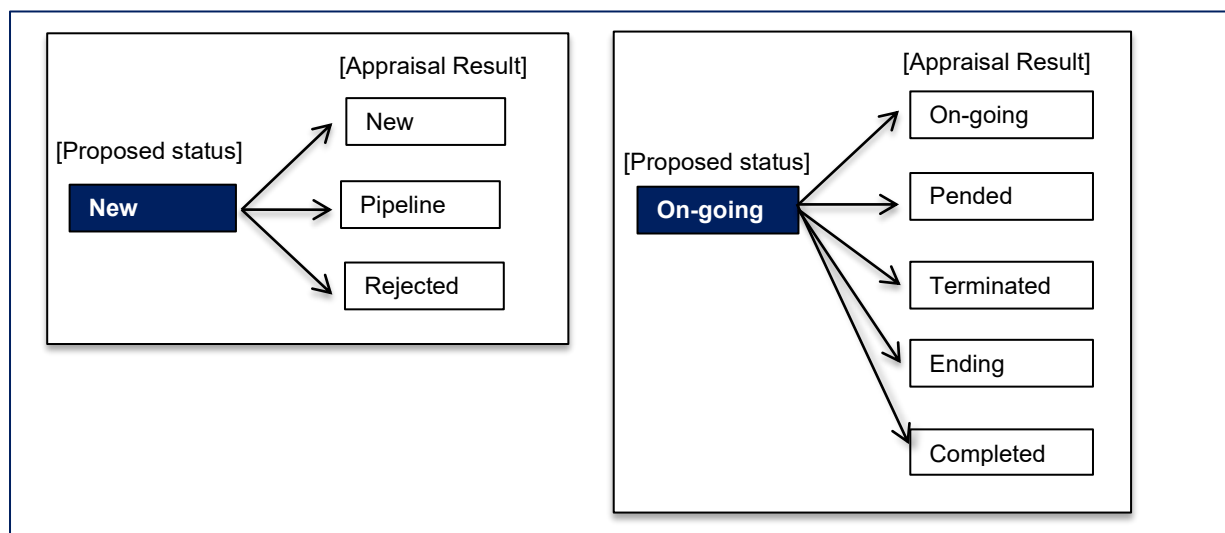


Figure 20: Transition of Project Status

The Proposed status by submission is set as project status after the proposal submission of the projects by MDA users. After the appraisal, its decision is set around mid-February overwriting the original status. The approved status column after the Parliament is inserted

into the table as shown in the figure below. This means that the approved status column represents the decision of the project which will be set around August.

Submission Status			Appraisal Decision	Approved Budget			Mid Year Revision		
Status	Part I(MKW)	Part II(MKW)		Status	Part I (MKW)	Part II(MKW)	Status	Part I (MKW)	Part II(MKW)
ONGOING	0	400,023,956	ONGOING	PENDE					
ONGOING	0	299,824,000	ONGOING	ONGOING		100,000,000			
ONGOING	0	2,232,850,000	PENDE	PENDE					
ONGOING	0	887,723,364	ONGOING	ONGOING		300,000,000			
NEW	0	0							

Figure 21: Four status of the project

## 5.4 Project Progress

### 5.4.1 Project Quarterly Progress Report Status

As a reporting function, you can list all the status of Project Quarterly Progress Report selecting the year and vote. All the projects with project status “On-Going”, “New” or “Ending” is retrieved according to your specified filter, showing which quarterly period of the report is already submitted and which is yet pending.

**Project Quarterly Progress Report Status**  
Show all the status Project Quarterly Progress Reports

Please select Fiscal Year and Vote. The reports are shown under the vote registered in the submitted Proposal Template of the selected year.

MFY: 2016/17  
Vote: 000 - List all votes  show only submitted projects  
Status:  NEW  ONGOING  PIPELINE  PENDE  ENDING  REJECTED  TERMINATED  COMPLETED  Check all

Results of the search: 49 data was found. Submitted projects are: Q1 45 Q2 15 Q3 10 Q4 2

no	Vote	VoteName	Project Title	Latest Status	Status of submission	Extension Request
1	093	Department of Human Resources Management and Development	[1706] The Rehabilitation of Access Road at Staff Development Institute	ONGOING	1Q: OK ✓ 2Q: --- 3Q: --- 4Q: ---	<input checked="" type="checkbox"/> Requested
2	100	Defence	[1104] Construction and Rehabilitation of Buildings and Structures	ONGOING	1Q: --- 2Q: --- 3Q: OK ✓ 4Q: ---	
3	100	Defence	[1470] U/P GRADING OF COBBE BARRACKS INSTITUTIONAL ROADS	ONGOING	1Q: --- 2Q: --- 3Q: OK ✓ 4Q: ---	
4	100	Defence	[1474] EXTENSION OF DWELLING UNITS AT MARINE UNIT	ONGOING	1Q: --- 2Q: --- 3Q: OK ✓ 4Q: ---	
5	100	Defence	[1476] Construction and Rehabilitation of Water Works - Mvera	ONGOING	1Q: --- 2Q: --- 3Q: OK ✓ 4Q: ---	
6	180	Sports Development and Culture	[1183] Construction of National Stadium	ONGOING	1Q: OK ✓ 2Q: --- 3Q: --- 4Q: ---	<input checked="" type="checkbox"/> Requested

Figure 22: Quarterly Progress Report screen

**[note]** The MFY will be selected with the year of the project which Quarterly Progress Report corresponds to. For example, if you submit the report for year 2016/17 project, select the year

2016/17 and the table shows all the 2016/17 projects that are supposed to submit report with project status New, Ongoing, Ending checked as a default.

If “show only submitted projects” checkbox is checked, only project who submitted Quarterly Progress Report will be listed.

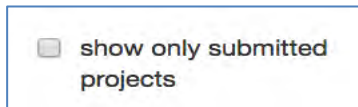
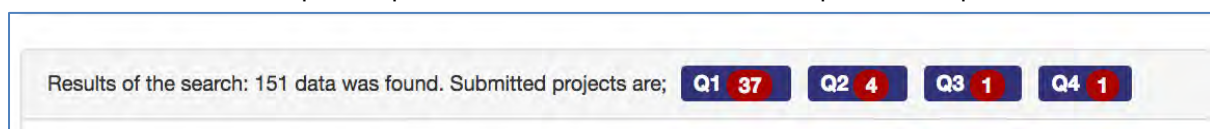



Figure 23: Show only submitted projects check button

The result of the search will be displayed after the search button is clicked with the specified conditions. The red number in the square represents the number of submitted reports each quarter.



### 5.4.2 Report Detail

If the report is submitted, you can click the blue OK button  to see the detail of the report corresponding to the project. There are tabs such as Main, Project Performance, which information is the same as Excel Project Quarterly Report. Please refer the Excel Manual for the detail information.

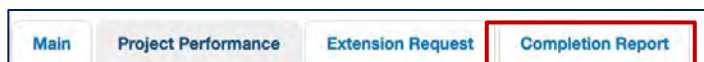
### 5.4.3 Extension Request

The submitted Extension Request information is available selecting "Extension Request" tab on the Quarterly Progress tab. The content is displayed with the same information as Excel Format.



### 5.4.4 Completion Report

If the project is completed and the report is submitted by Excel format, the content is also displayed on the "Completion Report" tag.



### 5.4.5 How does the system decide if the report is submitted or not

The system employs the following two conditions to see if the quarterly report is submitted.

- It checks if information on finance issues/ performance issues/ actions/ others is/are not empty.
- All above issues are empty but performance is not empty.

### 5.4.6 Feedback of Extension Request

On the Extension Request column, the "Requested" or "Show Result" button is displayed if the project has submitted the extension request.

The red "Requested" means that the project has submitted the request, while the green "Show Result" represents that the result is already done.

Latest Status	Status of submission				Extension Request
ONGOING	1Q: OK ✓	2Q: ---	3Q: ---	4Q: ---	Requested
ONGOING	1Q: ---	2Q: ---	3Q: OK ✓	4Q: ---	
ONGOING	1Q: ---	2Q: ---	3Q: OK ✓	4Q: ---	
ONGOING	1Q: ---	2Q: ---	3Q: OK ✓	4Q: ---	
ONGOING	1Q: ---	2Q: ---	3Q: OK ✓	4Q: ---	
ONGOING	1Q: OK ✓	2Q: ---	3Q: ---	4Q: ---	Show Result
ONGOING	1Q: OK ✓	2Q: OK ✓	3Q: ---	4Q: ---	
ONGOING	1Q: OK ✓	2Q: ---	3Q: ---	4Q: ---	
ONGOING	1Q: OK ✓	2Q: ---	3Q: ---	4Q: ---	Requested
ONGOING	1Q: OK ✓	2Q: ---	3Q: ---	4Q: ---	Requested

Figure 24: Extension Request feedback

Clicking the button shows popup window where you can observe the detail of the request and its result.

Request contents	
Approval Status	Approved
Project Period	Original From Jul 2012 To Jun 2016
	Request From Jul 2017 To Jun 2021
	Approve From Jul 2017 To Jun 2021
TEC	Original 22,500,000,000
	Request 200,000,000
	Approve 200,000,000
Reason for Request	After construction the Bingu National Stadium needs to undergo maintenance period for four years
Reason for the Decision	

Figure 25: Detail of the extension request

## 5.5 Reports

### 5.5.1 Project List

This function shows the project summary based on the TEC and Donor by specifying the responsible ministry and MDA.

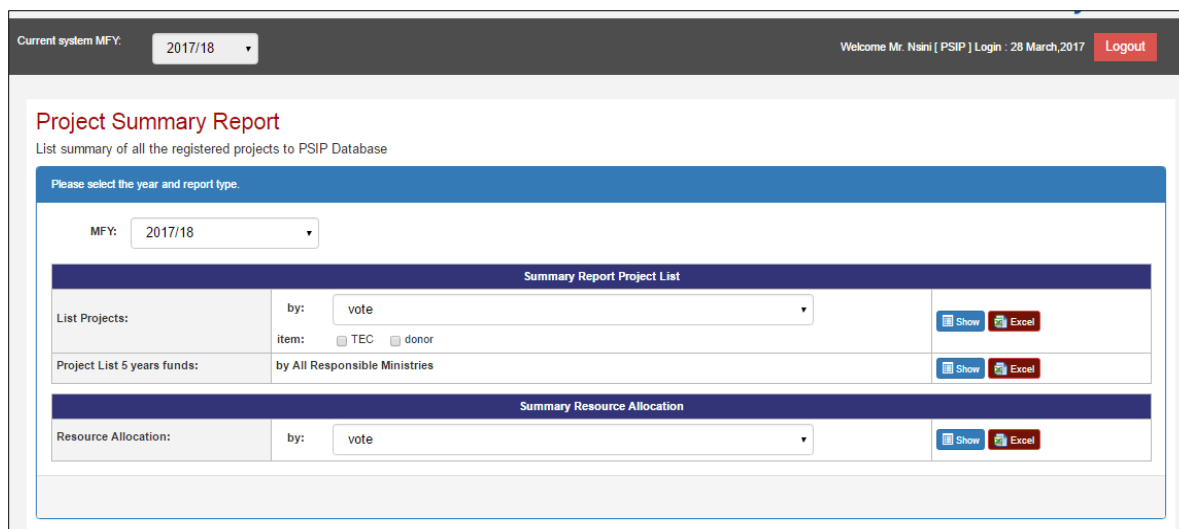


Figure 26: Show project summary report

To view by Vote, select MFY, the vote, check on the TEC or donor, then click show button. Once that is done, the table below is shown.

[050 State Residences] 3 Projects				Submission			Approved		
NO	Project Name	Project Period	Status	Part I	Part II	Total	Part I	Part II	Total
1	[1453] Construction of Security Fence at Kamuzu and Sanjika Palaces	Jul/2015 - Jun/2017	ONGOING	0	299,824,000	299,824,000	0	100,000,000	100,000,000
2	[1456] Rehabilitation of Roads and Drive Ways at State Residences	Jul/2015 - Jun/2018	ENDING	0	2,232,850,000	2,232,850,000	1,456	1,456	2,912
3	[1457] Replacement and Rehabilitation of Plants and Equipment at State Residences	Jul/2015 - Jun/2018	ONGOING	0	887,723,364	887,723,364	0	300,000,000	300,000,000
Sub Total				0	3,420,397,364	3,420,397,364	1,456	400,001,456	400,002,912

Figure 27: Show project summary

**[Note]**

When the MGDS Theme or Priority is selected by user, the grand total does not match as the whole project grand total, since there are projects which do not have the MGDS Theme or Priority.

**[Note]**

If you are using **Microsoft Office 2013/2016** or **Office 2010** versions, when downloading the report, you might have noticed the problem of protected mode which disables to display the contents. Whenever you try to open an Office document (Word, Excel or PowerPoint file) which was downloaded from Internet or was attached in an email, Microsoft Office program opens it in **Protected View** which is also known as **Read Mode** or **Restricted Mode**.

You can turn off Protected View feature in Office 2010 or Office 2013/2016 version, check out following simple steps:

1. First launch any Office program such as Microsoft Word and then click on File menu present in the ribbon.
2. Now click on Options tab present in the left sidebar.
3. It'll open Options window. Now click on "Trust Center" tab given at the end in left-side pane and then click on "Trust Center Settings" button.

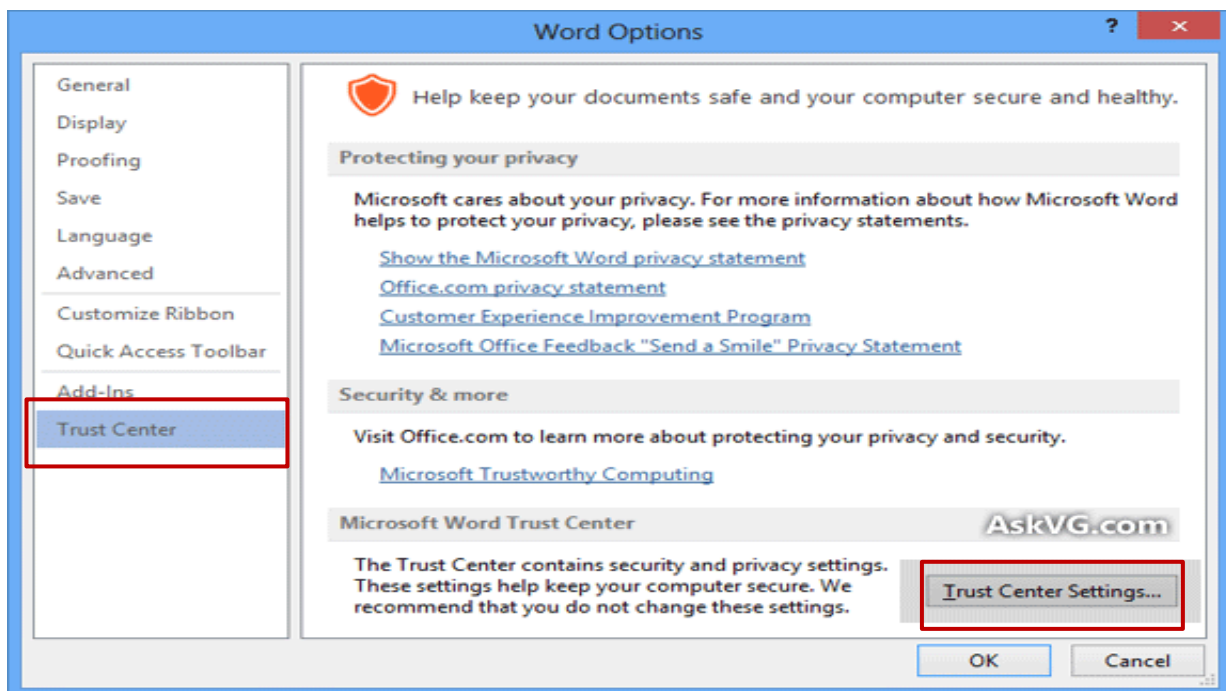


Figure 28: Show protected view window

4. Click on "Protected View" tab and in right-side pane, you'll see following options:  
"Enable Protected View for files originating from the Internet"

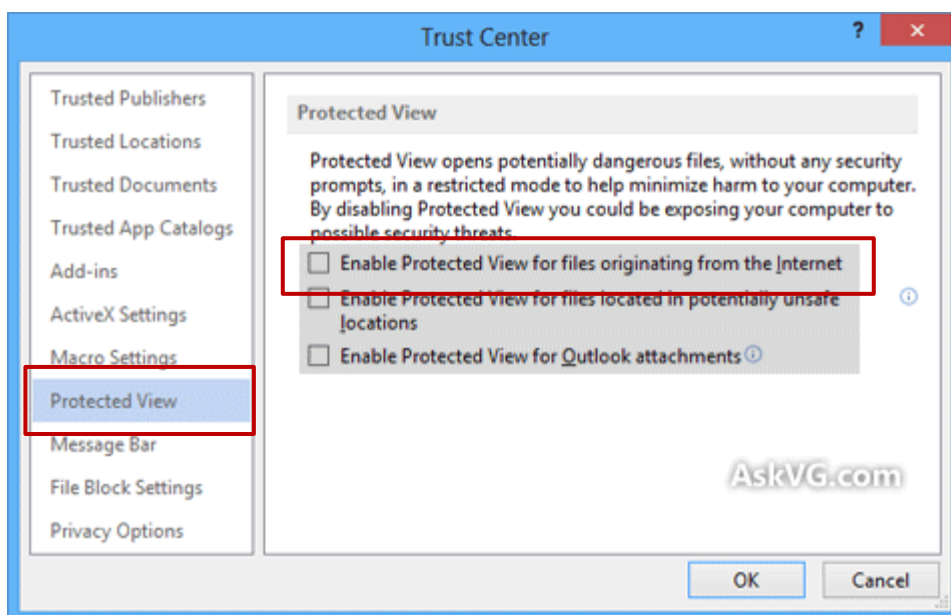


Figure 29: Show trust center window



## 5.6 Download Forms

MDA users can download Project Proposal for;

- New Project Proposal (Blank format)
- New Project Proposal (Pipeline project)
- On-going Project Proposal
- Quarterly Progress Report
- PFM-IT

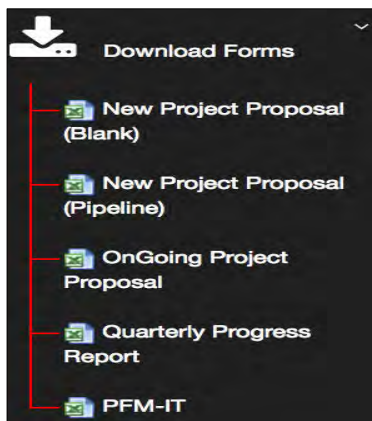


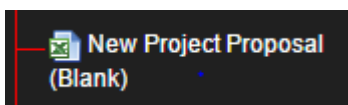
Figure 30: Shows sub menus of download forms menu

**[note]** This download menu is visible only for MDA users, and not available for GUEST users.

### 5.6.1 How to download the PSIP templates

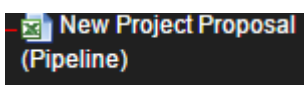
(1) New project proposal (Blank)

Once the sub menu of download new project proposal (Blank) is clicked, the save as window pops up and then the file can be saved.



(2) New project proposal (Pipeline)

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears. If select/unselect all button is checked, all the projects are downloaded. But you can also check the project you want to download and once checked, you can click on the "download selected files" button



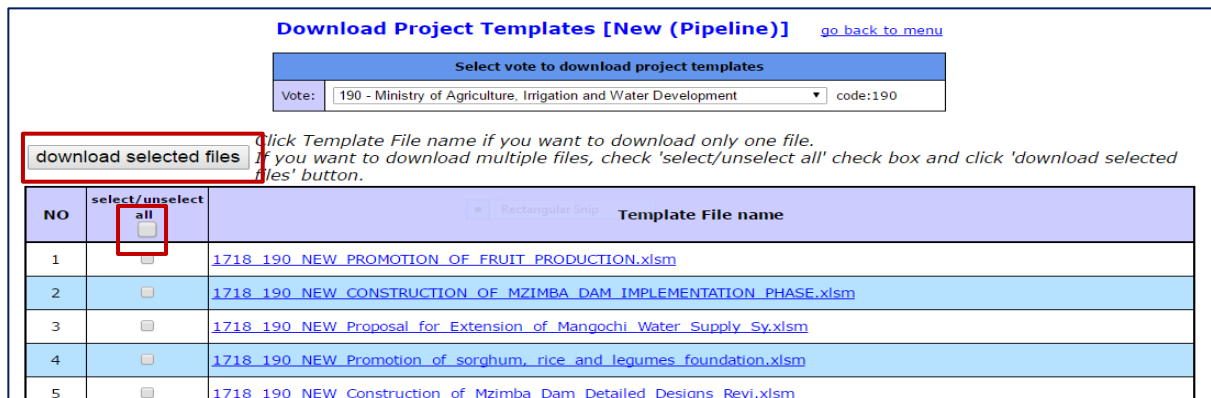


Figure 31: Shows download function for pipeline projects

(3) Ongoing project proposal

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears. If select/unselect all button is checked then all the projects are downloaded. But you can also check the project you want to download and once checked you can click on the download selected files button

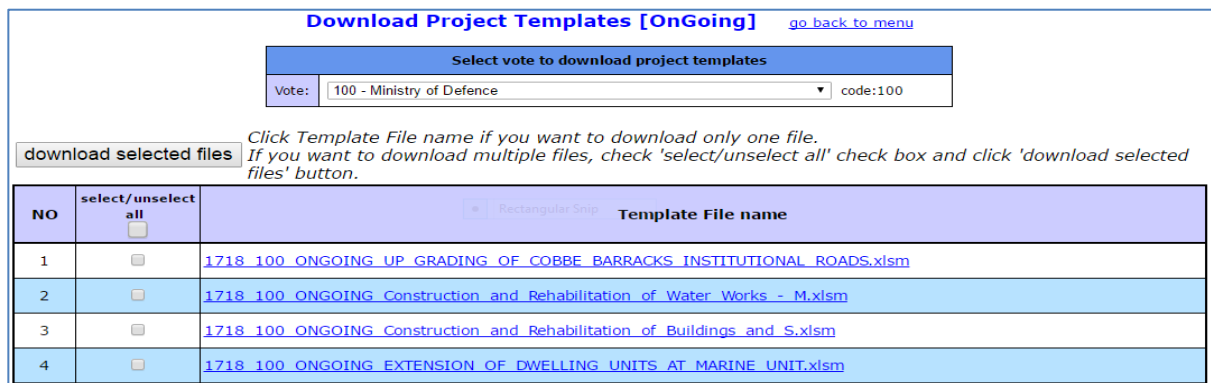
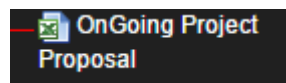
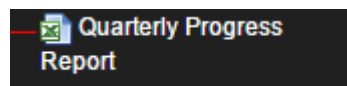


Figure 32: Shows download function for ongoing projects

(4) Quarterly progress reports

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears. If select/unselect all button is checked then all the projects are downloaded. But you can also check the project you want to download and once checked you can click on the download selected files button.



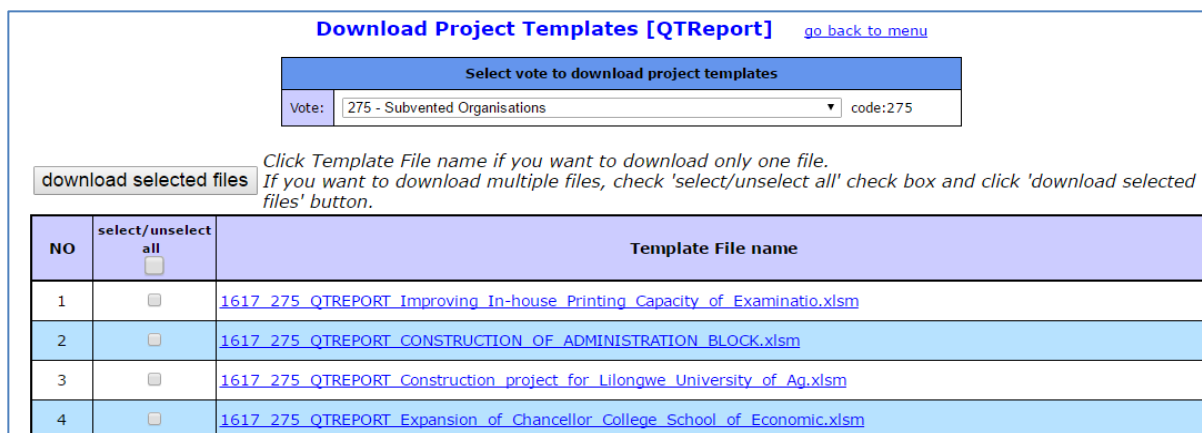


Figure 33: Shows download function for Quarterly reports

(5) PFM-IT

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears. If select/unselect all button is checked then all the projects are downloaded. But you can also check the project you want to download and once checked you can click on the download selected files button.

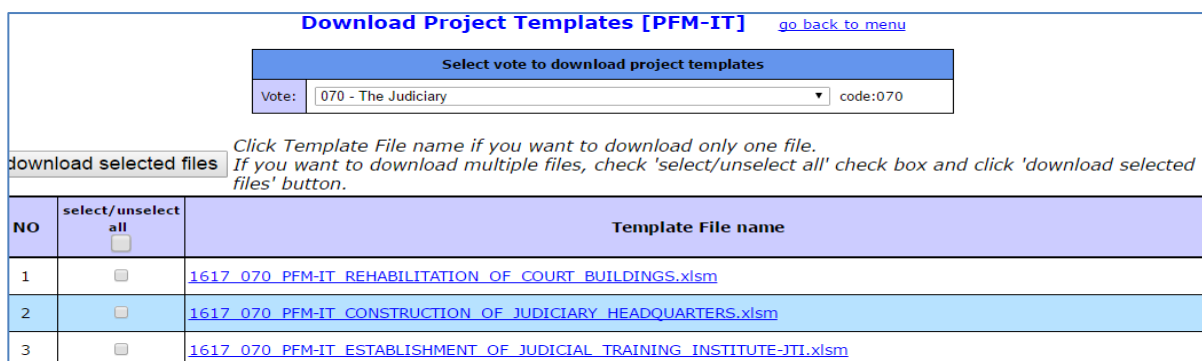
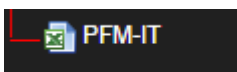


Figure 34: Shows download function for PFM-IT

## 5.7 Information

This is an information function which shows the announcements made by PSIP and PSIP Newsletter.

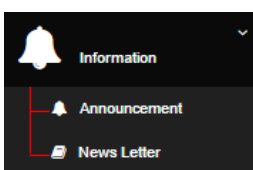


Figure 35: Show the information menu

### 5.7.1 Announcement

- (1) Click on the announcements to navigate to the announcements screen

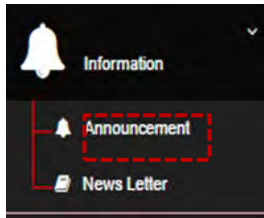


Figure 36: Announcements sub-menu

- The announcements Page

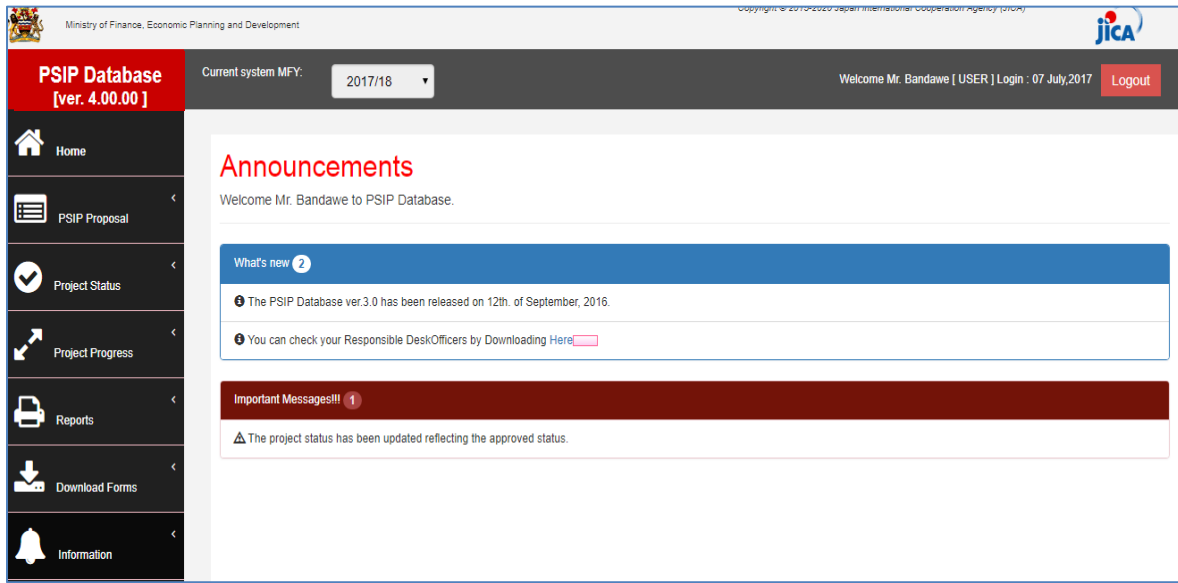


Figure 37: Announcements page

## 5.7.2 Newsletter

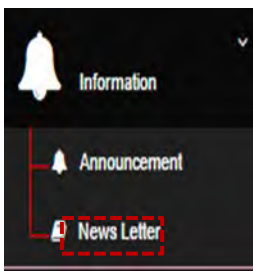


Figure 38: Newsletter sub-menu

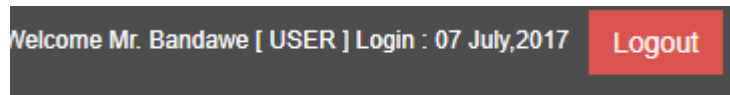
- Newsletter page



Figure 39: Newsletter Page

## 5.8 Logout

A connection called a session is established each time a user login. To terminate that session the user may logout of the system.



## 6. User Privileges

Some restrictions have been placed on the user accounts, which will vary according to the type of user group and the stage of the Public Sector Investment Programming (PSIP) cycle. The access permissions are as follows.

**Table 4: Roles and privilege**

User Group	Rolls and privileges	Targets
Guest User	Guest user can view proposal submissions but cannot download nor view the submission status.	Registered users interested to see the PSIP information including donors
MDA Users	MDA users can view proposal data and download, but no right to edit documents.	MDA users registered to database
PSIP Unit	PSIP officers can edit all Ministries' information such as the project status or appraisal status	The PSIP Officers
Administrator	Administrators will be able to edit all data and manage accounts, database, etc.	IT Officials assigned to maintain the system and database.

## 7. Proposal submission and PSIP Process

### 7.1.1 Proposal Submission flow

Most information of the Proposal and Quarterly Report is “Read only” on the PSIP Database. The original Project Proposal and Quarterly Report are filled in Excel file which MDA users send to the PSIP unit by mail. The PSIP Unit is responsible for the registration of the sent information into the database. If you need to modify the information, please change the contents of the Excel Template and send it again to the PSIP unit.

The following figure represents the proposal submission flow.

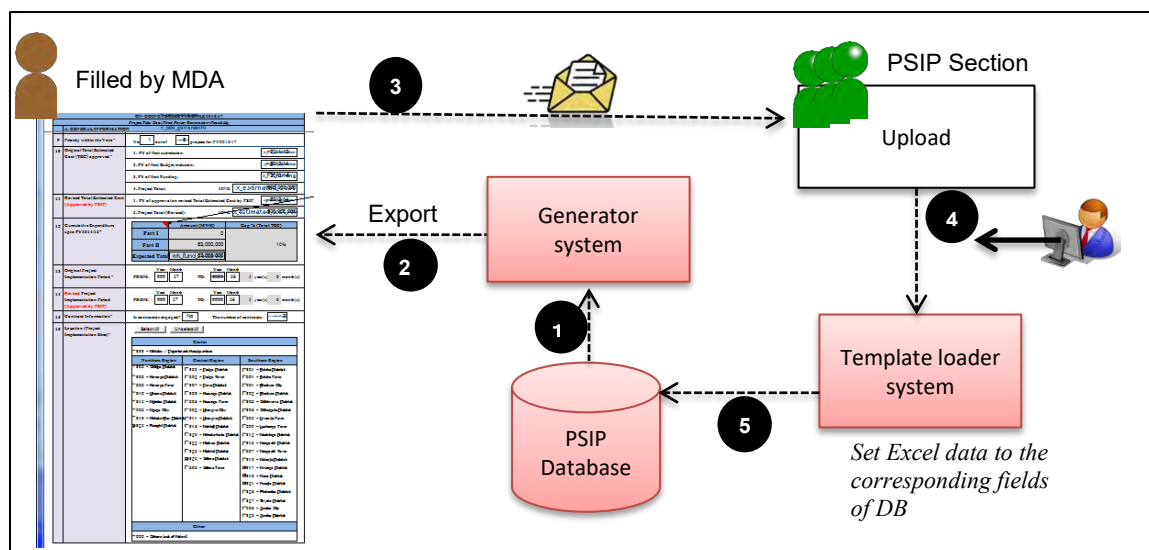


Figure 37: Proposal Submission flow

- 1) The proposal information already registered to the database is retrieved from the system (in case of On-going).
- 2) The retrieved data is exported to the corresponding fields of Excel Template (in case of On-going).
- 3) After MDA users fill in the information in Excel Template, they send it to PSIP Unit.
- 4) At PSIP Unit, the Excel Template is loaded to the system.
- 5) The system finally registers the proposal information to the PSIP Database.

### 7.1.2 During PSIP Process

As described above, MDA users can create information by Excel Template for New and On-going Projects which is after the announcement of Circular No1 and for a certain period until the project submission deadline. If a user needs to change project details of the already submitted project, it is required to contact the PSIP Unit and justify their reason for change. Changing project life span will need authorization by way of Extension Request from MFEPD and hence data revision will be approved by MFEPD.

The MDA users will be given about one month to prepare their proposals. During this period, the PSIP Unit will give them technical assistance on how to fill in the template where necessary. To secure enough time for the proposal appraisal by the PSIP Unit, the proposals must be submitted on time.

## 8. Questions and Answers

Below is a list of questions that a user might ask. If you encounter any problem beyond your control, contact the PSIP Unit on **01 788 888 (Ext: 150/164)** or [psipsubmissions@gmail.com](mailto:psipsubmissions@gmail.com).

## **8.1 System**

### **Q1. I cannot connect to the Database by GWAN connection**

**A:** Firstly, confirm that you are on the GWAN network with your Network Administrator. If you are on the GWAN network, check if your network cable is properly connected. If your cable is connected, check if there is a connection by looking for an icon of network at the bottom right corner of your screen.

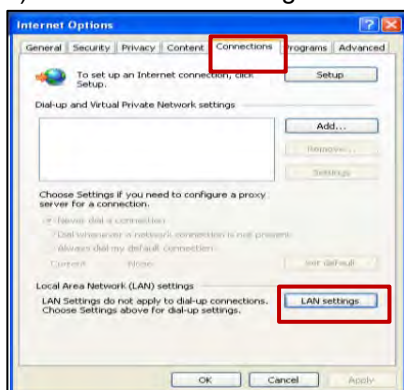
If you are connected and still cannot access the database, call the PSIP Unit to inform that the database is not connected.

## Q2. My connection is slow (Only for GWAN Users)

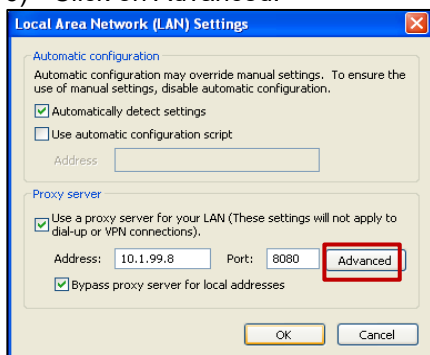
**A:** On the GWAN Network each command goes via the Proxy Server. This sometimes slows the speed with which the user accesses the database.

The users can bypass the GWAN Proxy server for the PSIP Database which allows them a direct connection to the database. This will also enable them to access to the database even when the Proxy Server is down. To bypass the Proxy you can configure the following settings (in case of Internet Explorer):

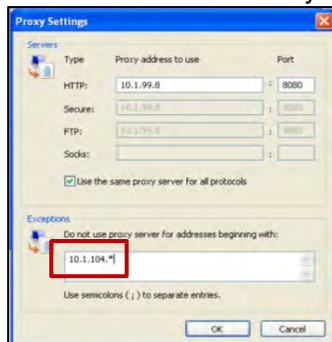
- 1) Go to Tools on the Internet Explorer menu bar.
- 2) On the Drop down list select Internet Options.
- 3) From the window click on Connections on the tabs at the top of the window
- 4) Click on LAN Settings on the window



- 5) For the GWAN connection, you may have already proxy setting with the proxy IP address.
- 6) Click on Advanced.



- 7) Type "10.1.99.\*" on the Exceptions box under "Do not use proxy for addresses beginning with:" which will allow you to bypass the proxy Server.



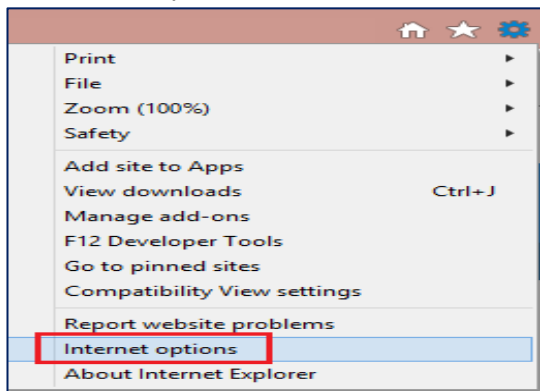
- 8) Click **OK** on the three pages to activate the settings.



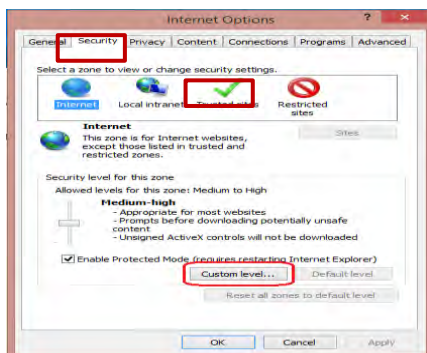
### Q3. How can I enable JavaScript in internet explorer

**A:** The system requires JavaScript enabled since in some pages the JavaScript function is applied. The following procedure explains how to enable JavaScript in Internet Explorer.

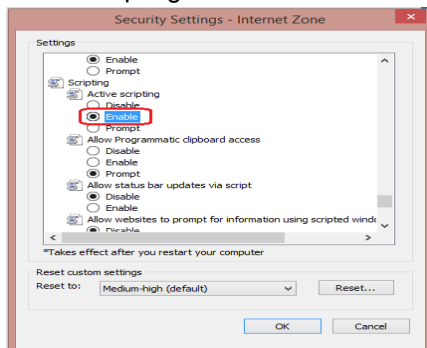
- 1) On the web browser menu, click Tools or the "Tools" icon (which looks like a gear), and select Internet Options.



- 2) When the "Internet Options" window opens, select the Security tab.
- 3) On the "Security" tab, make sure the Internet zone is selected, and then click on the "Custom level..." button



- 4) In the Security Settings – Internet Zone dialog box, click Enable for Active Scripting in the Scripting section.



- 5) When the "Warning!" window opens and asks, "Are you sure you want to change the settings for this zone?" select Yes.
- 6) Click OK at the bottom of the Internet Options window to close the dialog.
- 7) Click the Refresh button to refresh the page and run scripts.

## 8.2 User account

### Q4. How can I obtain my user account?

**A:** Please submit a User Registration form in Annex 1 to the PSIP Unit. This form can be downloaded on the intranet or website.

### Q5. I have forgotten my password

**A:** Please contact to the PSIP administrator, who will reactivate your account. You can renew your password.

### Q6. What is the session?

**A:** For each user who logs into the system, a connection called a session will be created. The session will expire after maximum session time and require the user to login again. The idle state will occur if the user does not press any button nor click on the option.

## 8.3 Project Proposal

### Q7. What is the project code? Where can I get it?

**A:** A project code is the code that the database will assign to uniquely identify each project. The user does not have to worry much about the code because the database will give you for all new projects.  
The project code is a four-digit number.

### Q8. What is a donor code? Where can I get it?

**A:** A user may refer a Donor Code for the main donor that is funding the project. This code is taken from the donor or the Debt and Aid Division, Ministry of Finance.

### Q9. How can I remove a project from the list

**A:** Once the project is registered, it is not allowed to delete. If you want to delete the project, please contact the PSIP unit.

## 9. Definitions and acronyms

Below is a list of definitions, acronyms and abbreviations that have been used in this document.

### 9.1 Definitions

**Table 5: Shows definitions**

Word	Definition
MySQL	An open source database engine used to manage data in a relational database management system.
PHP	Is a scripting language used to write web applications.
User	A person who makes use of a system.

Database	Consists of an organized collection of data for one or more multiple uses.
----------	--

## 9.2 Acronyms and abbreviations

Table 6: Shows acronyms and abbreviations

Acronyms and abbreviations	Definitions
Admin	Administrator of the system
CEPSIP	Capacity Enhancement for Public Sector Investment Programming
DAS	Development Assistance Strategy
GWAN	Government Wide Area Network
JICA	Japan International Cooperation Agency
MFEPD	Ministry of Finance, Economic Planning and Development
PSIP	Public Sector Investment Program
URL	Unified Resource language

## 10. Annexes

### Annex1: Registration Form

PSIP Database User Account Registration Form	
<i>If users need an account they are required to fill in the form bellow and hand it in to the PSIP Unit.</i>	
Date:	
User ID: (Up to 20 characters)	
First Name:	
Last Name:	
Ministry:	
Position:	
Office Location:	
P.O Box:	
E-mail 1:	
E-mail 2:	
TEL 1:	
TEL 2:	
Fax:	
Cell 1:	
Cell 2:	
Signature	

---

#### Official Use only

<b>Approved:</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No     [Reason: _____ ]
Approved Date	
Initial Password:	
Approved By:	
Registered By:	
Signature:	



**Government of Malawi**

# **Public Sector Investment Programme (PSIP)**

## **PSIP Database (Ver. 4) User Manual For PSIP Unit**

The Ministry of Finance, Economic Planning and Development  
Department of Economic Planning and Development  
P. O. Box 30136  
Lilongwe 3, Malawi

**July 2017**

**Supported by**

**Project for Capacity Enhancement in Public Sector Investment Programming II  
(CEPSIP II)**

**Japan International Cooperation Agency**



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## Document History for PSIP Database

Date	Revision	By	Remarks
20 May 2016	2.0	Yuko Shiraishi	Initial version
31 Mar 2017	3.0	Yuko Shiraishi	PSIP Database Ver. 3 new aspects included
17 Apr 2017	3.04	Yuko Shiraishi	Layout adjusted
25 July 2017	4.00	Afiske Benjamin Nsini	PSIP Database Ver. 4 new aspects included
25 July 2017	4.00	Thokozani Bandawe	PSIP Database Ver. 4 new aspects included
25 July 2017	4.01	Gift Njoloma	PSIP Database Ver. 4 new aspects checked
10 Aug 2017	4.02	Afiske Benjamin Nsini Thokozani Bandawe	New screenshot and functions included

## **1. Introduction**

As part of the implementation of the Capacity Enhancement for Public Sector Investment Programming, a Public-Sector Investment Programming (PSIP) database was firstly developed in the CEPSIP-1 Project<sup>1</sup>. The database system is custom web-based software solution using PHP and MySQL database with a Web front-end. Being web-based, the system is accessible to all on the Government Wide Area Network (GWAN) and Internet users. Actually, the database serves as a platform for submitting project documents and handling other PSIP management processes.

The next phase of CEPSIP-2 project<sup>2</sup> started aiming at the improvement of Database and Manuals/Handbook for PSIP, further harmonization of the process of PSIP, and the capacity building to use improved Database and Manuals/Handbook for PSIP. As one of the activities to attain those purposes, the system was upgraded to Ver.1.1 to reflect the modification of proposal templates for fiscal year 2014/15, as well as the several environmental changes. The second edition covered those system modifications applied until March of 2014, where the submission of Word Proposal Template was employed.

The next version 1.5 was launched after the proposal templates for fiscal year 2015/16 was released. The design and system structure followed the ver.1.1, developing new mechanism of Excel Template Proposal for the submission together with other new functions.

The PSIP Database was upgraded to ver.2.0 released on December 2015, in line with the new proposal templates fiscal year 2016/17 where the additional new features to support appraisal decision procedures and quarterly report managements were introduced. This version applies the whole refactoring of the system (mainly database and program structure), to be able to get the better maintainability, scalability and flexibility, which means that the upgraded version enables to respond to the flexible and quick modifications according to the organizations or business requirements. The design of the screens on the Web has been completely renewed as well for the better user interface.

On September 2016, the version was upgraded to 3.0 after the Excel Proposal Template ver.3.0 was released. In new version, the information that had been managed until then individually or somewhere in local storage was integrated into the centralized database. This centralized management of information dynamically improved the PSIP staff's business process by hand to systematic one. With this version, the submitted proposal by MDA user

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<sup>1</sup> CEPSIP 1; Capacity Enhancement in Public Sector Investment Programming Phase I (from July 2009 to July 2011)

<sup>2</sup> CEPSIP 2; Capacity Enhancement in Public Sector Investment Programming Phase II (from March 2013 to September 2017)

is appraised on the Web to make quick decision, what was discussed in the ministerial meeting is all recorded in the database effectively to support the appraisal and the ability to make budgetary transitions. Further, as an MDA user support, the extension request submitted by MDA user or feedback of the appraisal is visible on the Web.

In the 2018/19 fiscal year, the database will now start using the new version 4.0, released on August 2017. This latest version focuses on providing better feedback to the MDA users with the valuable information such as the result of the requested project extension. The submitted reports by MDA users such as Project Extension Request or Completion Report is displayed as well on the Web page with the same Excel format. Regarding the budget, the requested amount and approved budget can be traced on the Status & Budget screen for your reference. On the other hand, the powerful management tool has been provided for PSIP Unit where all the process of each project can be managed and controlled from its submission until approval of the budget.

## **2. What is PSIP Database**

### **2.1 Overview of PSIP Database**

The overall objective of the PSIP is to facilitate efficient utilization of Malawi's human, natural, physical and social resources to improve the country's economic prospects and further development of public services. This objective is attained through a careful and thoughtful process of planning and management of development projects across the sectors.

To achieve this objective, PSIP provides a mechanism that screens and confirms public investments projects to ensure that they are in line with the priority areas of the MGDS and that the implementation of such projects is done in the most cost effective and efficient manner. The PSIP Database tool was developed to contribute to the PSIP Unit and stake holders to achieve this goal.

All MDA users are required to submit their proposed development projects to the PSIP Unit under Development Planning Division of the Ministry of Finance Economic Planning and Development (MFEPD) during the budget preparation process. The PSIP unit validates these project proposals. After the deadline of PSIP proposal submission, a series of a ministerial meeting is convened where Ministries present their project proposals. The proposals are screened by MFEPD; this process involves discussions with line ministries so that programs/projects that do not conform to ministerial, sectoral, or national goals and objectives are not accepted for inclusion in the PSIP. The project proposals are analyzed and then are either approved, rejected or referred back to line Ministries for further refinement.

The database system allows MDA users to submit their proposals electronically through an Excel Template file which data is later stored systematically to the Database by PSIP Unit staff. The submitted proposal is expected to permit MDA users to search and list all the projects that are presented to the PSIP Unit and even view details pertaining to projects that are implemented, ended, rejected, pipelined or terminated including the information in the past. The Monitoring and Evaluation Unit will easily link and correspond with the Development Planning Division since they can all access and refer to the same database. This will minimize problems that may arise due to lack of adequate information when monitoring and evaluating projects by the Malawi Government. Furthermore, this process will not only reduce the time it takes to submit, approve and monitor projects, but also decrease a lot of redundancies and human errors that were found in the previous manual system.

## 2.2 The roles of MDA

The planning section of each ministry plays a leading role in PSIP formulation at the line ministry level. By following the PSIP guidance, the planning section facilitates the compilation of data through the pre-designed template on the PSIP database, consolidates and submits the proposals to MFEPD. Then the MFEPD and the planning section of each line ministry have meetings to decide the project list to be included in the PSIP while considering the allocation amount of the development budget to each project within a given ceiling figure. The compiled data from line ministries is then submitted to MFEPD.

## 3. System Requirements

The following table shows supported versions and conditions of the system.

**Table 1: System Requirements**

System	version	Remarks
Excel Proposal Template	ver. 4.0 or higher version	
Operating System	Windows 7 or later version	
PSIP Database Web	ver. 4.0 or higher version	
Proposal Loader system	ver. 4.0 or higher version	
Proposal Generator system	ver. 4.0 or higher version	
Browser	<ul style="list-style-type: none"> <li>• Internet Explorer 10 or later</li> <li>• FireFox higher than ver.45</li> <li>• Chrome higher than 49</li> </ul>	<ul style="list-style-type: none"> <li>- JavaScript must be enabled.</li> <li>- Pop-up windows should be enabled.</li> </ul>

This document assumes that the computer system has connection to the GWAN network or has direct internet connection to use PSIP Database application.

### 3.1 Intended Audience

This document is intended for PSIP desk officers who have PSIP role in the database.

## 4. Access to the System

You can access to the system by the following URL address.

**Table 2: Access to the system**

URL address	Type of connection	Who can connect	Observations
1 <a href="http://psip.malawi.gov.mw">http://psip.malawi.gov.mw</a>	- Internet - GWAN intranet connection	- who has Internet connection  - who connects to the GWAN network with Intranet connection  - who connects to the JICA network at PSIP office	If your network is GWAN or JICA Wi-Fi connected, the connection will be made by Intranet.  If you are out of GWAN having your own Internet connection from outside (such as Airtel Malawi), the connection will be by Internet.

### 4.1 How to access to the PSIP Home Page

Enter the above URL address to your browser either by Internet or Intranet connection according to your environment.

- 1) Open your browser (Internet Explorer, Firefox or Chrome)
- 2) In the address bar of the browser, type in;

<http://psip.malawi.gov.mw>

This will be immediately redirected to the secure page “<https://psip.malawi.gov.mw>” as seen in the Figure below.



**Figure 1: Address bar**



**[note]** The difference is that what you enter is normal http protocol. The system immediately redirects to “https” secure protocol where all the information is encrypted.

3) This address takes you to the PSIP home page as seen below.

**Malawi PSIP Portal**  
Ministry of Finance, Economic Planning and Development

**Welcome to Malawi PSIP Portal.**

**General Information**

- \* PSIP Database 4.0 is now available! Click [\\*HERE\\*](#) to login.
- \* 2018/19 PSIP Circular is available! Click [\\*HERE\\*](#) to download.
- \* 2018-19 PSIP Guideline & Attachments.pdf under 2018/19 PSIP Circular contains 'Template', 'Progress Report Format' and 'PFM-IT Format' as attached. To submit required templates or formats, first please [login to PSIP Database](#), go to 'Download Forms' from the left menu and select the forms you want to download.
- \* To obtain an user account, please download and fill in the [user registration form](#) and hand it in to the PSIP Section or Email it to [psipprojects@gmail.com](mailto:psipprojects@gmail.com).
- \* If you have any question or concern, or you do not remember Login ID or password, please feel free to contact PSIP Section on 01-788-888 (Ext: 150/164) / 01-788-278(Direct) or [psipsubmissions@gmail.com](mailto:psipsubmissions@gmail.com).
- \* Contact the Deskofficers : [Loyce Fatch MDA's](#) | [Dan Gareta MDA's](#) | [Daudi Chinong'one MDA's](#) | [Shalom Ghambi MDA's](#) | [Chikondi Phiri MDA's](#) | [...](#)

**Actual status of Proposal Template submission by votes**

Submitted/Uploaded: Indicates the number of proposal templates submitted to PSIP section and uploaded to PSIP Database

NO	Vote	Vote Code	Submitted/Uploaded
1	050	State Residences	0
2	060	National Audit Office	0
3	070	The Judiciary	0
4	080	National Assembly	0
5	081	Office of the Director of Public Officer's Declarations	0
6	090	Office of the President and Cabinet	0
7	093	Department of Human Resources Management and Development	0

Figure 2: PSIP Home Page

This page has a menu on the left pane which will allow users to navigate easily from one page to the other. The home page is available for all users; in fact, no authentication is required to be able to obtain useful public information such as several manuals, reports and handbooks.

On the main page, the general information also shows some messages to the visitors.

Below the general information, actual status of current Fiscal Year Proposal Template submission by votes can be viewed by all visitors. This represents the number of projects proposals sent by each vote.

## 4.2 How to access to the PSIP Database

To use the PSIP Database system, you are supposed to be authenticated in the database as a user having Login ID and password registered beforehand.

1) To enter the database, click on 'Login to PSIP Database' from the left menu.

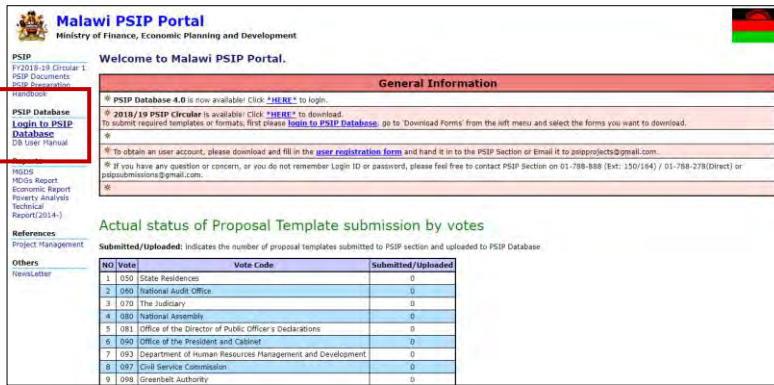


Figure 3: How to access to the PSIP Database

2) A page will pop up requesting them to enter a password and username.

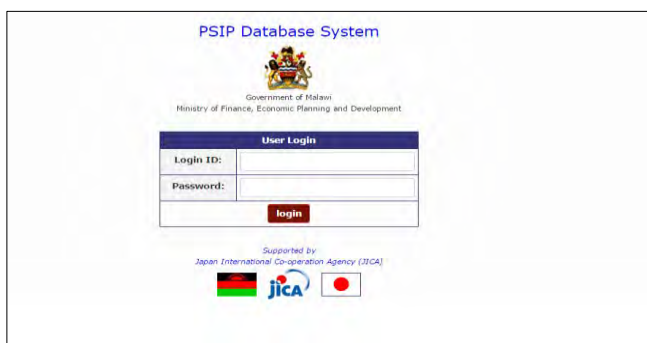


Figure 4: PSIP Database Login Screen

All users of the system are required to input Login ID and Password. When a user logs in, a connection called a session will be created. The session will be expired and require the user to log in again, if the user stays idle, that means, if the user does not click the submit button nor react for certain session maximum time.

**[note]** Be careful that Login ID and Password are case sensitive, i.e. "User" and "user" are not the same.

If the login authentication is successful, it takes you to the top page of announcement of PSIP Database.

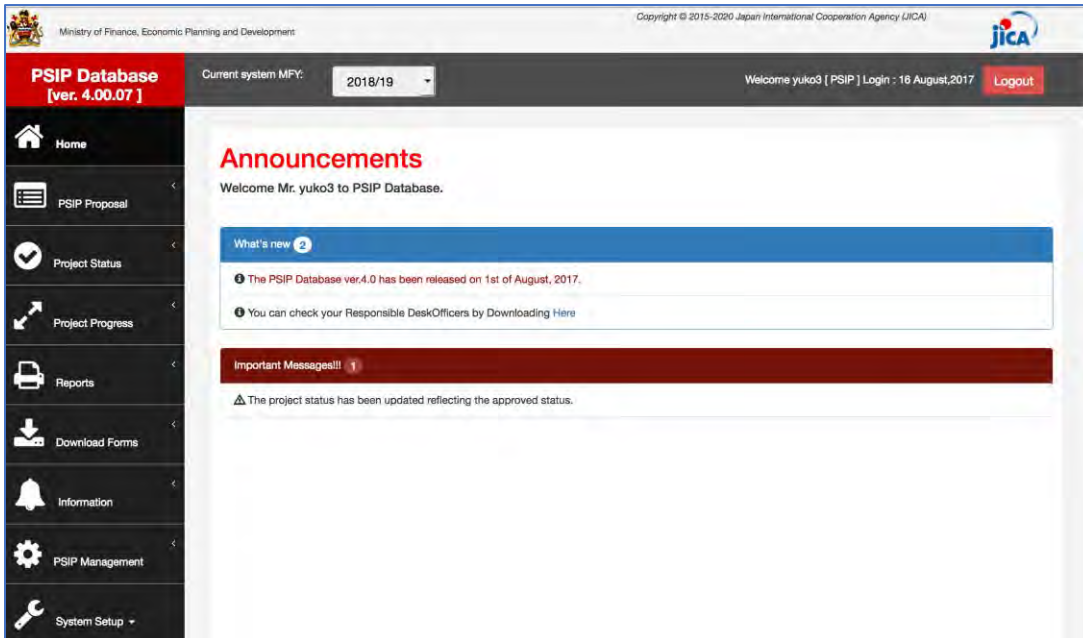


Figure 5: Announcements screen

### 4.3 How to obtain Login ID

A user is required to submit a User Registration form in Annex 1 to the PSIP Unit to obtain the Login ID. This form can be downloaded from the PSIP portal top page. After you fill in your profile and password, send it to the PSIP Unit who will register your account to the Database and provide you the temporary password. The first time your login, you are required to enter this temporary password and change it to new password.

## 5. PSIP Database features and functions

Let's see the main functions displayed on the menu of the left pain of the window. The menu has the submenus shown when you click the item.

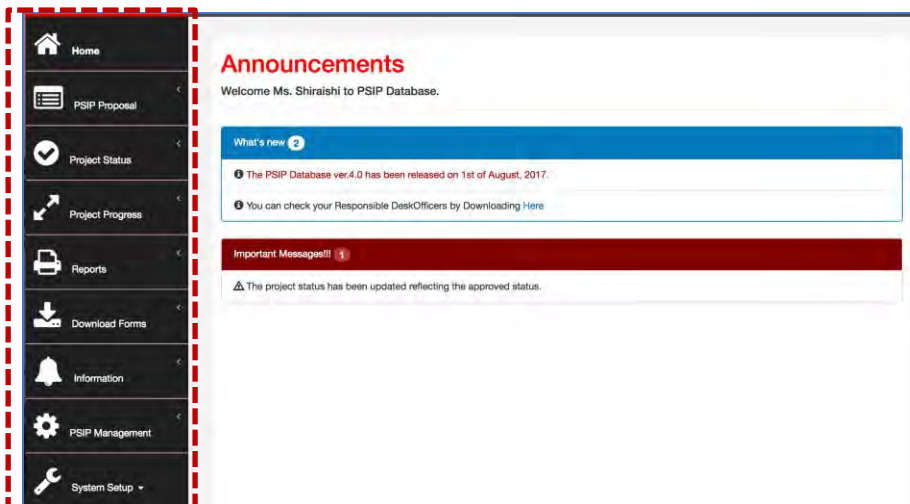


Figure 6: Database Menu

## 5.1 Home/Announcements

After your successful login to the system, the Announcement page of PSIP Database is on top. It displays the latest news and useful information regarding the PSIP activities and the system. It may sometimes display warning messages individually to your Ministry. It is therefore recommendable for the user to every time check the announcements before using the system. The page also displays a feature of Desk Officers where you can download and see your PSIP desk officer.

### 5.11 View names of PSIP Desk-officers and their responsible MDA Portfolio

To view the names of PSIP Desk-officers and their MDA portfolio, click on the pop up in the announcements screen, which will navigate to matrix window of desk officers.

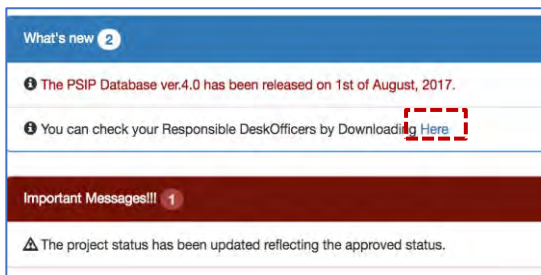


Figure 7: Announcements Screen

## 5.2 PSIP Proposal

PSIP Proposal menu contains the information regarding proposals, such as Project Proposal details, Summary of the submitted projects and Submission status of the proposals by MDAs.

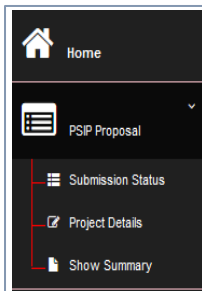


Figure 8: PSIP Proposal submenu

### 5.2.1 Submission Status

All the projects are shown in the Submission Status list presenting the submission and uploaded status.

Project Template Submission Status					
Fiscal Year: FY2017/18		Vote: -- All Votes --			
Number of Projects: Submitted=301, Loaded=314					
Vote: 050 - State Residences					
No.	Project Code	Project Title	Type	Submitted	Loaded
1	1100	Construction and Rehabilitation of State Houses and State Lodges	Ongoing	1	1
2	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	Ongoing	1	1
3	1456	Rehabilitation of Roads and Drive Ways at State Residences	Ongoing	1	1
4	1457	Replacement and Rehabilitation of Plants and Equipment at State Residences	Ongoing	1	1
Vote: 070 - The Judiciary					
No.	Project Code	Project Title	Type	Submitted	Loaded
1	1168	CONSTRUCTION OF COMMERCIAL COURT	Ongoing	1	1
2	1169	CONSTRUCTION OF JUDICIARY HEADQUARTERS	New	1	1
3	1700	REHABILITATION OF COURT BUILDINGS	Ongoing	1	1
Vote: 080 - National Assembly					
No.	Project Code	Project Title	Type	Submitted	Loaded
1	1462	Construction of Parliament Building-Phase 2	New	1	1

Figure 9: Submission Status screen

The number “1” on the corresponding column means that it is registered successfully on each status. The following are the two status of the submission:

Table 3: Status of the submission

Submission Status	Meaning	Remarks
Submitted	The proposal is submitted by the vote.	
Loaded	The proposal is uploaded to the database by the PSIP unit.	

This list can be used for confirmation if proposal is in the PSIP database.

**[note]** This screen is visible for MDA users, but not available for GUEST users.

### 5.2.2 Project Details

Project details will list you the submitted project proposals, by selecting FY, Vote in a drop-down list or project status.

1) Select the conditions to list the projects

**MFY**; select the FY you are interested in. You can select not only corresponding year, but past proposals are also available.

**Vote**; choose the vote which project you want to filter.

**Status**; check/uncheck the project status to filter the projects.

2) Press the Search button and the corresponding projects are shown according to your conditions with the number of rows. The project status is also displayed in the list.

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries Search:

No	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING
3	State Residences	1456	Rehabilitation of Roads and Drive Ways at State Residences	2015/07 ~ 2018/06	ONGOING
4	State Residences	1457	Replacement and Rehabilitation of Plants and Equipment at State Residences	2015/07 ~ 2018/06	ONGOING
5	The Judiciary	1188	CONSTRUCTION OF COMMERCIAL COURT	2012/07 ~ 2018/12	ONGOING
6	The Judiciary	1189	CONSTRUCTION OF JUDICIARY HEADQUARTERS	2017/08 ~ 2021/07	NEW
7	The Judiciary	1700	REHABILITATION OF COURT BUILDINGS	2017/07 ~ 2020/06	ONGOING
8	National Assembly	1482	Construction of Parliament Building-Phase 2	2018/09 ~ 2025/08	NEW
9	National Assembly	1897	Modernization of Parliament for Effective Representation Project	2017/07 ~ 2022/06	NEW
10	Office of the President and Cabinet	1929	Project for the Enhancement of Capacity in Public Policy Formulation, Analysis, Monitoring and Evaluation	2017/07 ~ 2019/10	NEW

Figure 10: Project Proposal List

**[note]** As a default, all the status is selected. If you want to unselect all, uncheck the “Check all” checkbox. If no status is selected, anyway all the projects of any status will be shown including the projects without status.

Status:  New  Ongoing  Pipeline  Pending  Ending  Rejected  Terminated  Completed  Check all

**[note]** Project Status for "coming FY" indicates requested status by MDAs (before approval), while those for other FYs indicate approved ones.

3) Other useful functions

- Search by keyword

After you list all the projects, if you want to filter more in detail with some keywords, enter the word into the “Search” textbox, and only the projects that hit with the corresponding keyword will be listed on the table.

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries Search:

No	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 11: Search by keyword

- Sort on the title of the table

You can sort the list table clicking the title (No, PSIP Code, Title, Type, etc.).

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries Search:

No ^	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 12: Sort function

- Print function

By clicking the printing function button, you can print the filtered table to print image, PDF, CSV (Excel) or “Copy and Paste” to where you want.

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries Search:

No ^	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 13: Print function

- Show entries function

By selecting the Show entries button, you can specify the number of projects appearing on screen e.g. 50,100,200 or all

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries Search:

No ^	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 14: Show entries function

### 5.2.3 Project Detail Information

By selecting the Project Code on the list, it takes you to the project detail information page. Project Detail Information is grouped into several tabs. Clicking on the tabs will open a corresponding page according to the project status. New Project Registration has tabs namely General Info / Outline / Total Project Cost Matrix / Annual Project Cost Matrix / Financing/ Monitoring Evaluation/Proposal Applied FY/Project Management Structure, while On-going project has tabs; General Info / Outline/Project Performance / Annual Project Cost Matrix / Monitoring Evaluation / Proposal Applied FY/ Project Management Structure.

Basically, the contents displayed in the Project Details are the same as Excel Template format. On the top of the page the title, the status and selected year are always visible.

ONGOING Project: Construction and Rehabilitation of State Houses and State Lodges [1100]  
 [Selected project year: 2017 ]

PSIP Database / PSIP Proposal / Project Details

Exit pdf print

General info Outline Project Performance Annual Project Cost Matrix Monitoring Evaluation Proposal Applied FY Proj.Mngmt. structure

**You can switch tab**

General Information	
1 Project Code	Project Code: 1100 PSIP Previous Code: 08-050-001
2 Project Title *	Construction and Rehabilitation of State Houses and State Lodges
Project Type *	Development/Infrastructure
Readiness of Project *	<input type="checkbox"/> Ready to start designing <input type="checkbox"/> Feasibility study completed <input type="checkbox"/> Land Acquisition is completed <input type="checkbox"/> Hiring of contractors done <input checked="" type="checkbox"/> Project is under implementation <input type="checkbox"/> Others If you select Others, please specify here what it is?
Flagship Project	
Project Origin: *	Presidential/Cabinet/Ministerial Directive
3 Alignment to MGDs: *	MGDs: Yes MGDs Theme: 150 Improved Governance

Figure 15: Project Detail screen

- Save function

PSIP staff can edit some parts of the template and save by clicking on save button. These are the Original TEC of Project, if project is a flagship and period of implementation.

PSIP Database / PSIP Proposal / Project Details

Save pdf print

Figure 16: Save function

- Print output function

Print function is available in each page and PDF button that downloads the template into PDF format.

PSIP Database / PSIP Proposal / Project Details

Save pdf print

Figure 17: Print function

### 5.2.4 Show summary

Instead of displaying the specific proposal information one by one, you can list all the projects in one table summarizing the submitted proposal information.

- 1) Go to PSIP Proposal-> Show summary from the left pain menu.



**Project Summary [Form 1]**

Fiscal Year FY **2017/18** Vote **-- All Votes --**

Total: 328 Projects

	FY2017/18 Part I requested	FY2017/18 Part II requested
New	228,321,231,980	484,775,173,966
Ongoing	207,446,580,998	229,478,772,201

Download

No.	Vote	NEW/ONGOING (FY2016/17 Status)	Project Title	Project Purpose	FY2016/17 Start-End (Orig)	FY2016/17 Start-End (Revised)	FY2017/18 Start-End (Orig)	FY2017/18 Start-End (Revised)	FY2016/17 TEC (MK)
1		ONGOING (ONGOING)	1100 - Construction and Rehabilitation of State Houses and State Lodges	To improve the accommodation and work environment for the Head state through rehabilitation of State Houses and lodges	Jul/2008 - Jun/2016 (8years)	Jul/2015 - Jun/2018 (3years)	Jul/2008 - Jun/2016 (8years)	Jul/2015 - Jun/2018 (3years)	50,000,000
2		ONGOING (ONGOING)	1453 - Construction of Security Fence at Kamuzu and Sanjika Palaces	To Construct and rehabilitate security fence at Kamuzu and Sanjika Palaces	Jul/2014 - Jun/2015 (1year)	Jul/2015 - Jun/2017 (2years)	Jul/2014 - Jun/2015 (1year)	Jul/2015 - Jun/2017 (2years)	50,000,000
3		ONGOING (PENDED)	1456 - Rehabilitation of Roads and Drive Ways at State Residences	To improve passability of roads in State Houses and facilitate timely delivery of State house business through rehabilitation of roads and drive ways	Jul/2014 - Jun/2017 (3years)	Jul/2015 - Jun/2018 (3years)	Jul/2014 - Jun/2017 (3years)	Jul/2015 - Jun/2018 (3years)	50,000,000

Figure 18: Summary screen

This summary list is quite useful to compare all the projects since it shows TEC, Funding of the recent two years, information of donors and contacts at once.

2) To get the summary list in Excel format, you can click “Download” icon.

**[note]** The project summary is one of the main tools for the appraisal. Be careful that if your proposal is not found here, it means that the project may be excluded from the appraisal. If your submitted project is not found in spite you have sent it to the PSIP unit, please contact to the PSIP staff.

### 5.3 Project Status Menu

#### 5.3.1 Status & approved Budget

The Status and approved Budget submenu shows the list of results of project status and approved budget and the appraisal decision.

(1) Specify the financial Year FY, Vote and Status as search conditions

**Status & Approved Budget**

List the results of project status and approved budget

Please select Filter: Year, Vote and project status

MFY: 2017/18

Vote: Please choose an option

Status:  New  Ongoing  Pipeline  Pended  Ending  Rejected  Terminated  Completed

Check all Search

Figure 19: Status & Approved Budget

(2) The projects that meet the search conditions are listed in the table.

no	vote	Previous Code	Project Title	Submission Status		Appraisal Decision	Approved Budget		Mid Year Revision		Actions	
				Status	Part I(MK01)		Part II(MK02)	Status	Part I(MK01)	Part II(MK02)		Status
1	[050] State Residences	08-050-001	[1100] Construction and Rehabilitation of State Houses and State Lodges	ONGOING	0	400,023,956	ONGOING					Update
2	[050] State Residences	14-050-002	[1400] Construction of Security Fence at Harcourt and Stanley Palaces	ONGOING	0	299,624,000	ONGOING					Update
3	[050] State Residences	14-050-006	[1490] Rehabilitation of Roads and Drive Ways at State Residences	ONGOING	0	2,232,850,000	PENDING					Update

Figure 20: Status and Approved Budgeted list

The appraisal decision made by PSIP desk officer is shown in the appraisal decision column. The project has the proposed status submitted by MDA users through Excel Proposal Template. Then the status will have the result of appraisal. The following figure shows how the transition of the status of New, On-going and Pipeline goes.

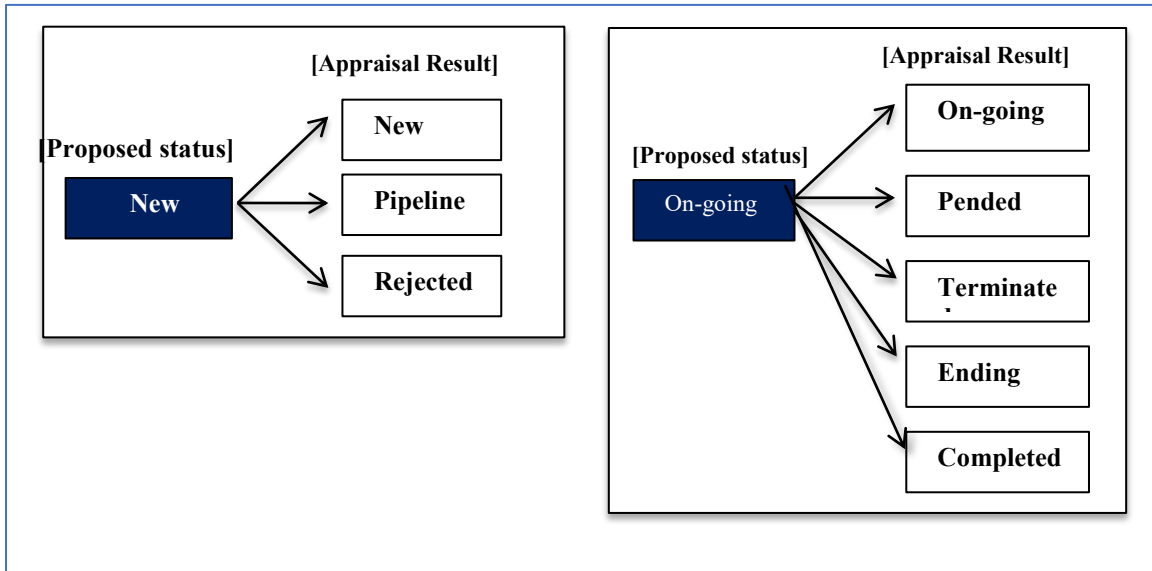


Figure 21: Transition of Project Status

The Proposed status by submission is set as project status after the proposal submission of the projects by MDA users. After the appraisal, its decision is set around mid-February overwriting the original status. The approved status column after the Parliament is inserted in the table as shown in the figure below. This means that the approved status column represents the final decision of the project which will be set around August.

no	vote	Previous Code	Project Title	Submission Status			Appraisal Decision	Approved Budget			Mid Year Revision			Actions	
				Status	Part I(MKW)	Part II(MKW)		Status	Part I (MKW)	Part II(MKW)	Status	Part I (MKW)	Part II(MKW)		
1	[050] State Residences	08-050-001	[1100] Construction and Rehabilitation of State Houses and State Lodges	ONGOING	0	400,023,956	ONGOING	PENDED							<a href="#">update</a>
2	[050] State Residences	14-050-002	[1453] Construction of Security Fence at Kamuzu and Sanjika Palaces	ONGOING	0	299,824,000	ONGOING	ONGOING		100,000,000		ONGOING			<a href="#">update</a>
3	[050] State Residences	14-050-005	[1458] Rehabilitation of Roads and Drive Ways at State Residences	ONGOING	0	2,232,850,000	ONGOING	ENDING	1,456	1,456					<a href="#">update</a>
4	[050] State Residences	14-050-006	[1457] Replacement and Rehabilitation of Plants and Equipment at State Residences	ONGOING	0	887,723,384	ONGOING	ONGOING		300,000,000		ONGOING	1		<a href="#">update</a>
5	[060] National Audit Office		[1951] Capacity Building Programme	NEW	0	0	NEW		380,000,000						<a href="#">update</a>
6	[070] The Judiciary	09-070-004	[1168] CONSTRUCTION OF COMMERCIAL COURT	ONGOING	0	0	ONGOING	ONGOING		600,000,000					<a href="#">update</a>

Figure 22: Four status of the project

[note] the “Project Status” is always reflecting the most actual status.

### 5.3.2 Edit Appraisal Results of Proposals

By clicking the “update” button, it takes you the Edit Appraisal Results of Proposals screen. The status can be adjusted by clicking on the pointers in the status bar which then shows a dropdown list of the status.

**Edit Appraisal Results of Proposals**

PSIP Database Top / Results of Appraisal / Edit Result of Appraisal

**Project:** Construction and Rehabilitation of State Houses and State Lodges  
**Project Code:** 1100 [Previous Project Code:08-050-001]  
**year:** 2017  
**vote:** [050]State Residences

**Status on submission:**

**Project Status:**

**Appraisal Decision:**

**Approved Budget Status:**

**Midyear Revised Status:**

Figure 23: Edit appraisal results of proposal

## 5.4 Project Progress

### 5.4.1 Project Quarterly Progress Report Status

As a reporting function, you can list all the status of Project Quarterly Progress Report selecting the year and vote. All the projects with project status “On-going” or “NEW” is retrieved according to your specified filter showing which quarterly period of the report is already submitted and which is yet pending.

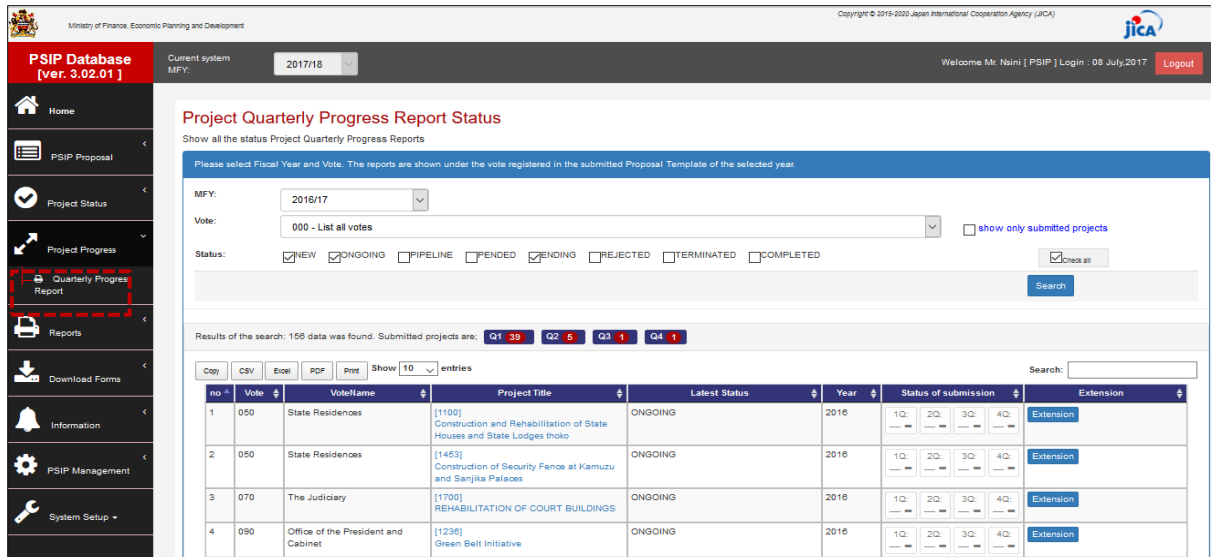


Figure 24: Quarterly Progress Report screen

**[note]** The MFY will be selected with the year of the project which Quarterly Progress Report corresponds to. For example, if MDA users submit the report for year 2016/17 project, select the year 2016/17 and the table shows all the 2016/17 projects that are supposed to submit report with project status New, Ongoing, Ending checked as a default.

If “show only submitted projects” checkbox is checked, only project who submitted Quarterly Progress Report will be listed.



Figure 25: Check button for submitted projects

The result of the search will be displayed after the search button is clicked with the specified conditions. The red number in the square represents the number of submitted reports each quarter.

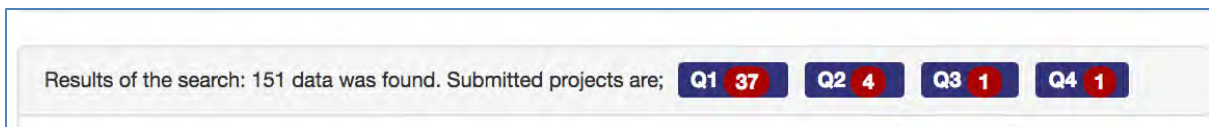



Figure 26: Results for all votes search

### 5.4.2 Report Detail

If the report is submitted, you can click the blue OK button  to see the detail of the report corresponding to the project. There are tabs such as Main, Project Performance, which information is exactly the same as Excel Project Quarterly Report. Please refer the Excel Manual for the detail information.

### 5.4.3 How does the system decide if the report is submitted or not

The system employs the following two conditions to see if the quarterly report is submitted.

- It checks if information on finance issues/ performance issues/ actions/ others is/are not empty.
- All above issues are empty but performance is not empty.

### 5.4.4 Extension Request

The submitted Extension Request information is available selecting "Extension Request" tab on the Quarterly Progress tab. The content is displayed with the same information as Excel Format.



Figure 27: Extension Tab

### 5.4.5 Completion Report

If the project is completed and the report is submitted by Excel format, the content is also displayed on the "Completion Report" tag.



Figure 28: Completion report tab

### 5.4.6 Feedback of Extension Request

On the Extension Request column, the "Requested" or "Show Result" button is displayed if the project has submitted the extension request.

The red "Requested" means that the project has submitted the request, while the green "Show Result" represents that the result is already done.

Latest Status	Status of submission				Extension Request
ONGOING	1Q: OK ✓	2Q: ---	3Q: ---	4Q: ---	Requested
ONGOING	1Q: ---	2Q: ---	3Q: OK ✓	4Q: ---	
ONGOING	1Q: ---	2Q: ---	3Q: OK ✓	4Q: ---	
ONGOING	1Q: ---	2Q: ---	3Q: OK ✓	4Q: ---	
ONGOING	1Q: OK ✓	2Q: ---	3Q: ---	4Q: ---	Show Result
ONGOING	1Q: OK ✓	2Q: OK ✓	3Q: ---	4Q: ---	
ONGOING	1Q: OK ✓	2Q: ---	3Q: ---	4Q: ---	
ONGOING	1Q: OK ✓	2Q: ---	3Q: ---	4Q: ---	Requested
ONGOING	1Q: OK ✓	2Q: ---	3Q: ---	4Q: ---	Requested

Figure 29: Quarterly report submission status and feedback screen

Clicking the button shows popup window where you can edit the detail of the request and approval/withdrawal.

Close
**Approve / Withdraw Extension Request**

---

**1706 - The Rehabilitation of Access Road at Staff Development Institute**

Vote: 093 - Department of Human Resources Management and Development

**Request contents**

<b>Approval Status</b>	Approved
<b>Project Period</b>	Original From Jul 2016 To Jun 2017
	Request From Jul 2017 To Jun 2018
	Approve From Jul 2017 To Jun 2018
<b>TEC</b>	Original 20,000,000
	Request 100,000,000
	Approve 100,000,000
<b>Reason for Request</b>	THE ESTIMATED COST FOR THE REHABILITAION OF THE ONE(1) KILOMETRE OF THIS ROAD WAS K217, 904,300 BUT ONLY K100,000,000 WAS APPROVED IN THE 2016/17 FINANACIAL YEAR. THE APPROVED AMOUNT WILL COVER SLIGHTLY LESS THAN HALF (0.5) KILOMETRES OF THE ONE (1) KILOMETERE OF THE ROAD THAT NEEDS REHABILITATION HENCE THE RFDUIEST OF EXTENSION
<b>Reason for the Decision</b>	

REJECT the Request
APPROVE the Request
WITHDRAW the Decision

Figure 30: Detail of the extension request

## 5.5 Reports

### 5.5.1 Project List

This function shows the project summary based on the TEC and Donor by specifying the responsible ministry and MDA.

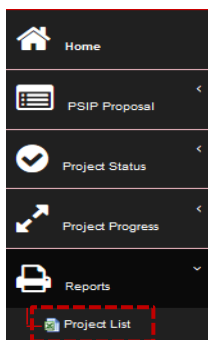


Figure 31: Reports sub-menu

Figure 32: Show project summary report

- To view by Vote, Select MFY, the vote then check on the TEC or donor then click show button. Once that is done then the table below is shown.

Projects for 2017/2018 by Vote <span style="float: right;">Go Back</span>									
[050 State Residences] <span style="float: right;">3 Projects</span>				Submission			Approved		
NO	Project Name	Project Period	Status	Part I	Part II	Total	Part I	Part II	Total
1	[1453] Construction of Security Fence at Kamuzu and Sanjika Palaces	Jul/2015 - Jun/2017	ONGOING	0	299,824,000	299,824,000	0	100,000,000	100,000,000
2	[1456] Rehabilitation of Roads and Drive Ways at State Residences	Jul/2015 - Jun/2018	ENDING	0	2,232,850,000	2,232,850,000	1,456	1,456	2,912
3	[1457] Replacement and Rehabilitation of Plants and Equipment at State Residences	Jul/2015 - Jun/2018	ONGOING	0	887,723,364	887,723,364	0	300,000,000	300,000,000
Sub Total				0	3,420,397,364	3,420,397,364	1,456	400,001,456	400,002,912

Figure 33: Project summary

**[note]**

When the MGDS Theme or Priority is selected by user, the grand total does not match as the whole project grand total, since there are projects which does not have the MGDS Theme or Priority

**[note]**

If you are using **Microsoft Office higher than Office 2010** versions, when downloading the report, you might have noticed the problem of protected mode which disable to display the contents. Whenever you try to open an Office document (Word, Excel or PowerPoint file) which was downloaded from Internet or was attached in an email, Microsoft Office program opens it in **Protected View** which is also known as **Read Mode** or **Restricted Mode**.

You can turn off Protected View feature, following simple steps:

1. First launch any Office program such as Microsoft Word and then click on File menu present in the ribbon.
2. Now click on Options tab present in the left sidebar.
3. It'll open Options window. Now click on "Trust Center" tab given at the end in left-side pane and then click on "Trust Center Settings" button.

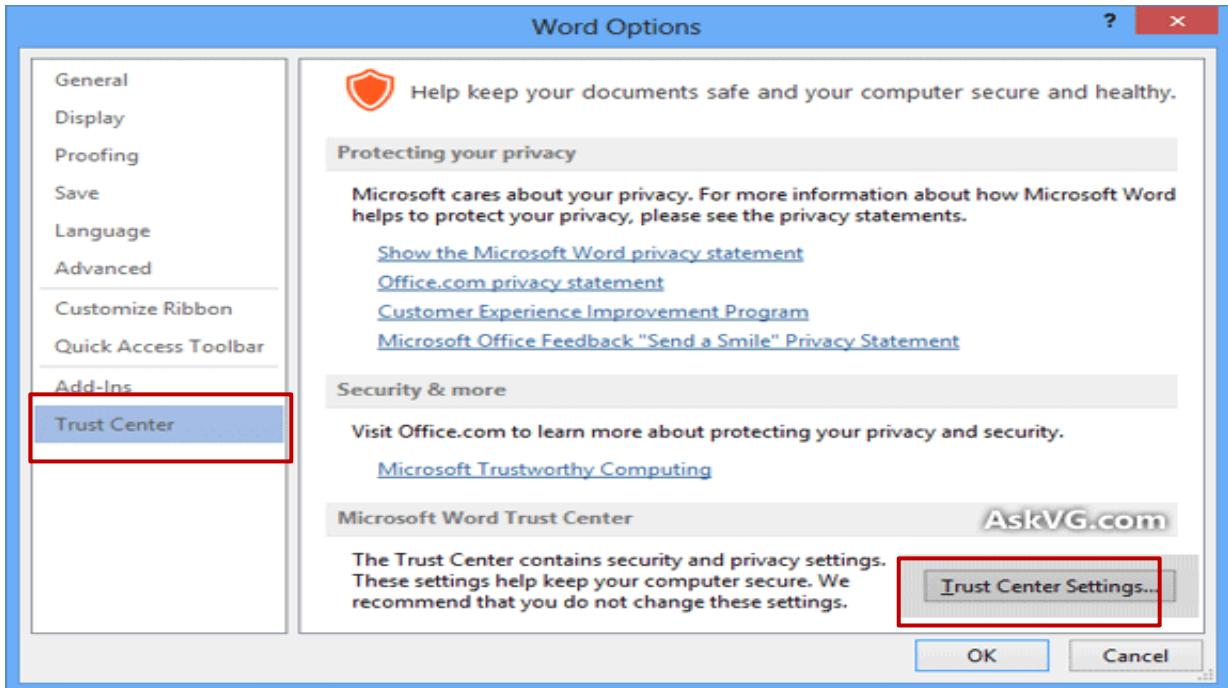


Figure 34: Protected view window

4. Click on "Protected View" tab and in right-side pane, you'll see following options:

Enable Protected View for files originating from the Internet

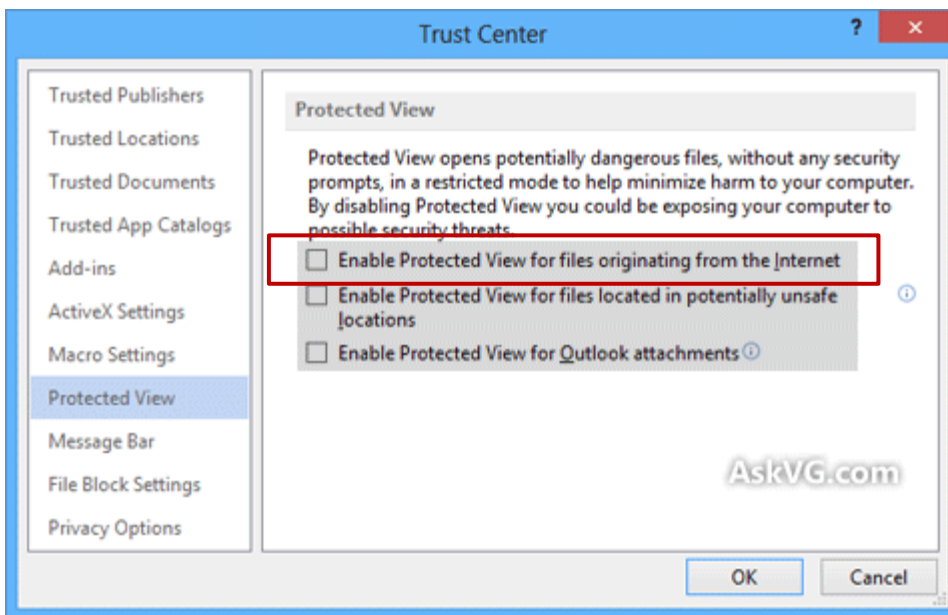


Figure 35: Trust center window



## 5.6 Download Forms

MDA/PSIP/Admin users can download Project Proposal for;

- New Project Proposal (Blank format)
- New Project Proposal (Pipeline project)
- On-going Project Proposal
- Quarterly Progress Report
- PFM-IT

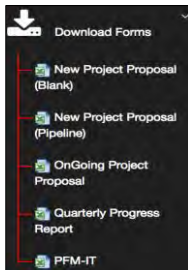


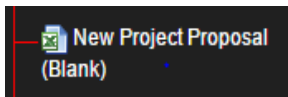
Figure 36: Download sub-menu

**[note]** The download menu is invisible for GUEST role users.

### 5.6.1 How to download the PSIP templates

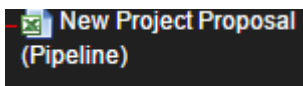
(1) New project proposal (Blank)

Once the sub menu of download new project proposal (Blank) is clicked then the save as window pops up and then the file can be saved.



(2) New project proposal (Pipeline)

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears and download can be done.



**Download Project Templates [New (Pipeline)]** [go back to menu](#)

Select vote to download project templates

Vote: 190 - Ministry of Agriculture, Irrigation and Water Development code:190

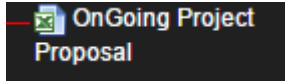
**download selected files** Click Template File name if you want to download only one file. If you want to download multiple files, check 'select/unselect all' check box and click 'download selected files' button.

NO	select/unselect	Template File name
1	<input type="checkbox"/>	1718_190_NEW_PROMOTION_OF_FRUIT_PRODUCTION.xlsm
2	<input type="checkbox"/>	1718_190_NEW_CONSTRUCTION_OF_MZIMBA_DAM_IMPLEMENTATION_PHASE.xlsm
3	<input type="checkbox"/>	1718_190_NEW_Proposal_for_Extension_of_Mangochi_Water_Supply_Sy.xlsm
4	<input type="checkbox"/>	1718_190_NEW_Promotion_of_sorghum_rice_and_legumes_foundation.xlsm
5	<input type="checkbox"/>	1718_190_NEW_Construction_of_Mzimba_Dam_Detailed_Designs_Rev1.xlsm

Figure 37: Show download function for pipeline project

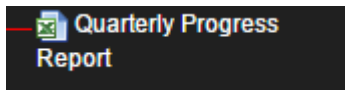
(3) Ongoing project proposal

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears and download can be done.



(4) Quarterly progress reports

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears and download can be done.



**Download Project Templates [QTRReport]** [go back to menu](#)

**Select vote to download project templates**

Vote:  code:275

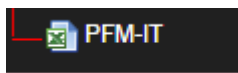
download selected files *Click Template File name if you want to download only one file.  
If you want to download multiple files, check 'select/unselect all' check box and click 'download selected files' button.*

NO	select/unselect all	Template File name
1	<input type="checkbox"/>	<a href="#">1617_275_QTREPORT_Improving_In-house_Printing_Capacity_of_Examinatio.xlsm</a>
2	<input type="checkbox"/>	<a href="#">1617_275_QTREPORT_CONSTRUCTION_OF_ADMINISTRATION_BLOCK.xlsm</a>
3	<input type="checkbox"/>	<a href="#">1617_275_QTREPORT_Construction_project_for_Lilongwe_University_of_Ag.xlsm</a>
4	<input type="checkbox"/>	<a href="#">1617_275_QTREPORT_Expansion_of_Chancellor_College_School_of_Economic.xlsm</a>

Figure 38: Screen after clicking the quarterly report button

(5) PFM-IT

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears and download can be done.



**Download Project Templates [PFM-IT]** [go back to menu](#)

**Select vote to download project templates**

Vote:  code:070

download selected files *Click Template File name if you want to download only one file.  
If you want to download multiple files, check 'select/unselect all' check box and click 'download selected files' button.*

NO	select/unselect all	Template File name
1	<input type="checkbox"/>	<a href="#">1617_070_PFM-IT_REHABILITATION_OF COURT BUILDINGS.xlsm</a>
2	<input type="checkbox"/>	<a href="#">1617_070_PFM-IT_CONSTRUCTION_OF JUDICIARY HEADQUARTERS.xlsm</a>
3	<input type="checkbox"/>	<a href="#">1617_070_PFM-IT_ESTABLISHMENT_OF JUDICIAL TRAINING INSTITUTE-JTI.xlsm</a>

Figure 39: Screen after clicking the PFM-IT button

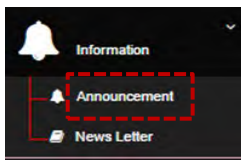
## 5.7 Information

This is an information function which shows the announcements made by PSIP and PSIP Newsletter.



### 5.7.1 Announcement

- 1). Click on the announcements to navigate to the announcements screen



- The announcements Page

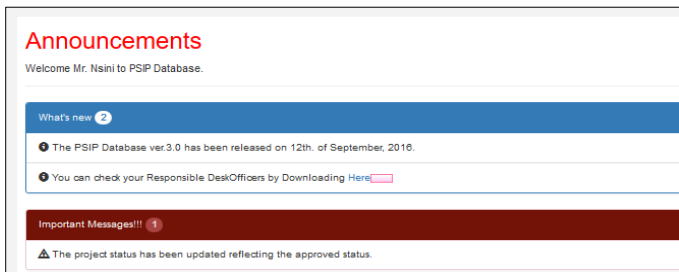
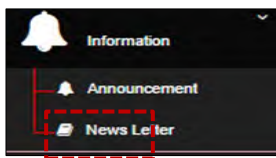


Figure 40: Announcement page

### 5.7.2 Newsletter



- The newsletter page



Figure 41: Newsletter Page

## 5.8 PSIP Management (PSIP/Admin Only)

### 5.8.1 Template Loader

This is a manual uploading function that loads a project on the PSIP Database.

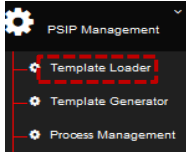


Figure 42: Upload function screen

- (1) Click on the choose file which explores you inside computer then select project file and click load the file. Then project navigates to another window

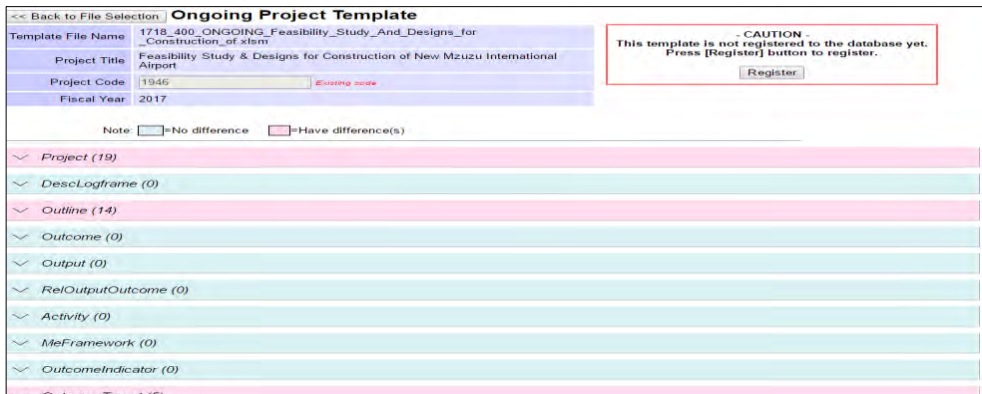


Figure 43: Project loading registration window

- (2) Click on Register

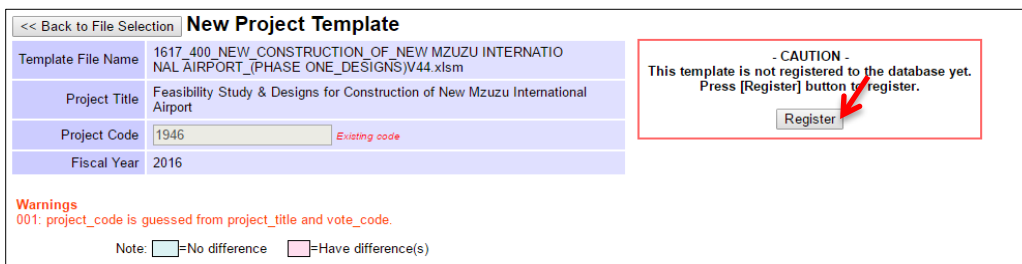


Figure 44: Registering button

- By clicking on the register button then the registered project is shown as below.

<< Back to File Selection

**Registration Result: 1946**

Registration successful.

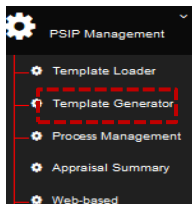
Registered projects (Vote: 400)

No.	Project Code	Project Title	Template Type
1	1001	Shire-Zambezi Waterway	Ongoing
2	1089	Acquisition of Airport Navigation Equipment	Ongoing
3	1090	Rehabilitation of Chileka Airport Terminal Building and Security Fence	Ongoing
4	1213	Automation of Airport Administration System	Ongoing
5	1214	Upgrading of Geodetic System	Ongoing
6	1217	Acquisition and Modernisation of Fire Fighting Equipment	Ongoing
7	1361	Rehabilitation of Railway System	Ongoing
8	1611	Installation of Aids to Navigation on Lake Malawi Programme	Ongoing
9	1612	Construction of Marine Training College buildings and procurement of Training equipment	Ongoing
10	1615	Rehabilitation of KIA Terminal Building	Ongoing
11	1617	Establishment of One Stop Border Posts (Chiponde and Mchinji)	Ongoing
12	1804	Construction of Likoma Jetty	Ongoing
13	1926	Expansion and Rehabilitation of office blocks for Buildings Department Offices	New
14	1928	Expansion and Rehabilitation of office blocks for Buildings Department Regional Offices	New
15	1946	Feasibility Study & Designs for Construction of New Mzuzu International Airport	Ongoing

Figure 45: Successfully registered project

### 5.8.2 Template Generator

This shows how to generate new and pre-filled Project Templates Proposals, Quarterly Progress Reports and PFM-IT Tools for use in the next fiscal year and for repairing.



<< Go to Menu

**Generate Project Forms**

Please select a Vote and Template Type. And then select project(s) and press [Download].

**Vote selection**  
 == Please select a vote ==

**Template Type**  
 New  Ongoing: As of FY [Latest]   
 Quarterly Report: For FY [2016]   
 PFM-IT: For FY [2016]

**Download**  
  Force zip

**Purpose of Generation**  
 Generate for Circular  Repair Excel Form

**Display option**  
 New  OnGoing  Pipeline  Pended  Ending  Terminated  Rejected  Undefined  
 FY2016/17 submitted projects Only

Select

PSIP Template Utility Ver. 3.01.38 Copyright © 2013-2017 Japan International Cooperation Agency (JICA)

Figure 46: Template generator

To download select the vote of choice, check on the purpose of generating the template, check the template type against the year from which you want to generate the template, check the status to be generated project. Then click on the Download.

### 5.8.3 Process Management

This is a PSIP process management function where PSIP Staff can input Site validation reports of projects, make project initial and final appraisal and can also input ministerial

minutes. It also shows the state of the proposal by showing number of errors, shows if Quarterly Progress Report was submitted, project proposal transition and budget transition.

The image shows a sidebar menu for 'PSIP Management' with options: Template Loader, Template Generator, Process Management (highlighted with a red dashed box), Appraisal Summary, and Web-based Submission. Below is the 'PSIP Process Management' screen for FY 2017/18. It features a table with columns for No., Project Title, Project Code, Approved Status in FY2016/17 (Budgeted), Quarterly Report FY2016/17 ((EX)-Extension request), Site Validation Log, Progress Remark, Attachments, Submitted Date, Uploaded Date, Errors in the Template, Show Template (Original), Latest Upload, Errors in the Template, and Show Template (Latest). The table is divided into three sections: 050 - State Residences [4], 070 - The Judiciary [3], and 080 - National Assembly [2].

Figure 47: PSIP process management screen

### 5.8.4 Quarterly Report

(1) Click on the Q1 icon, this will navigate to the quarterly report

The screenshot shows a blue header 'Quarterly Report FY2016/17 ((EX)-Extension request)'. Below the header are two buttons: 'Q1' (highlighted with a red arrow) and 'EX'.

The screenshot shows the 'Project Quarterly Progress Report Template' form. At the top, there are four tabs: '1\_Main', '2\_ProjectPerformance', '3\_Request for Extension' (highlighted with a red arrow), and '4\_Completion Report'. A red arrow points to the '3\_Request for Extension' tab with the text 'You can switch tabs to view'. Below the tabs is the form content for 'FY2016/17 Project Quarterly Progress Report form - MAIN PAGE -'. The form includes fields for: 1. Fiscal Year / Quarter (2016/17), 2. Project Code (1706), 3. Project Title (The Rehabilitation of Access Road at Staff Development Institute), 4. Vote Description (093 Department of Human Resources Management and Development), Responsible MDA (Department of Human Resources Management and Development), Implementing Agency (Division or Unit) (Staff Development Institute), and 5. PBB - Program.

Figure 48: Quarterly report view

(2) To View the Extension request form

An approval decision is made from the proposed extension request form from an MDA. One can reject the request, approve the decision or withdraw the approval decision by further clicking on the Approval Buttons.

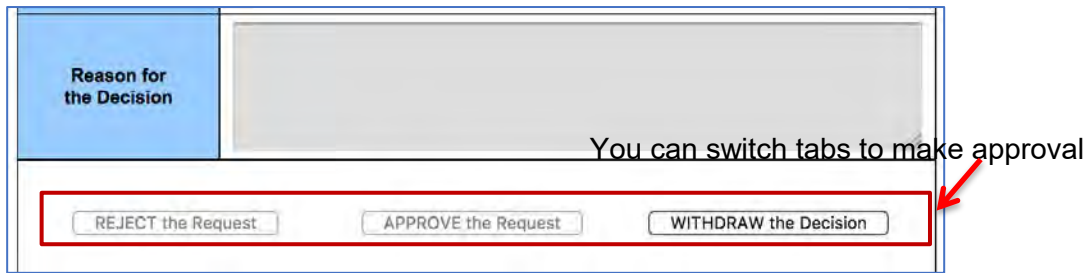


Figure 49: Extension approval decision screen

### 5.8.5 Site Validation Report

- (1) To create a field validation report, click on create in the site validation column against the project monitored and once the create button is clicked, a window pops up where the results of site validation are inputted.

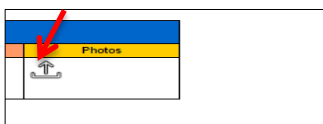


Figure 50: Data input screen for site validation log

- (2) After data input register by clicking on the “register button



- (3) To input Photos



- (4) Drop pictures in the drop files which then will appear in the uploaded.

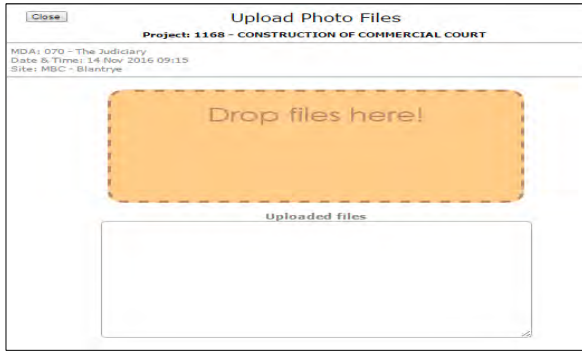


Figure 51: Site validation pictures upload function

(5) To view the input, click on Show button icon



(6) Upon a click the show button navigates to the registered data screen.

PSIP Site Validation Log

Project: 1474 - EXTENSION OF DWELLING UNITS AT MARINE UNIT

[Add a new record](#)

MDA: 100 - Ministry of Defence  
Implementing Agency: Policy and Planning

Edit / Delete	Visited Date	Site (Visited place)	Validation Team	Persons met	Progress	Challenges	Recommendations
	07 Mar 2017 08:00	Mangochi(Monkey bay)	David Chirong'one Afrike Nsim Giri Njiloma	major Mhone Lida Miendo	• Slow progress	<ul style="list-style-type: none"> <li>• Relocation of the occupants to completed houses is happening at a slow pace because only two houses are completed</li> <li>• Heavy rains which affected the construction works</li> <li>• Unavailability of Construction materials e.g. Timber which has become scarce and expensive</li> <li>• Funding inconsistencies</li> </ul>	Need for quick action because the houses are in uninhabitable state and the Contractor is geared to complete by August if resource flow is consistent.

Figure 52: Site log data

(7) To add new data to the Site validation log Screen, click on the add new record.

PSIP Site Validation Log

Project: 1474 - EXTENSION OF DWELLING UNITS AT MARINE UNIT

**[Add a new record](#)**

MDA: 100 - Ministry of Defence  
Implementing Agency: Policy and Planning

Edit / Delete	Visited Date	Site (Visited place)	Validation Team	Persons met	Progress	Challenges	Recommendations
	07 Mar 2017 08:00	Mangochi(Monkey bay)	David Chirong'one Afrike Nsim Giri Njiloma	major Mhone Lida Miendo	• Slow progress	<ul style="list-style-type: none"> <li>• Relocation of the occupants to completed houses is happening at a slow pace because only two houses are completed</li> <li>• Heavy rains which affected the construction works</li> <li>• Unavailability of Construction materials e.g. Timber which has become scarce and expensive</li> <li>• Funding inconsistencies</li> </ul>	Need for quick action because the houses are in uninhabitable state and the Contractor is geared to complete by August if resource flow is consistent.

Figure 53: Add new data button

### 5.8.6 Project Remark

(1) To create any updates on the project and remarks click on the “Create” in the column of project remark in the process management screen.



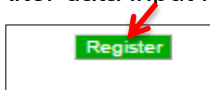
080 - National Assembly [2]						
No.	Project Title	Project Code	Approved Status in FY2016/17 (Budgeted)	Quarterly Report FY2016/17 (([EX]=Extension request)	Site Validation Log	Progress Remark
1	Construction of Parliament Building-Phase 2	1462	PIPELINE		create	Create
2	Modernization of Parliament for Effective Representation Project	1897	--		create	Create

Figure 54: Create button for progress remark

- The click button navigates to the data input screen

Figure 55: Input progress data screen

- After data input register by clicking on the “register button”.



### 5.8.7 Other relevant attachment

- To add attachments pertaining a project click on the attachment icon in the Process Management Screen.



- Upon a click to the attachment icon, the Database navigates to Uploading files window. Drop files in the drop files here which then will load automatically, then close the window.

Figure 56: Attachment data input screen

[To view registered data]

- (1) Click on the attachment show icon in the attachment column of the Process management screen. From which upon a click on the file link the file opens



- (2) Upon a click of the button it navigates to a new window bearing a dialogue box of registered data. Click on the file name to view the content.

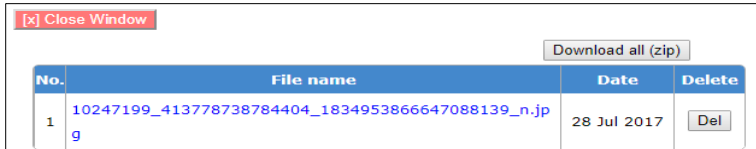


Figure 57: File attachment

- (3) To download all files, click on the download button in the registered data window. The files will download

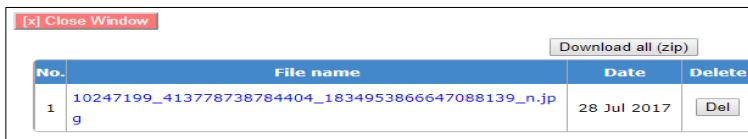


Figure 58: Download attachment button

- (4) To delete the file, click on the delete button in the same registered data window.

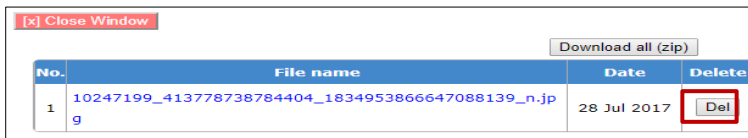


Figure 59: Delete button

### 5.8.8 Project Template Contents

- (1) To show template click on the "show" PSIP Database will navigate to the template

Request for PSIP FY2017/18 Submission Deadline: 31-Oct-2016				Latest Upload		
Submitted Date	Uploaded Date	Errors in the Template	Show Template (Original)	Uploaded Date	Errors in the Template	Show Template (Latest)
016-12-05 09:58:11	2016-12-05 09:59:04	0	show			show
016-12-05 09:58:17	2016-12-05 09:58:44	0	show	2017-03-20 10:22:31	0	show
016-12-05 09:58:07	2016-12-05 09:59:13	0	show			show
016-12-05 09:58:14	2016-12-05 09:58:54	0	show			show

Figure 60: Show project template

### 5.8.9 Initial Appraisal

- (1) To make initial appraisal click on the initial appraisal button, this will navigate to the Appraisal Matrix.

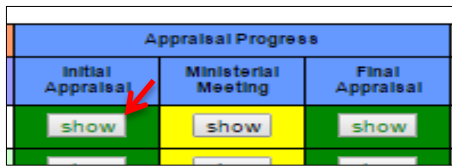


Figure 61: Show appraisal data

- (2) Initial Appraisal Screen pops up after clicking on the initial appraisal button as shown below.

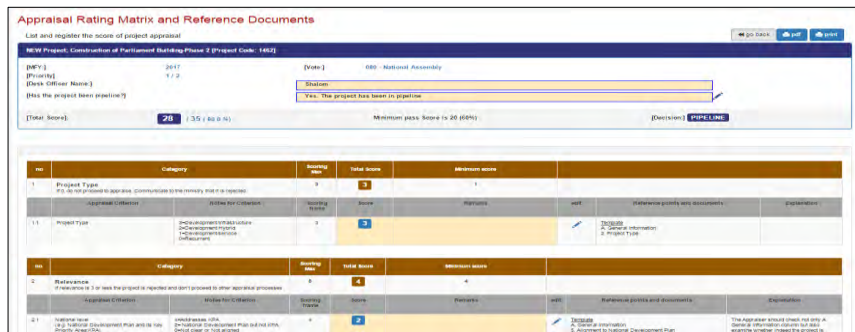


Figure 62: Appraisal rating matrix and reference documents

### 5.8.10 Final appraisal

This screen shows the final appraisal decision that is made by the desk officer; the desk-officer may score 1 or 0 according to the proposed requirement. This requirement is made complete by checking by summing up the individual scores from the initial appraisal.

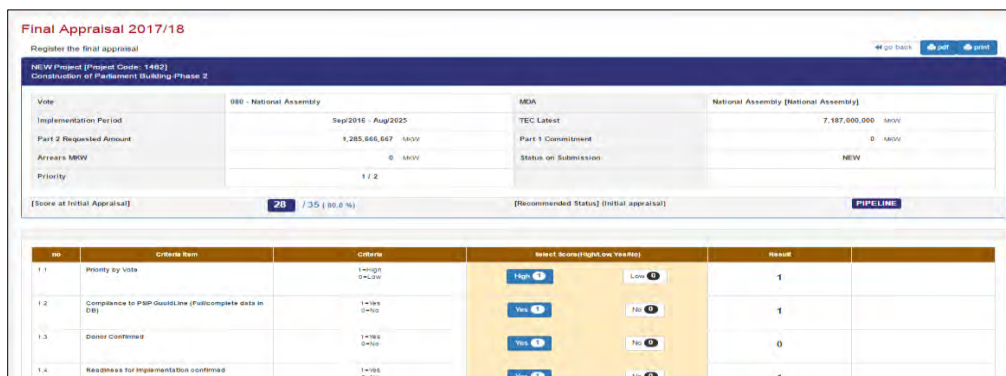


Figure 63: Final appraisal screen:

- (1) A score can be given to the requirement by clicking on the High button or low. High gives a score of one and 0 a score of Zero.



- (2) Critical information for a project can be typed in the dialogue box by clicking on the edit pen.

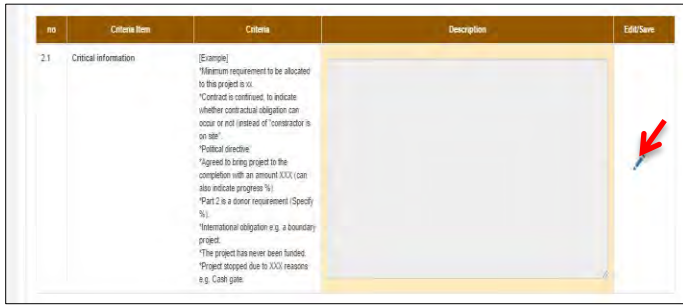


Figure 64: Edit function

- (3) Proposed allocations can be placed in the allocations box by clicking in the edit button, which makes the cells editable.



Figure 65: Allocations edit function

### 5.8.11 Ministerial Meeting Minutes

To input Ministerial Meetings minutes, click on the Show in the Ministerial meeting column, this then navigates to the data input screen.

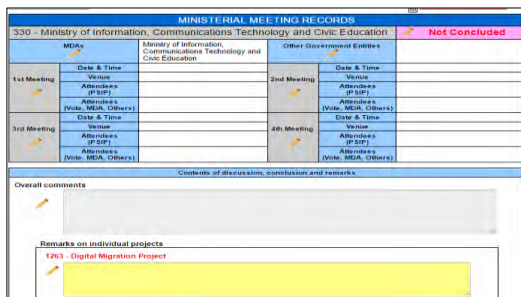


Figure 66: Ministerial minutes data input screen

### 5.8.12 Summary of Ministerial Minutes

Click on the View Ministerial Minutes Summary in the PSIP process management window.

The screenshot shows the PSIP Process Management interface. At the top, there are navigation buttons: '<< Go to Menu', 'View Process Summary Report', and 'View Ministerial Minutes Summary'. The 'View Ministerial Minutes Summary' button is highlighted with a red dashed box. Below the navigation, there are dropdown menus for 'FY 2017/18' and 'Vote -- All Votes --'. The main content area displays a table of projects under two categories: '050 - State Residences [4]' and '070 - The Judiciary [3]'. Each project row includes columns for No., Project Title, Project Code, Approved Status, Quarterly Report, Site Validation Log, Progress Remark, Attachments, Submitted Date, Uploaded Date, Errors in the Template, Show Template (Original), and Latest Upload (Uploaded Date, Errors in the Template, Show Template (Latest)).

Figure 67: View ministerial minutes button

The screenshot shows the Ministerial Meeting Summary window. It includes a header with 'Ministerial Meeting Summary', 'Fiscal Year FY 2017/18', and 'Vote -- All Votes --'. Below this, there is a 'Download' button and a table with columns: No., Vote, Date, Overall Comments, and Summary of Discussion by Project. The table contains two rows of meeting data. The first row (No. 1) is for '050 - State Residences' on 14/12/2016, with overall comments regarding MDA funding and progress reports, and a detailed summary of discussions for projects 1100, 1453, 1456, and 1457. The second row (No. 2) is for '070 - The Judiciary' on 14/12/2016, with comments on the agenda and a summary for project 1168.

### 5.8.13 Process Summary Report

Click on the View process summary report button in the PSIP process management window.

The screenshot shows the PSIP Process Management interface, similar to Figure 67. The 'View Process Summary Report' button is highlighted with a red dashed box. The main content area displays a table of projects under two categories: '050 - State Residences [4]' and '070 - The Judiciary [3]'. The table structure is identical to Figure 67, but the project data is different. Under '070 - The Judiciary', there are two projects: 'CONSTRUCTION OF COMMERCIAL COURT' (No. 1) and 'CONSTRUCTION OF JUDICIARY HEADQUARTERS' (No. 2). The 'CONSTRUCTION OF COMMERCIAL COURT' project shows 9 errors in the template, and 'CONSTRUCTION OF JUDICIARY HEADQUARTERS' shows 45 errors in the template. Both are marked as '<Required>' in the Latest Upload column.


PSIP Process Summary (by Vote)								
Fiscal Year FY <span>2017/18</span> 								
No.	Vote	Submitted	Uploaded	# of Projects	1st Appraisal	Ministerial Meeting Minutes	Site Validation Log	Final Appraisal
1	050 - State Residences	4	4	4	4	4	1	4
2	060 - National Audit Office							
3	070 - The Judiciary	3	3	3	3	1	1	3
4	080 - National Assembly	2	2	2	2	2		2
5	081 - Office of the Director of Public Officer's Declarations							
6	090 - Office of the President and Cabinet	2	2	1	1	1		1
7	093 - Department of Human Resources Management and Development	1	1	1	1	1		1
8	097 - Civil Service Commission	1	1	1	1	1		1
9	098 - Greenbelt Authority	1	1	1	1	1		1
10	099 - Office of the Director of Public Procurement (ODPP)							
11	100 - Ministry of Defence	7	7	7	1	6	2	6
12	101 - Malawi Defence Force							
13	120 - Ministry of Local Government and Rural Development	6	6	6	3	6	1	6

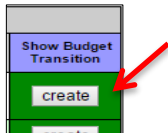
Figure 68: PSIP process Summary screen

### 5.8.14 Project Transition Screen

(1) To view the Project Transition screen

Project Status Transition			
On Submission	PSIP Recommended	On Budget Approval	Revised in the Mid Year
NEW	--	--	--
NEW	--	--	--

(2) To Create and edit transition budget data.



The create button will navigate to the project status and transition Screen.

Figure 69: Project status and budget transition screen

### 5.8.15 Copy Scenario for PSIP Allocation

- (1) Click on the copy on the Project Status and Budget Transition to input the proposed status allocation according to the agreed case ceiling allocation afterwards check on the case and click copy on screen.



Figure 70: Copy allocation button upon selecting a case

- (2) You can change the Vote or Project status to copy all the corresponding information from select case to Allocation Adjustment at once.

**[note]** When you copy the scenario case from A-D, you are working **in the temporal adjustment** and **it is NOT yet reflected as PSIP decision visible for MDA users** until you save the data in the next step.

### 5.8.16 Save scenario to Project table

- (1) To save the copied case of allocation as PSIP decision, click on save button on the Project Status and Budget Transition (2017/18) then click on save.

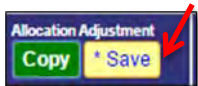


Figure 71: Save allocation adjustment case

After this save operation, the Allocation Adjustment information is reflected to “Project Status” menu and **the status will be visible for MDA users.**

In this page, you can change votes, or select all votes to save all status and budgets from one of four scenarios. It may take few minutes to save all allocation adjustment to the table.

### 5.8.17 Appraisal Summary Results

- (1) This shows the summary of appraisal results of a selected financial year’s submitted projects. It also aggregates requested amount for both Part 1 and Part 2.

No.	Vote	NEWWORKING (FY2017 Part 1 requested)	Project Title	Project Purpose	Crosses	FY2017 Part 1	FY2017 Part 2	Performance (in relation to Requested Amount)	Priority by Vote		Compliance to State Guidelines (State Category: G1/G2)	Ongoing	New	Readiness for Implementation (conditioned)	Priority Level	Critical Information	App. Sta.	
									H	L								
1	00 - State Residences	0000043 (0000043)	100 - Construction and Rehabilitation of State Houses and State Lodges	To improve the accommodation and work environment for the Head of State through rehabilitation of State Houses and Lodges.		0	400,000,000	Number of houses rehabilitated: 20 Number of houses and lodges constructed: 20	1	0	0	0				The project need more resources to ensure meaningful progress. The job to state will consist of real houses in the state residences.	1	
2	00 - State Residences	0000043 (0000043)	445 - Construction of Security Fence at Kamuzu and Empire Palace	To Construct and rehabilitate security Fence at Kamuzu and Empire Palace		0	388,824,000	1st of copies of designs produced 1st of construction approved 1st of fence constructed or rehabilitated								The project need to rehabilitate 2 km section of Kamuzu State House fence. The State House has the fence and has been earmarked for construction.	2	
3	00 - State Residences	0000043 (0000043)	446 - Rehabilitation of Roads and Drive Ways at State Residences	To improve accessibility of roads in State Houses and facilitate timely delivery of State House business through rehabilitation of roads and drive ways.		0	2,222,800,000	1st of roads rehabilitated: 15 km								The National Finance Service needs more resources to ensure meaningful progress. As the project need more financial resources to ensure meaningful progress the resources is 1500,000,000.	4	
4	00 - The Judiciary	0000044 (0000044)	100 - CONSTRUCTION OF COMMERCIAL COURTS	The objective is to provide access to commercial justice by increasing modern and purposeful		0	0	2 construction and Superstructure done. Court Building ready and handed over. Termite and Guard House	1	1	1	1						5

Figure 72: Appraisal summary screen

- (2) If you click on the Sigma it navigates you to appraisal statistics for appraised projects.



DATA	0004	0005	0006	0007	0008
0000043	30,792,217,400	0	2,742,000,000	41	1,200,000,000
0000044	48,122,822,822	0	1,824,000,000	20	1,300,000,000
0000045	12,811,819,527	23	1,824,000,000	0	500,000,000
0000046	440,000,000	0	540,000,000	0	440,000,000
0000047	0	0	0	0	0
0000048	0	0	0	0	0
0000049	0	0	0	0	0
0000050	0	0	0	0	0
Tot	127,155,840,000	23	8,946,000,000	10	6,440,000,000

DATA	0004	0005	0006	0007	0008
00 - State Residences	4	0	7,180,000,700	1,000,000,000	62,000,000
00 - The Judiciary	1	0	0	0	0
00 - National Assembly	2	0	2,000,000,000	1,000,000,000	0
00 - Office of the President and Cabinet	1	0	14,200,000	0	0
00 - Department of State Resources Management and Development	1	0	21,500,000	0	0
00 - Civil Service Commission	1	0	80,000,000	60,000,000	0
00 - Investment Authority	1	0	1,000,000,000	1,000,000,000	0
00 - Office of the Vice President	2	0	12,000,000	0	0
00 - Ministry of Education, Science and Technology	14	0	14,070,700	1,800,000,000	1,110,000,000
00 - Ministry of Royal Affairs and International Cooperation	2	0	60,000,000	0	0
00 - Ministry of Finance, Economic Planning and Development	1	0	0	0	0

Figure 73: Statistics screen

- (3) If you click on the download function the appraisal summary sheet gets downloaded in excel format.



- (4) If you click on the project title link, this will navigate to the proposal file.



The screenshot shows a web application window titled "Ongoing Project Template". It has several tabs: "General Info", "Project Outline", "Project Logframe", "Project Performance", "Annual Project Cost Matrix", "Monitoring/Evaluation", "Proposal\_for\_applied\_FY", and "Project Management Structure". The "General Info" tab is active, displaying a form with the following sections:

- 1 Project Code:** 1100, Previous Project Code: 00-050-001, Project Status: PENDING
- 2 Project title:** Construction and Rehabilitation of State Houses and State Lodges
- Project type:** Development/Infrastructure
- Readiness of Project:** A list of checkboxes including "Ready to start designing", "Feasibility study completed", "Land Acquisition is completed", "Hiring of contractors done", "Project is under implementation", "Others", "A design is available", "Detailed engineering design and costing is done", "Procurement Process has started", "Procurement has been done", and "Have agreements/ MOUs been signed".
- Project origin:** Presidential/Cabinet/Ministerial Directive
- 3 Alignment to MGDS:** MGDS: Yes, MGDS Theme: 150 Improved Governance, MGDS Priority: [ ] [ ]
- 4 Sector:** Sector: 016 Public Administration, Sector Policy (if applicable): No
- 5 Vote Description:** 050 State Residences

Figure 74: Project proposal file

### 5.8.18 Web-Based Submission

This is a web based loading function. It loads a Project Template Proposals and Quarterly Progress Reports to the PSIP Database. Open the source project proposal or Quarterly Progress Report folder and drag the Proposal or Report in the Auto in folder. The project then registers automatically.

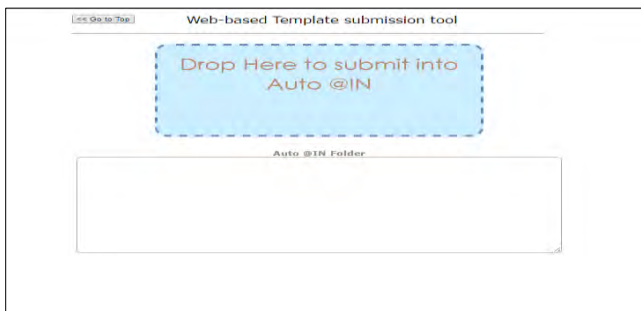
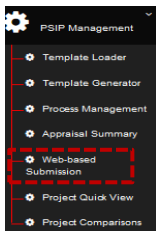
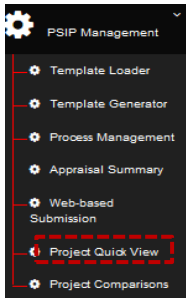


Figure 75: Web based data submission screen

### 5.8.19 Project Quick View

All projects status can be viewed for current year and proposed next fiscal year, you can also view if the Quarterly Progress Report has been submitted or not by selecting the year and vote. Projects can be viewed per vote by selecting on the vote list.



[Go to Menu](#)

### Project Quick View

Total Project count: 305    Quarterly Report count: 48    ( Note: ■ = Has Logframe )

Proposal FY     Quarterly Report FY     Vote

#### 050 - State Residences [4]

No.	Proposal FY2017/18	QT Report FY2016/17	Status FY2016/17	Applied Status FY2017/18	Project Code	Project Title
1	<span style="background-color: yellow;">Proposal</span>		ONGOING	ONGOING	1100	Construction and Rehabilitation of State Houses and State Lodges
2	<span style="background-color: yellow;">Proposal</span>		ONGOING	ONGOING	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces
3	<span style="background-color: yellow;">Proposal</span>		PENDED	ONGOING	1456	Rehabilitation of Roads and Drive Ways at State Residences
4	<span style="background-color: yellow;">Proposal</span>		PENDED	ONGOING	1457	Replacement and Rehabilitation of Plants and Equipment at State Residences

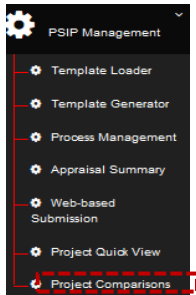
070 - The Judiciary [3]

Figure 76: Project Quick View

### 5.8.20 Project Comparison

A project can be compared in regard of the fiscal year, performance, period of implementation, etc.

- (1) To compare project, click on project comparison submenu



- (2) The click button for project comparison navigates to a new window
- (3) Select vote of choice and select project and fiscal years upon which comparison is made.

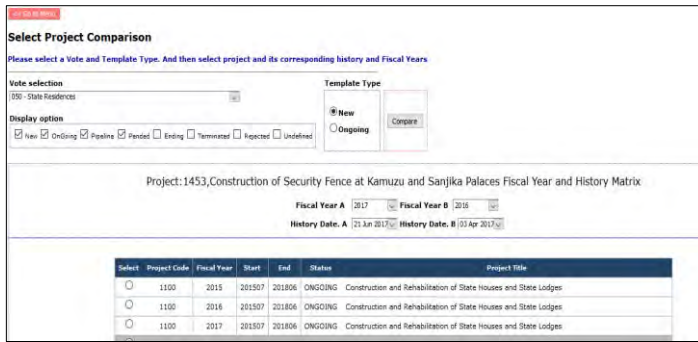
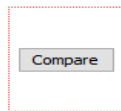


Figure 77: Project comparison screen

(4) Upon selecting the vote, the status and fiscal year click on compare.



(5) Upon the click on the compare button it navigates to a new window with a list of where the comparisons are made

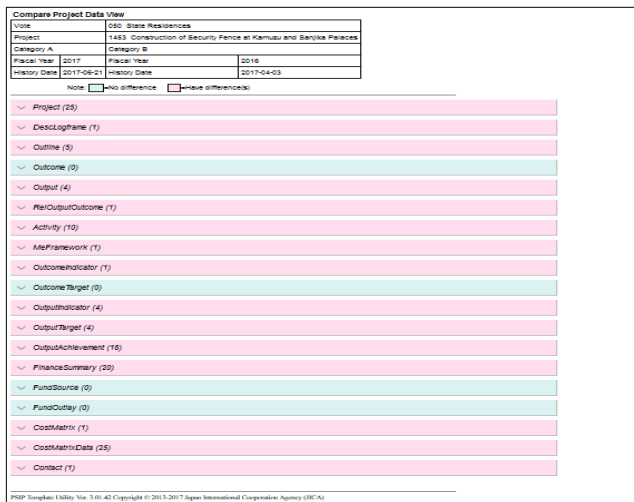


Figure 78: Project data view

(6) Click on any to check the comparisons. E.g. output comparison.

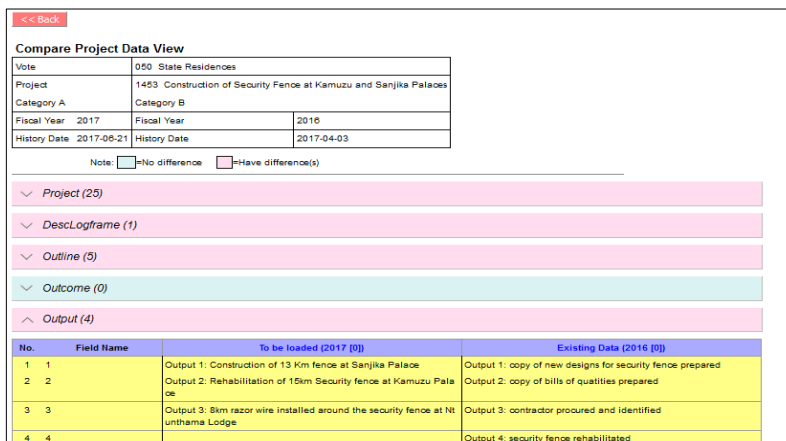
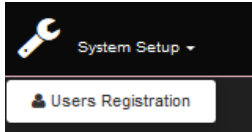


Figure 79: Project data view

## 6. System Setup

### 6.1 User Registration (PSIP/Admin Only)

To view the user registration, click on the “system set up” and click user registration. submenu.



- (1) This captures all registered users. PSIP staff can only view the user data, while Administrators can edit/delete data.

*Registered Users list*

Create a new entry

Copy CSV Excel PDF Print Show 100 entries Search:

No	Login ID	First name	Last name	Role	Vote code	Status	Gender	Position	Email1	Tel1	Cell1	Last login	Login count	Actions
1	132739	Edwin	Howahowa	ROLE_USER	330	Enable	M				0996409972			show
2	14MAY1975	Lazarus	Maunda	ROLE_USER	276	Enable			maundalaz@yahoo.com	01524500	0999318099			show
3	@annies3	IAN	CHADZA	ROLE_USER		Enable								show
4	Aaronkalua	Aaron	Kalua	ROLE_PSIP	270	Enable	M					2016-09-16 10:38:45	5	show
5	asaronzuze	Moses	Zuze	ROLE_USER	120	Enable			zuzeaaroon@yahoo.com		0888 431995			show
6	absalommwamlima	Absalom	Mwamlima	ROLE_USER	350	Enable	M	STATISTICIAN	rannexmwamlima@gmail.com	0212959360	0999151166	2016-09-22 09:22:10	6	show
7	achimango	julius	chimango	ROLE_USER	250	Enable	M	Works Officer	achimango72@yahoo.com.all	01536300	0999609759	2016-09-15	3	show

Showing 1 to 100 of 504 entries Previous 1 2 3 4 5 6 Next

Figure 80: Registered PSIP database users

- (2) If you click on the Login Id and Show button in the action Column, it navigates you to the form filled by the user.

*Registered Users list*

Create a new entry

Copy CSV Excel PDF Print Show 100 entries Search:

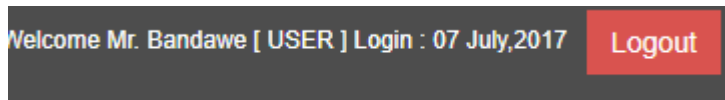
No	Login ID	First name	Last name	Role	Vote code	Status	Gender	Position	Email1	Tel1	Cell1	Last login	Login count	Actions
1	132739	Edwin	Howahowa	ROLE_USER	330	Enable	M				0996409972			show
2	14MAY1975	Lazarus	Maunda	ROLE_USER	276	Enable			maundalaz@yahoo.com	01524500	0999318099			show
3	@annies3	IAN	CHADZA	ROLE_USER		Enable								show
4	Aaronkalua	Aaron	Kalua	ROLE_PSIP	270	Enable	M					2016-09-16 10:38:45	5	show
5	asaronzuze	Moses	Zuze	ROLE_USER	120	Enable			zuzeaaroon@yahoo.com		0888 431995			show
6	absalommwamlima	Absalom	Mwamlima	ROLE_USER	350	Enable	M	STATISTICIAN	rannexmwamlima@gmail.com	0212959360	0999151166	2016-09-22 09:22:10	6	show
7	achimango	julius	chimango	ROLE_USER	250	Enable	M	Works Officer	achimango72@yahoo.com.all	01536300	0999609759	2016-09-15	3	show

Showing 1 to 100 of 504 entries Previous 1 2 3 4 5 6 Next

Figure 81: Registered users

## 6.2 Logout

A connection called a session is established each time a user login. To terminate that session the user must logout of the system.



## 7. User Privileges

### 7.1 User Roles and privileges

Some restrictions have been placed on the user accounts, which will vary according to the type of user group and the stage of the Public Sector Investment Programming (PSIP) cycle. The access permissions are as follows.

**Table 4: Roles and privileges**

User Group	Rolls and privileges	Targets
Guests	Guest user can view proposal submissions but cannot download nor view the submission status.	Registered users interested to see the PSIP information including donors
MDA Users	MDA users can view proposal data and download, but no right to edit documents.	MDA users registered to database
PSIP Unit	PSIP officers can edit all Ministries' information such as the project status or appraisal status	The PSIP Officers
Administrator	Administrators will be able to edit all data and manage accounts, database, etc.	IT Officials assigned to maintain the system and database.

### 7.2 User access authorization

The access control to the Menu and Pages are introduced as shown in the following table.

**Table 5: User access authorization**

Menu	Submenu	Guest/MDA users	PSIP Unit	Admin	Remark
PSIP Proposal	Submission Status	View except Guest	View	View	
	Project Details	View	View/Edit	View/Edit	

Menu	Submenu	Guest/MDA users	PSIP Unit	Admin	Remark
	Show Summary	View	View	View	Excel download allowed to all
Project Status	Status & Approved Budget	View	View/ update status	View/ update status	Display Approved budget and status
Project Performance	Quarterly Progress Report list	View	Edit Extension Request	Edit Extension Request	
	Quarterly Progress Report detail	View	View	View	
Reports	Project List	View	View	View	Excel download to all allowed
Download Forms	New/ Pipeline/ On-going/QT/ PFM-IT	Download except Guest	Download	Download	
Information	Announcement/ News Letter	View	View	View	
PSIP Tools	Loader/Generator/Process Management/Appraisal Summary/Web based Submission/Project Quick View	N/A (not shown)	Right to execute	Right to execute	
System Setup	Users (Users registration management)	N/A (not shown)	View	All rights to edit/delete	All user master Database Maintenance
	PSIP Admin Tool	N/A (not shown)	N/A (not shown)	All rights to edit/delete	All master Database Maintenance
	Template Generator(Batch )	N/A (not shown)	N/A (not shown)	Can generate	

## 8. Proposal submission and PSIP Process

### 8.1 Proposal Submission flow

Most information of the Proposal and Quarterly Report is “Read only” with a few editable areas in the proposal on the PSIP Database. The original Project Proposal and Quarterly Report are filled in Excel file which MDA users send to the PSIP unit by mail. The PSIP Unit is responsible for the registration of the sent information into the database. If MDA users need to modify the information, they change the contents of the Excel Template and send it again to the PSIP unit.

The following figure represents the proposal submission flow.

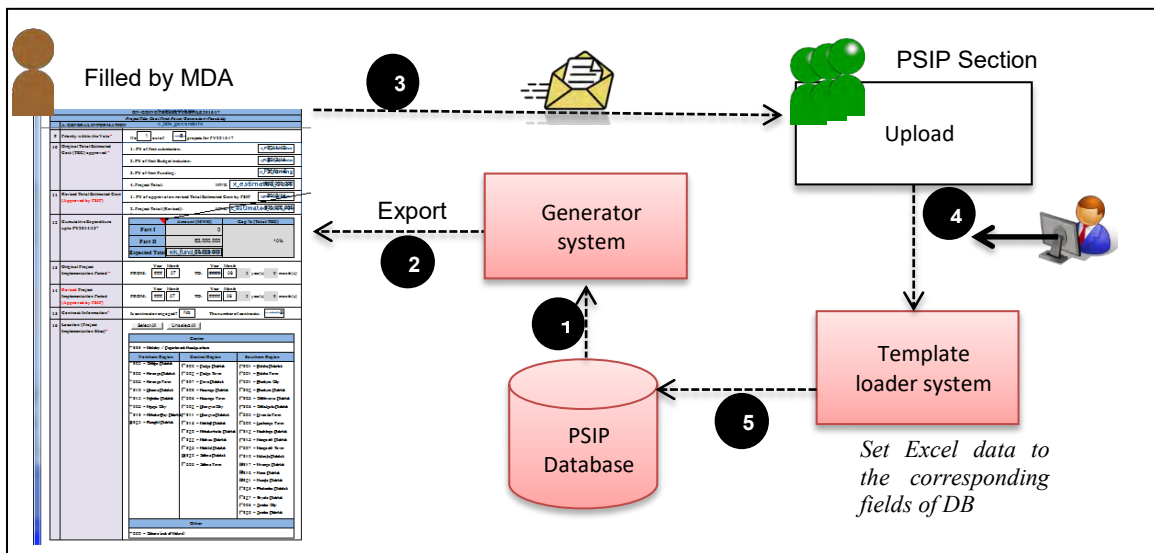


Figure 82: Proposal Submission flow

- 1) The proposal information already registered to the database is retrieved from the system (in case of On-going).
- 2) The retrieved data is exported to the corresponding fields of Excel Template (in case of On-going).
- 3) After MDA users fill in the information in Excel Template, they send it to PSIP Unit.
- 4) At PSIP Unit, the Excel Template is loaded to the system.
- 5) The system finally registers the proposal information to the PSIP Database.

### 8.2 During PSIP Process

As described above, MDA users can create information by Excel Template for New and On-going Projects after the announcement of Circular No1 and for a certain period until the project submission deadline. If a user needs to change project details of the already submitted project, it is required to contact the PSIP Unit and justify their reason for change. Changing

project life span will need authorization by way of Extension Request from MFEPD and hence data revision will be approved by MFEPD.

The MDA users will be given about one month to prepare their proposals. During this period, the PSIP Unit will give them technical assistance on how to fill in the template where necessary. To secure enough time for the proposal appraisal by the PSIP Unit, the proposals must be submitted on time.

## **9. Questions and Answers**

Below is a list of questions that a user might ask. If MDA users encounter any problem beyond their control, they will contact the PSIP Unit on **01 788 888 (Ext: 150/164) or [psipsubmissions@gmail.com](mailto:psipsubmissions@gmail.com)**.

### **9.1 System**

#### **Q1. I cannot connect to the Intranet Database**

**A:** Firstly, confirm that you are on the GWAN network with your Network Administrator. If you are on the GWAN network, check if your network cable is properly connected. If your cable is connected, check if there is a connection by looking for an icon of two computers at the bottom right corner of your screen (in Windows 7).

If you are connected and still cannot access the database, call the PSIP Unit to inform that the database is not connected.

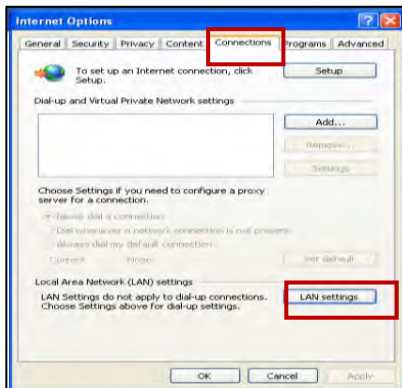


**Q2. My connection is slow (Only for GWAN Users)**

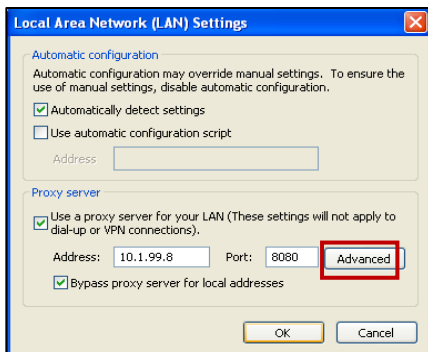
**A:** On the GWAN Network each command goes via the Proxy Server. This sometimes slows the speed with which the user accesses the database.

The users can bypass the GWAN Proxy server for the PSIP Database which allows them a direct connection to the database. This will also enable them to access to the database even when the Proxy Server is down. To bypass the Proxy you can configure the following settings (in case of Internet Explorer):

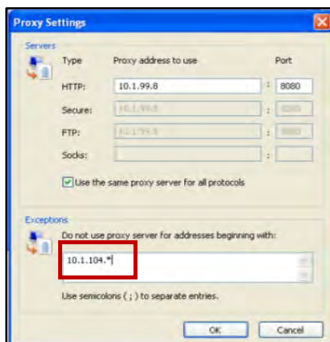
- 1) Go to Tools on the Internet Explorer menu bar.
- 2) On the Drop down list select Internet Options.
- 3) From the window click on Connections on the tabs at the top of the window
- 4) Click on LAN Settings on the window



- 5) For the GWAN connection, you may have already proxy setting with the proxy IP address.
- 6) Click on Advanced.



- 7) Type "10.1.99.\*" on the Exceptions box under "Do not use proxy for addresses beginning with:" which will allow you to bypass the proxy Server.

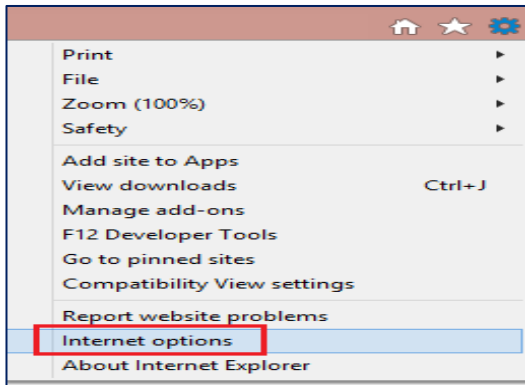


- 8) Click **OK** on the three pages to activate the settings.

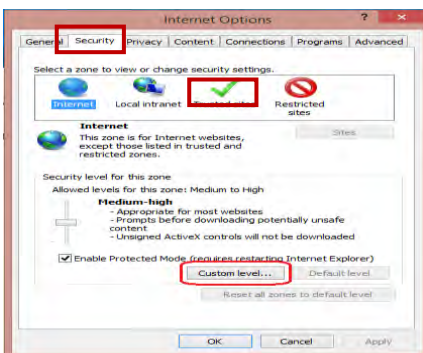
### Q3. How can I enable JavaScript in internet explorer

**A:** The system requires JavaScript enabled since in some pages the JavaScript function is applied. The following procedure explains how to enable JavaScript in Internet Explorer.

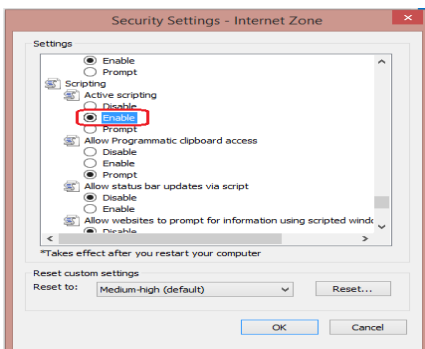
- 1) On the web browser menu, click Tools or the "Tools" icon (which looks like a gear), and select Internet Options.



- 2) When the "Internet Options" window opens, select the Security tab.
- 3) On the "Security" tab, make sure the Internet zone is selected, and then click on the "Custom level..." button



- 4) In the Security Settings – Internet Zone dialog box, click Enable for Active Scripting in the Scripting section.



- 5) When the "Warning!" window opens and asks, "Are you sure you want to change the settings for this zone?" select Yes.
- 6) Click OK at the bottom of the Internet Options window to close the dialog.
- 7) Click the Refresh button to refresh the page and run scripts.

## 10. Definitions and acronyms

Below is a list of definitions, acronyms and abbreviations that have been used in this document.

### 10.1 Definitions

**Table 6: Definitions and Acronym**

Word	Definition
MySQL	An open source database engine used to manage data in a relational database management system.
PHP	Is a scripting language used to write web applications.
User	A person who makes use of a system.
Database	Consists of an organized collection of data for one or more multiple uses.

### 10.2 Acronyms and abbreviations

**Table 7: Acronyms and abbreviation**

Acronyms and abbreviations	Definitions
Admin	Administrator of the system
CEPSIP	Capacity Enhancement in Public Sector Investment Programming
DAS	Development Assistance Strategy
GWAN	Government Wide Area Network
JICA	Japan International Cooperation Agency
MFEPD	Ministry of Finance, Economic Planning and Development
PSIP	Public Sector Investment Program
URL	Unified Resource Locater

## 11. Annexes

### 11.1 Annex1: Registration Form

PSIP Database User Account Registration Form	
If users need an account they are required to fill in the form bellow and hand it in to the PSIP Unit.	
Date:	
User ID: (Up to 20 characters)	
First Name:	
Last Name:	
Ministry:	
Position:	
Office Location:	
P.O Box:	
E-mail 1:	
E-mail 2:	
TEL 1:	
TEL 2:	
Fax:	
Cell 1:	
Cell 2:	
Signature	

#### Official Use only

Approved:	<input type="checkbox"/> Yes <input type="checkbox"/> No [Reason: _____ ]
Approved Date	
Initial Password:	
Approved By:	
Registered By:	
Signature:	



**Government of Malawi**

Public Sector Investment  
Programme  
(PSIP)

PSIP DATABASE (Ver.4)

USER MANUAL

**For Administrators**

The Ministry of Finance, Economic Planning and Development  
Department of Economic Planning and Development  
P. O. Box 30136  
Lilongwe 3, Malawi

**July 2017**

**Supported by**

**Project for Capacity Enhancement in Public Sector Investment Programming II  
(CEPSIP II)**

**Japan International Cooperation Agency**



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### Document History for PSIP Database (Ver.4)

Date	Revision	By	Remarks
20 May, 2016	2.0	Yuko Shiraishi	Initial version
31 Mar, 2017	3.0	Yuko Shiraishi	PSIP Database 3 new aspects included
17 Apr, 2017	3.04	Yuko Shiraishi	Layout adjusted
25 July 2017	4.00	Afiske Benjamin Nsini	PSIP Database Ver 4 new aspects included
25 July 2017	4.00	Thokozani Bandawe	PSIP Database Ver 4 new aspects included
25 July 2017	4.00.01	Gift Njoloma	PSIP Database Ver 4 new aspects checked
10 Aug 2017	4.00.02	Afiske Benjamin Nsini Thokozani Bandawe	New screenshot and functions included
17 Aug 2017	4.00.03	Ishikawa	Add new features of Submission status and Template Generation (Batch)

## **1. Introduction**

As part of the implementation of the Capacity Enhancement for Public Sector Investment Programming, a Public-Sector Investment Programming (PSIP) database was firstly developed in the CEPSIP-1 Project<sup>1</sup>. The database system is custom web-based software solution using PHP and MySQL database with a Web front-end. Being web-based, the system is accessible to all on the Government Wide Area Network (GWAN) and Internet users. Actually, the database serves as a platform for submitting project documents and handling other PSIP management processes.

The next phase of CEPSIP-2 project<sup>2</sup> started aiming at the improvement of Database and Manuals/Handbook for PSIP, further harmonization of the process of PSIP, and the capacity building to use improved Database and Manuals/Handbook for PSIP. As one of the activities to attain those purposes, the system was upgraded to Ver.1.1 to reflect the modification of proposal templates for fiscal year 2014/15, as well as the several environmental changes. The second edition covered those system modifications applied until March of 2014, where the submission of Word Proposal Template was employed.

The next version 1.5 was launched after the proposal templates for fiscal year 2015/16 was released. The design and system structure followed the ver.1.1, developing new mechanism of Excel Template Proposal for the submission together with other new functions.

The PSIP Database was upgraded to ver.2.0 released on December 2015, in line with the new proposal templates fiscal year 2016/17 where the additional new features to support appraisal decision procedures and quarterly report managements were introduced. This version applies the whole refactoring of the system (mainly database and program structure), to be able to get the better maintainability, scalability and flexibility, which means that the upgraded version enables to respond to the flexible and quick modifications according to the organizations or business requirements. The design of the screens on the Web has been completely renewed as well for the better user interface.

On September 2016, the version was upgraded to 3.0 after the Excel Proposal Template ver.3.0 was released. In new version, the information that had been managed until then individually or somewhere in local storage was integrated into the centralized database. This centralized management of information dynamically improved the PSIP staff's

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<sup>1</sup> CEPSIP 1; Capacity Enhancement in Public Sector Investment Programming Phase I (from July 2009 to July 2011)

<sup>2</sup> CEPSIP 2; Capacity Enhancement in Public Sector Investment Programming Phase II (from March 2013 to September 2017)

business process by hand to systematic one. With this version, the submitted proposal by MDA user is appraised on the Web to make quick decision, what was discussed in the ministerial meeting is all recorded in the database effectively to support the appraisal and the ability to make budgetary transitions. Further, as an MDA user support, the extension request submitted by MDA user or feedback of the appraisal is visible on the Web.

In the 2018/19 fiscal year, the database will now start using the new version 4.0, released on August 2017. This latest version focuses on providing better feedback to the MDA users with the valuable information such as the result of the requested project extension. The submitted reports by MDA users such as Project Extension Request or Completion Report is displayed as well on the Web page with the same Excel format. Regarding the budget, the requested amount and approved budget can be traced on the Status & Budget screen for your reference. On the other hand, the powerful management tool has been provided for PSIP Unit where all the process of each project can be managed and controlled from its submission until approval of the budget.

## **2. What is PSIP Database**

### **2.1 Overview of PSIP Database**

The overall objective of the PSIP is to facilitate efficient utilization of Malawi's human, natural, physical and social resources to improve the country's economic prospects and further development of public services. This objective is attained through a careful and thoughtful process of planning and management of development projects across the sectors.

To achieve this objective, PSIP provides a mechanism that screens and confirms public investments projects to ensure that they are in line with the priority areas of the MGDS and that the implementation of such projects is done in the most cost effective and efficient manner. The PSIP Database tool was developed to contribute to the PSIP Unit and stake holders to achieve this goal.

All MDA users are required to submit their proposed development projects to the PSIP Unit under Development Planning Division of the Ministry of Finance Economic Planning and Development (MFEPD) during the budget preparation process. The PSIP unit validates these project proposals. After the deadline of PSIP proposal submission, a series of a ministerial meeting is convened where Ministries present their project proposals. The proposals are screened by MFEPD; this process involves discussions with line ministries so that programs/projects that do not conform to ministerial, sectoral, or national goals and objectives are not accepted for inclusion in the PSIP. The project proposals are analyzed

and then are judged to be approved, rejected or referred back to line Ministries for further refinement.

The database system allows MDA users to submit their proposals electronically through an Excel Template file which data is later stored systematically to the Database by PSIP Unit staff. The submitted proposal is expected to permit MDA users to search and list all the projects that are presented to the PSIP Unit and even view details pertaining to projects that are implemented, ended, rejected, pipelined or terminated including the information in the past. The Monitoring and Evaluation Unit will easily link and correspond with the Development Planning Division since they can all access and refer to the same database. This will minimize problems that may arise due to lack of adequate information when monitoring and evaluating projects by the Malawi Government. Furthermore, this process will not only reduce the time it takes to submit, approve and monitor projects, but also decrease a lot of redundancies and human errors that were found in the previous manual system.

## 2.2 The roles of MDA

The planning section of each ministry plays a leading role in PSIP formulation at the line ministry level. By following the PSIP guidance, the planning section facilitates the compilation of data through the pre-designed template on the PSIP database, consolidates and submits the proposals to MFEPD. Then the MFEPD and the planning section of each line ministry have meetings to decide the project list to be included in the PSIP while considering the allocation amount of the development budget to each project within a given ceiling figure. The compiled data from line ministries is then submitted to MFEPD.

## 3. System Requirements

The following table shows supported versions and conditions of the system.

**Table 1: System Requirements**

System		version	Remarks
Excel	Proposal Template	ver. 4.0 or higher version	
Operating System		Windows 7 or later version	
PSIP Database Web		ver. 4.0 or higher version	
Proposal Loader system		ver. 4.0 or higher version	
Proposal	Generator system	ver. 4.0 or higher version	

System	version	Remarks
Browser	<ul style="list-style-type: none"> <li>• Internet Explorer 10 or later</li> <li>• FireFox higher than ver.45</li> <li>• Chrome higher than 49</li> </ul>	<ul style="list-style-type: none"> <li>- JavaScript must be enabled.</li> <li>- Pop up windows should be enabled.</li> </ul>

This document assumes that the computer system has connection to the GWAN network or has direct internet connection to use PSIP Database application.

### 3.1 Intended Audience

This document is intended for those who have IT administrator role in the database.

## 4. Access to the System

You can access to the system by the following URL address.

**Table 2: Access to the system**

URL address	Type of connection	Who can connect	Observations
1	<ul style="list-style-type: none"> <li>- Internet</li> <li>- GWAN</li> <li>- intranet connection</li> </ul>	<ul style="list-style-type: none"> <li>- who has Internet connection</li> <li>- who connects to the GWAN network with Intranet connection</li> <li>- who connects to the JICA network at PSIP office</li> </ul>	<p>If your network is GWAN or JICA Wi-Fi connected, the connection will be made by Intranet.</p> <p>If you are out of GWAN having your own Internet connection from outside (such as Airtel Malawi), the connection will be by Internet.</p>

### 4.1 How to access to the PSIP Home Page

Enter the above URL address to your browser either by Internet or Intranet connection according to your environment.

- 1) Open your browser (Internet Explorer, Firefox or Chrome)
- 2) In the address bar of the browser, type in;



<http://psip.malawi.gov.mw>

This will be immediately redirected to the secure page “https://psip.malawi.gov.mw” as seen in the Figure below.

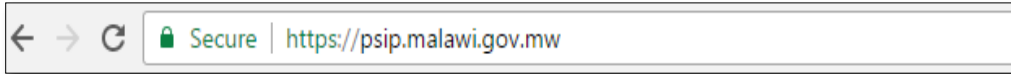


Figure 1: Address bar

**[Note]** The difference is that what you enter is normal http protocol. The system immediately redirects to “https” secure protocol where all the information is encrypted.

3) This address takes you to the PSIP home page as seen below.

**Malawi PSIP Portal**  
Ministry of Finance, Economic Planning and Development

Welcome to Malawi PSIP Portal.

**General Information**

- PSIP Database 4.0 is now available! Click [\\*HERE\\*](#) to login.
- 2018/19 PSIP Circular is available! Click [\\*HERE\\*](#) to download.
- 2018-19 PSIP Guideline & Attachments.pdf under 2018/19 PSIP Circular contains 'Template', 'Progress Report Format' and 'PFM-IT Format' as attached. To submit required templates or formats, first please [login to PSIP Database](#), go to 'Download Forms' from the left menu and select the forms you want to download.
- To obtain an user account, please download and fill in the [user registration form](#) and hand it in to the PSIP Section or Email it to [psipprojects@gmail.com](mailto:psipprojects@gmail.com).
- If you have any question or concern, or you do not remember Login ID or password, please feel free to contact PSIP Section on 01-788-888 (Ext: 150/164) / 01-788-278(Direct) or [psipsubmissions@gmail.com](mailto:psipsubmissions@gmail.com).
- Contact the Deskofficers : |[Loyce Fatch MDA's](#)|[Dan Gareta MDA's](#)|[Daudi Chinong'one MDA's](#)|[Shalom Ghambi MDA's](#)|[Chikondi Phiri MDA's](#)|[...](#)

**Actual status of Proposal Template submission by votes**

Submitted/Uploaded: Indicates the number of proposal templates submitted to PSIP section and uploaded to PSIP Database

NO	Vote	Vote Code	Submitted/Uploaded
1	050	State Residences	0
2	060	National Audit Office	0
3	070	The Judiciary	0
4	080	National Assembly	0
5	081	Office of the Director of Public Officer's Declarations	0
6	090	Office of the President and Cabinet	0
7	093	Department of Human Resources Management and Development	0

Figure 2: PSIP Home Page

This page has a menu on the left pane which will allow users to navigate easily from one page to the other. The home page is available for all users; in fact, no authentication is required to be able to obtain useful public information such as several manuals, reports and handbooks.

On the main page, the general information also shows some messages to the visitors. Below the general information, actual status of current Fiscal Year Proposal Template submission by votes can be viewed by all visitors. This represents the number of projects proposals sent by each vote.

## 4.2 How to access to the PSIP Database

To use the PSIP Database system, you are supposed to be authenticated in the database as a user having Login ID and password registered beforehand.

- 1) To enter the database, click on 'Login to PSIP Database' from the left menu.

The screenshot shows the Malawi PSIP Portal homepage. The left-hand navigation menu has a red box around the 'Login to PSIP Database' link. The main content area features a 'General Information' section with several announcements, a table titled 'Actual status of Proposal Template submission by votes', and a table with columns 'NO', 'Vote', 'Vote Code', and 'Submitted/Uploaded'.

NO	Vote	Vote Code	Submitted/Uploaded
1	050	State Residences	0
2	060	National Audit Office	0
3	070	The Judiciary	0
4	080	National Assembly	0
5	081	Office of the Director of Public Officer's Declarations	0
6	090	Office of the President and Cabinet	0
7	093	Department of Human Resources Management and Development	0
8	097	Civil Service Commission	0
9	098	Greenbelt Authority	0

Figure 3: How to access to the PSIP Database

- 2) A page will pop up requesting them to enter a password and username.

The screenshot shows the PSIP Database System login screen. The page title is 'PSIP Database System' and the subtitle is 'Government of Malawi, Ministry of Finance, Economic Planning and Development'. The login form has fields for 'Login ID:' and 'Password:', a 'login' button, and a 'Supported by Japan International Co-operation Agency (JICA)' logo at the bottom.

Figure 4: PSIP Database Login Screen

All users of the system are required to input Login ID and Password. When a user logs in, a connection called a session will be created. The session will be expired and require the user to log in again, if the user stays idle, that means, if the user does not click the submit button nor react for certain session maximum time.

**[Note]** Be careful that Login ID and Password are case sensitive, i.e. "User" and "user" are not the same.

If the login authentication is successful, it takes you to the top page of announcement of PSIP Database.

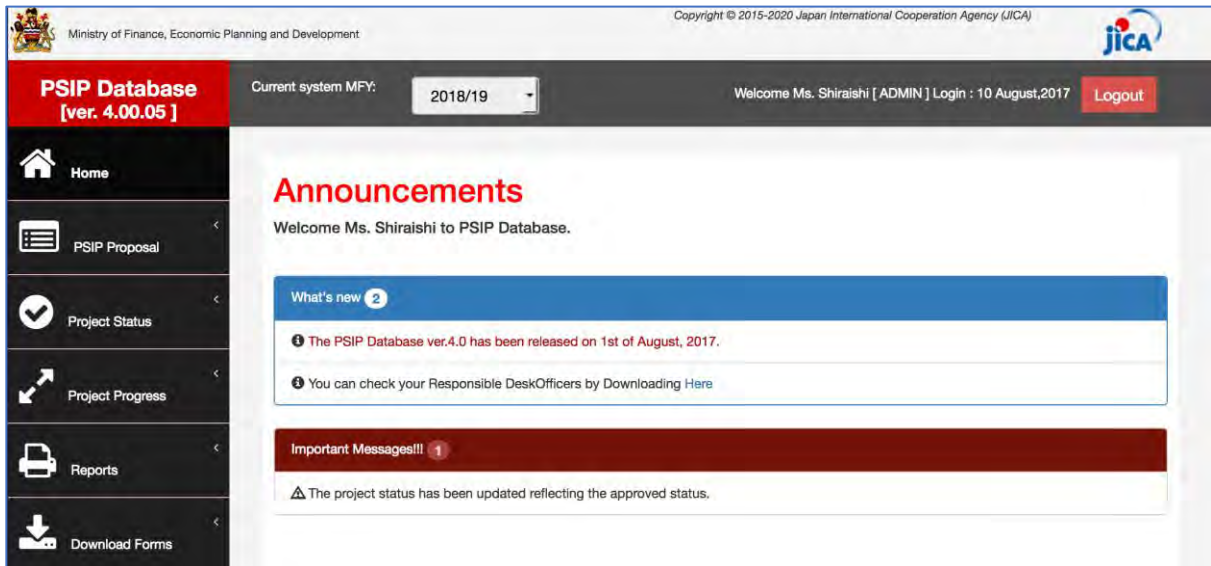


Figure 5: Announcements screen

### 4.3 How to obtain Login ID

A user is required to submit a User Registration form in Annex 1 to the PSIP Unit to obtain the Login ID. This form can be downloaded from the PSIP portal top page. After you fill in your profile and password, send it to the PSIP Unit who will register your account to the Database and provide you the temporary password. The first time your login, you are required to enter this temporary password and change it to new password.

## 5. PSIP Database features and functions

Let's see the main functions displayed on the menu of the left pain of the window. The menu has the submenus shown when you click the item.

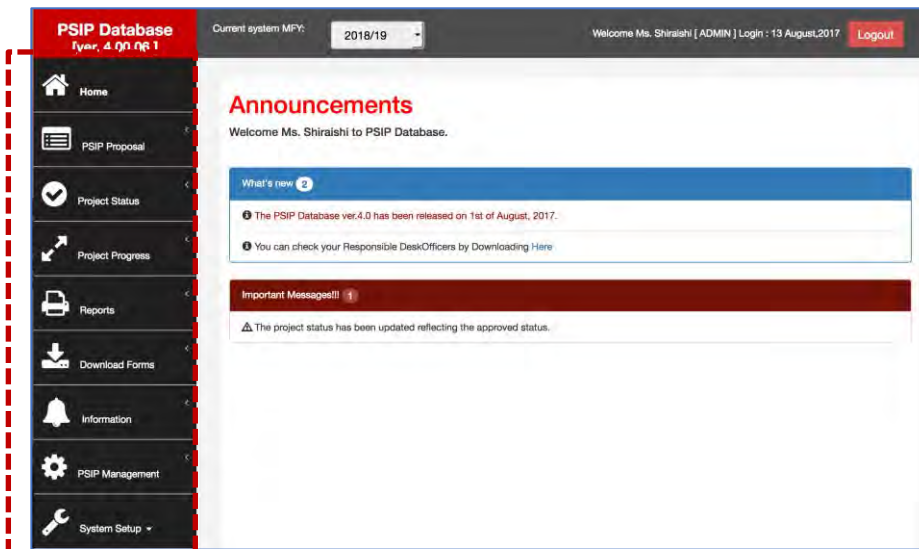


Figure 6: Database Menu

## 5.1 Home/Announcements

After your successful login to the system, the Announcement page of PSIP Database is on top. It displays the latest news and useful information regarding the PSIP activities and the system. It may sometimes display warning messages individually to your Ministry. It is therefore recommendable for the user to every time check the announcements before using the system. The page also displays a feature of Desk Officers where you can download and see your PSIP desk officer.

### 5.1.1 View names of PSIP Desk-officers and their responsible MDA Portfolio

To view the names of PSIP Desk-officers and their MDA portfolio, click on the pop up in the announcements screen, which will navigate to matrix window of desk officers.

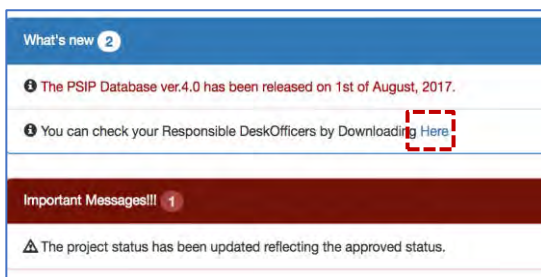


Figure 7: Announcements Screen

## 5.2 PSIP Proposal

PSIP Proposal menu contains the information regarding proposals, such as Project Proposal details, Summary of the submitted projects and Submission status of the proposals by MDAs.

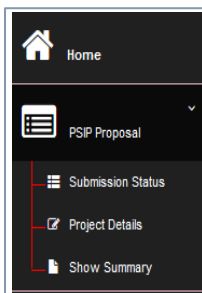


Figure 8: PSIP Proposal submenu

### 5.2.1 Submission Status

All the projects are shown in the Submission Status list presenting the submission and uploaded status.



Figure 9: Submission Status screen

The number “1” on the corresponding column means that it is registered successfully on each status. The following are the two status of the submission:

Table 3: Status of the submission

Submission Status	Meaning	Remarks
Submitted	The proposal is submitted by the vote.	
Loaded	The proposal is uploaded to the database by the PSIP unit.	

This list can be used for confirmation if proposal is in the PSIP database.

**[Note]** This screen is visible for MDA users, but not available for GUEST users.

There is a button at the right upper corner named “Show submission log”. This is to see the detail result of submission and uploading. The screen sample is as below.

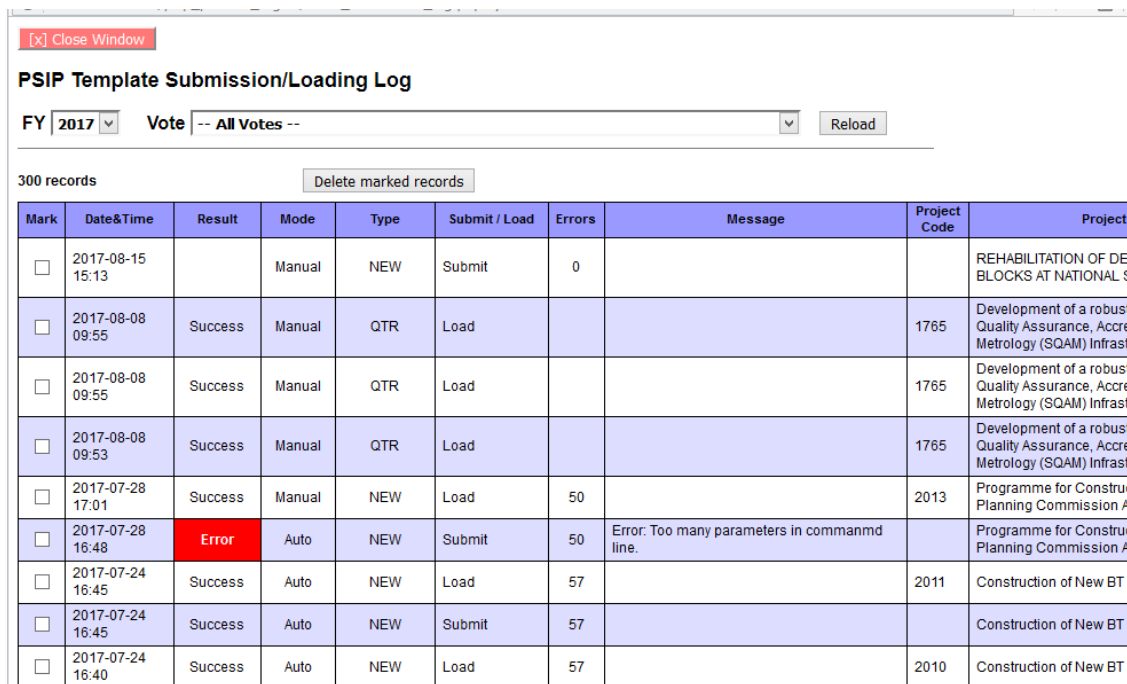


Figure 10: Submission Log screen

## 5.2.2 Project Details

Project details will list you the submitted project proposals, by selecting FY, Vote in a drop-down list or project status.

1) Select the conditions to list the projects

**MFY**; select the FY you are interested in. You can select not only corresponding year, but past proposals are also available.

**Vote**; choose the vote which project you want to filter.

**Status**; check/uncheck the project status to filter the projects.

2) Press the Search button and the corresponding projects are shown according to your conditions with the number of rows. The project status is also displayed in the list.

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries Search:

No	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/08	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/08	ONGOING
3	State Residences	1456	Rehabilitation of Roads and Drive Ways at State Residences	2015/07 ~ 2018/08	ONGOING
4	State Residences	1457	Replacement and Rehabilitation of Plants and Equipment at State Residences	2015/07 ~ 2018/08	ONGOING
5	The Judiciary	1188	CONSTRUCTION OF COMMERCIAL COURT	2012/07 ~ 2018/12	ONGOING
6	The Judiciary	1189	CONSTRUCTION OF JUDICIARY HEADQUARTERS	2017/08 ~ 2021/07	NEW
7	The Judiciary	1700	REHABILITATION OF COURT BUILDINGS	2017/07 ~ 2020/08	ONGOING
8	National Assembly	1482	Construction of Parliament Building-Phase 2	2016/09 ~ 2025/08	NEW
9	National Assembly	1897	Modernization of Parliament for Effective Representation Project	2017/07 ~ 2022/08	NEW
10	Office of the President and Cabinet	1929	Project for the Enhancement of Capacity in Public Policy Formulation, Analysis, Monitoring and Evaluation	2017/07 ~ 2019/10	NEW

Figure 11: Project Proposal List

**[Note]** As a default, all the status is selected. If you want to unselect all, uncheck the “Check all” checkbox. If no status is selected, anyway all the projects of any status will be shown including the projects without status.

Status:  New  Ongoing  Pipeline  Pended  Ending  Rejected  Terminated  Completed  Check all

**[Note]** Project Status for "coming FY" indicates requested status by MDAs (before approval), while those for other FYs indicate approved ones.

3) Other useful functions

- Search by keyword

After you list all the projects, if you want to filter more in detail with some keywords, enter the word into the “Search” textbox, and only the projects that hit with the corresponding keyword will be listed on the table.

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries Search:

No ^	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 12 : Search by keyword

- Sort on the title of the table

You can sort the list table clicking the title (No, PSIP Code, Title, Type, etc.).

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries Search:

No ^	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 13: Sort function

- Print function

By clicking the printing function button, you can print the filtered table to print image, PDF, CSV (Excel) or “Copy and Paste” to where you want.

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries Search:

No ^	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 14: Print function

- Show entries function

By selecting the Show entries button, you can specify the number of projects appearing on screen e.g. 50,100,200 or all

Results of the search: 305 data was found

Copy CSV Excel PDF Print Show 10 entries Search:

No ^	Vote Name	Project Code	Project Title	Project Period	Status
1	State Residences	1100	Construction and Rehabilitation of State Houses and State Lodges	2015/07 ~ 2018/06	ONGOING
2	State Residences	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces	2015/07 ~ 2017/06	ONGOING

Figure 15: Show entries function

### 5.2.3 Project Detail Information

By selecting the Project Code on the list, it takes you to the project detail information page. Project Detail Information is grouped into several tabs. Clicking on the tabs will open a corresponding page according to the project status. New Project Registration has tabs namely General Info / Outline / Total Project Cost Matrix / Annual Project Cost Matrix / Financing/ Monitoring Evaluation/Proposal Applied FY/Project Management Structure, while On-going project has tabs; General Info / Outline/Project Performance / Annual Project Cost Matrix / Monitoring Evaluation / Proposal Applied FY/ Project Management Structure.

Basically, the contents displayed in the Project Details are the same as Excel Template format. On the top of the page the title, the status and selected year are always visible.

ONGOING Project: Construction and Rehabilitation of State Houses and State Lodges [1100]  
 [Selected project year: 2017 ]  
 PSIP Database / PSIP Proposal / Project Details

Exit pdf print

General Info Outline Project Performance Annual Project Cost Matrix Monitoring Evaluation Proposal Applied FY Proj.Mngmt. Structure

**General Information**

1	Project Code	Project Code 1100	PSIP Previous Code 08-050-001
2	Project Title *	Construction and Rehabilitation of State Houses and State Lodges	
	Project Type *	Development/Infrastructure	
	Readiness of Project *	<input type="checkbox"/> Ready to start designing <input type="checkbox"/> feasibility study completed <input type="checkbox"/> land Acquisition is completed <input type="checkbox"/> hiring of contractors done <input checked="" type="checkbox"/> Project is under implementation <input type="checkbox"/> Others If you select Others, please specify here what it is?	
	Flagship Project		
	Project Origin: *	Presidential/Cabinet/Ministerial Directive	
3	Alignment to MGDs: *	MGDs: Yes	MGDs Theme: 150 Improved Governance

Figure 16: Project Detail screen

- Save function

PSIP staff and Administrators can edit some parts of the template and save by clicking on save button. These are the Original TEC of Project, if project is a flagship and period of implementation.

PSIP Database / PSIP Proposal / Project Details

Save pdf print

Figure 17: Save function

- Print output function

Print function is available in each page and PDF button that downloads the template into PDF format.



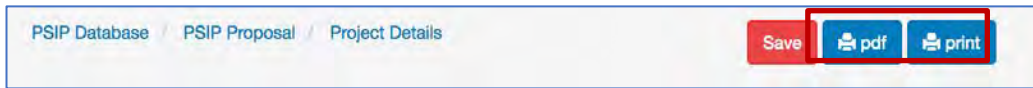


Figure 18: Print function

### 5.2.4 Show summary

Instead of displaying the specific proposal information one by one, you can list all the projects in one table summarizing the submitted proposal information.

- 1) Go to PSIP Proposal-> Show summary from the left pain menu.

The screenshot displays the 'Project Summary [Form 1]' interface. At the top, it shows the fiscal year as '2017/18' and a 'Vote' dropdown set to 'All Votes'. Below this, a summary table shows 'Total: 328 Projects' with columns for 'FY2017/18 Part I requested' and 'FY2017/18 Part II requested'. A 'Download' icon is visible next to the summary table.

The main table lists projects with the following columns: No., Vote, NEW/ONGOING (FY2016/17 Status), Project Title, Project Purpose, FY2016/17 Start-End (Orig), FY2016/17 Start-End (Revised), FY2017/18 Start-End (Orig), FY2017/18 Start-End (Revised), and FY2016/17 TEC (MK).

No.	Vote	NEW/ONGOING (FY2016/17 Status)	Project Title	Project Purpose	FY2016/17 Start-End (Orig)	FY2016/17 Start-End (Revised)	FY2017/18 Start-End (Orig)	FY2017/18 Start-End (Revised)	FY2016/17 TEC (MK)
1		ONGOING (ONGOING)	1100 - Construction and Rehabilitation of State Houses and State Lodges	To improve the accomodation and work environment for the Head state through rehabilitation of State Houses and lodges	Jul/2008 - Jun/2016 (8years)	Jul/2015 - Jun/2018 (3years)	Jul/2008 - Jun/2016 (8years)	Jul/2015 - Jun/2018 (3years)	50,000,000
2		ONGOING (ONGOING)	1453 - Construction of Security Fence at Kamuzu and Sanjika Palaces	To Construct and rehabilitate security fence at Kamuzu and Sanjika Palaces	Jul/2014 - Jun/2015 (1year)	Jul/2015 - Jun/2017 (2years)	Jul/2014 - Jun/2015 (1year)	Jul/2015 - Jun/2017 (2years)	50,000,000
3		ONGOING (PENDED)	1456 - Rehabilitation of Roads and Drive Ways at State Residences	To improve passability of roads in State Houses and facilitate timely delivery of State house business through rehabilitation of roads and drive ways	Jul/2014 - Jun/2017 (3years)	Jul/2015 - Jun/2018 (3years)	Jul/2014 - Jun/2017 (3years)	Jul/2015 - Jun/2018 (3years)	50,000,000

The sidebar on the left contains the following menu items: Home, PSIP Proposal, Submission Status, Project Details, and Show Summary (highlighted with a red dashed box).

Figure 19: Summary screen

This summary list is quite useful to compare all the projects since it shows TEC, Funding of the recent two years, information of donors and contacts at once.

- 2) To get the summary list in Excel format, you can click “Download” icon.

**[Note]** The project summary is one of the main tools for the appraisal. Be careful that if your proposal is not found here, it means that the project may be excluded from the appraisal. If your submitted project is not found in spite you have sent it to the PSIP unit, please contact to the PSIP staff.

## 5.3 Project Status Menu

### 5.3.1 Status & approved Budget

The Status and approved Budget submenu shows the list of results of project status and approved budget and the appraisal decision.

(1) Specify the financial Year FY, Vote and Status as search conditions

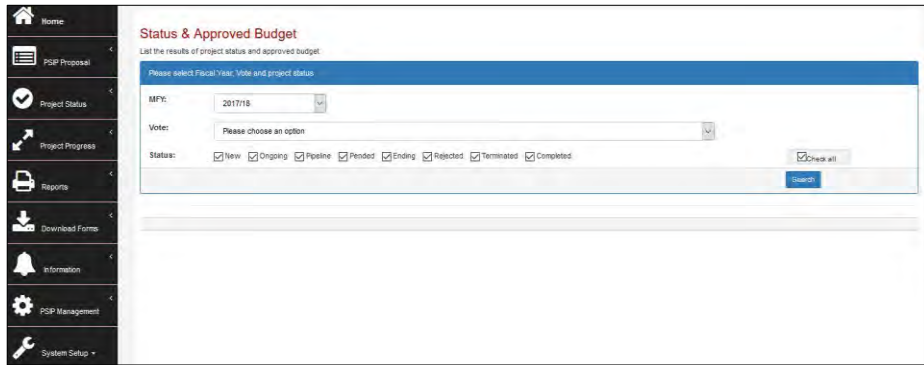


Figure 20: Status & Approved Budget

(2) The projects that meet the search conditions are listed in the table.

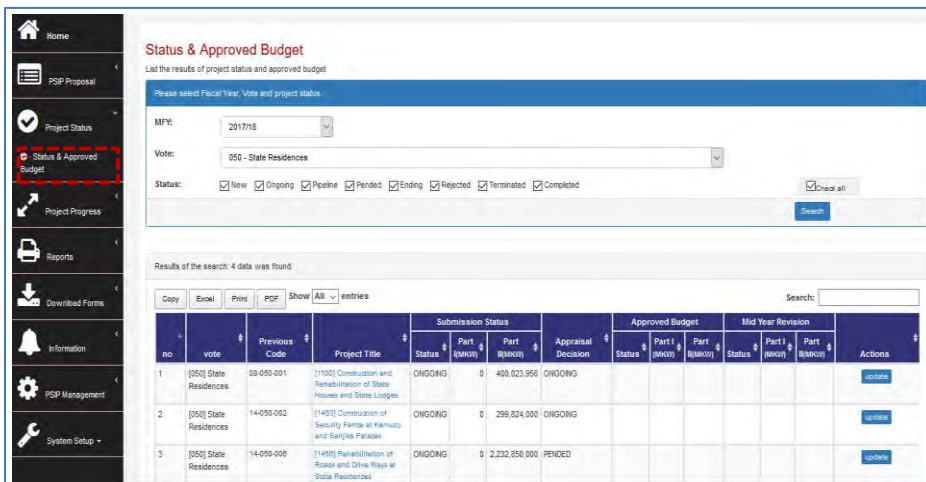


Figure 21: Status and Approved Budgeted list

The appraisal decision made by PSIP desk officer is shown in the appraisal decision column. The project has the proposed status submitted by MDA users through Excel Proposal Template. Then the status will have the result of appraisal. The following figure shows how the transition of the status of New, On-going and Pipeline goes.

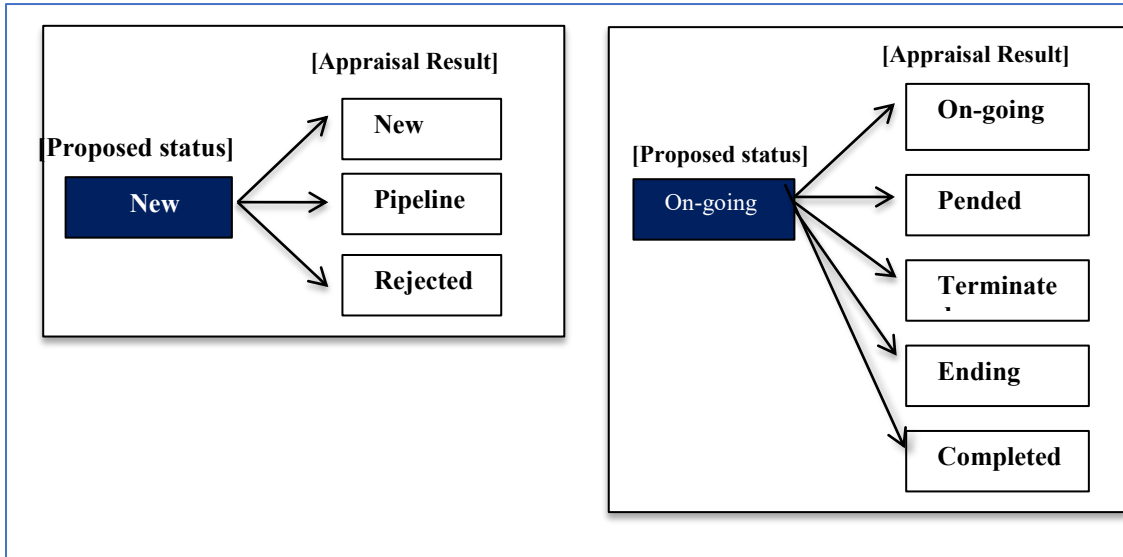


Figure 22: Transition of Project Status

The Proposed status by submission is set as project status after the proposal submission of the projects by MDA users. After the appraisal, its decision is set around mid-February overwriting the original status. The approved status column after the Parliament is inserted in the table as shown in the figure below. This means that the approved status column represents the final decision of the project which will be set around August.

no	vote	Previous Code	Project Title	Submission Status			Appraisal Decision	Approved Budget			Mid Year Revision			Actions	
				Status	Part I(MKW)	Part II(MKW)		Status	Part I (MKW)	Part II(MKW)	Status	Part I (MKW)	Part II(MKW)		
1	[050] State Residences	08-050-001	[1100] Construction and Rehabilitation of State Houses and State Lodges	ONGOING	0	400,023,956	ONGOING	PENDED							<a href="#">update</a>
2	[050] State Residences	14-050-002	[1453] Construction of Security Fence at Kamuzu and Sanjika Palaces	ONGOING	0	299,824,000	ONGOING	ONGOING		100,000,000	ONGOING				<a href="#">update</a>
3	[050] State Residences	14-050-005	[1456] Rehabilitation of Roads and Drive Ways at State Residences	ONGOING	0	2,232,850,000	ONGOING	ENDING	1,456	1,456					<a href="#">update</a>
4	[050] State Residences	14-050-006	[1457] Replacement and Rehabilitation of Plants and Equipment at State Residences	ONGOING	0	887,723,364	ONGOING	ONGOING		300,000,000	ONGOING		1		<a href="#">update</a>
5	[060] National Audit Office		[1951] Capacity Building Programme	NEW	0	0	NEW	NEW	380,000,000						<a href="#">update</a>
6	[070] The Judiciary	09-070-004	[1168] CONSTRUCTION OF COMMERCIAL COURT	ONGOING	0	0	ONGOING	ONGOING		600,000,000					<a href="#">update</a>

Figure 23: Four status of the project

**[Note]** the “Project Status” is always reflecting the most actual status.

### 5.3.2 Edit Appraisal Results of Proposals

By clicking the “update” button, it takes you the Edit Appraisal Results of Proposals screen. The status can be adjusted by clicking on the pointers in the status bar which then shows a dropdown list of the status.

Figure 24: Edit appraisal results of proposal

## 5.4 Project Progress

### 5.4.1 Project Quarterly Progress Report Status

As a reporting function, you can list all the status of Project Quarterly Progress Report selecting the year and vote. All the projects with project status “On-going” or “NEW” is retrieved according to your specified filter showing which quarterly period of the report is already submitted and which is yet pending.

no	Vote	Votename	Project Title	Latest Status	Year	Status of submission	Extension
1	050	State Residences	[1100] Construction and Rehabilitation of State Houses and State Lodges thoko	ONGOING	2016	1Q: 2Q: 3Q: 4Q:	Extension
2	050	State Residences	[1453] Construction of Security Fence at Kamuzu and Sanjika Palaces	ONGOING	2016	1Q: 2Q: 3Q: 4Q:	Extension
3	070	The Judiciary	[1700] REHABILITATION OF COURT BUILDINGS	ONGOING	2016	1Q: 2Q: 3Q: 4Q:	Extension
4	090	Office of the President and Cabinet	[1236] Green Belt Initiative	ONGOING	2016	1Q: 2Q: 3Q: 4Q:	Extension

Figure 25: Quarterly Progress Report screen

**[Note]** The MFY will be selected with the year of the project which Quarterly Progress Report corresponds to. For example, if MDA users submit the report for year 2016/17 project, select the year 2016/17 and the table shows all the 2016/17 projects that are supposed to submit report with project status New, Ongoing, Ending checked as a default.

If “show only submitted projects” checkbox is checked, only project who submitted Quarterly Progress Report will be listed.



Figure 26: Check button for submitted projects

The result of the search will be displayed after the search button is clicked with the specified conditions. The red number in the square represents the number of submitted reports each quarter.

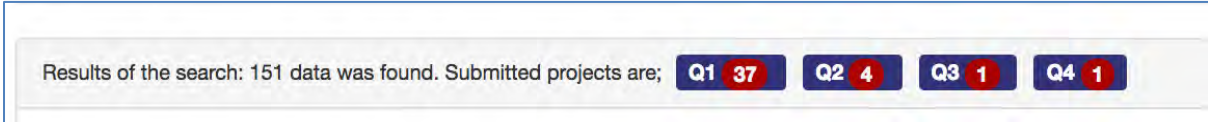



Figure 27: Results for all votes search

### 5.4.2 Report Detail

If the report is submitted, you can click the blue OK button  to see the detail of the report corresponding to the project. There are tabs such as Main, Project Performance, which information is exactly the same as Excel Project Quarterly Report. Please refer the Excel Manual for the detail information.

### 5.4.3 How does the system decide if the report is submitted or not

The system employs the following two conditions to see if the quarterly report is submitted.

- It checks if information on finance issues/ performance issues/ actions/ others is/are not empty.
- All above issues are empty but performance is not empty.

### 5.4.4 Extension Request

The submitted Extension Request information is available selecting "Extension Request" tab on the Quarterly Progress tab. The content is displayed with the same information as Excel Format.



Figure 28: Extension Tab

### 5.4.5 Completion Report

If the project is completed and the report is submitted by Excel format, the content is also displayed on the "Completion Report" tag.



Figure 29: Completion report tab

### 5.4.6 Feedback of Extension Request

On the Extension Request column, the "Requested" or "Show Result" button is displayed if the project has submitted the extension request.

The red "Requested" means that the project has submitted the request, while the green "Show Result" represents that the result is already done.

Latest Status	Status of submission	Extension Request
ONGOING	1Q: OK ✓ 2Q: --- 3Q: --- 4Q: ---	Requested
ONGOING	1Q: --- 2Q: --- 3Q: OK ✓ 4Q: ---	
ONGOING	1Q: --- 2Q: --- 3Q: OK ✓ 4Q: ---	
ONGOING	1Q: --- 2Q: --- 3Q: OK ✓ 4Q: ---	
ONGOING	1Q: --- 2Q: --- 3Q: OK ✓ 4Q: ---	
ONGOING	1Q: OK ✓ 2Q: --- 3Q: --- 4Q: ---	Show Result
ONGOING	1Q: OK ✓ 2Q: OK ✓ 3Q: --- 4Q: ---	
ONGOING	1Q: OK ✓ 2Q: --- 3Q: --- 4Q: ---	
ONGOING	1Q: OK ✓ 2Q: --- 3Q: --- 4Q: ---	Requested
ONGOING	1Q: OK ✓ 2Q: --- 3Q: --- 4Q: ---	Requested

Figure 30: Quarterly report submission status and feedback screen

Clicking the button shows popup window where you can edit the detail of the request and approval/withdrawal.

**Approve / Withdraw Extension Request**

**1706 - The Rehabilitation of Access Road at Staff Development Institute**

Vote: 093 - Department of Human Resources Management and Development

**Request contents**

<b>Approval Status</b>	Approved
<b>Project Period</b>	Original From Jul 2016 To Jun 2017
	Request From Jul 2017 To Jun 2018
	Approve From Jul 2017 To Jun 2018
<b>TEC</b>	Original 20,000,000
	Request 100,000,000
	Approve 100,000,000
<b>Reason for Request</b>	THE ESTIMATED COST FOR THE REHABILITAION OF THE ONE(1) KILOMETRE OF THIS ROAD WAS K217, 904,300 BUT ONLY K100,000,000 WAS APPROVED IN THE 2016/17 FINANACIAL YEAR. THE APPROVED AMOUNT WILL COVER SLIGHTLY LESS THAN HALF (0.5) KILOMETRES OF THE ONE (1) KILOMETERE OF THE ROAD THAT NEEDS REHABILITATION HFNCE THE REQIUEST OF EXTENSION
<b>Reason for the Decision</b>	

Figure 31: Detail of the extension request

## 5.5 Reports

### 5.5.1 Project List

This function shows the project summary based on the TEC and Donor by specifying the responsible ministry and MDA.

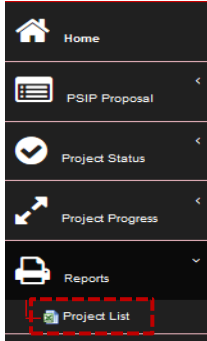


Figure 32: Reports sub-menu

Figure 33: Show project summary report

- To view by Vote, Select MFY, the vote then check on the TEC or donor then click show button. Once that is done then the table below is shown.

[050 State Residences] <span style="background-color: red; color: white; padding: 2px;">3 Projects</span>				Submission			Approved		
NO	Project Name	Project Period	Status	Part I	Part II	Total	Part I	Part II	Total
1	[1453] Construction of Security Fence at Kamuzu and Sanjika Palaces	Jul/2015 - Jun/2017	ONGOING	0	299,824,000	299,824,000	0	100,000,000	100,000,000
2	[1456] Rehabilitation of Roads and Drive Ways at State Residences	Jul/2015 - Jun/2018	ENDING	0	2,232,850,000	2,232,850,000	1,456	1,456	2,912
3	[1457] Replacement and Rehabilitation of Plants and Equipment at State Residences	Jul/2015 - Jun/2018	ONGOING	0	887,723,364	887,723,364	0	300,000,000	300,000,000
Sub Total				0	3,420,397,364	3,420,397,364	1,456	400,001,456	400,002,912

Figure 34: Project summary

**[Note]**

When the MGDS Theme or Priority is selected by user, the grand total does not match as the whole project grand total, since there are projects which does not have the MGDS Theme or Priority

**[Note]**

If you are using **Microsoft Office higher than Office 2010** versions, when downloading the report, you might have noticed the problem of protected mode which disable to display the contents. Whenever you try to open an Office document (Word, Excel or PowerPoint file) which was downloaded from Internet or was attached in an email, Microsoft Office program opens it in **Protected View** which is also known as **Read Mode** or **Restricted Mode**.

You can turn off Protected View feature, following simple steps:

1. First launch any Office program such as Microsoft Word and then click on File menu present in the ribbon.
2. Now click on Options tab present in the left sidebar.
3. It'll open Options window. Now click on "Trust Center" tab given at the end in left-side pane and then click on "Trust Center Settings" button.

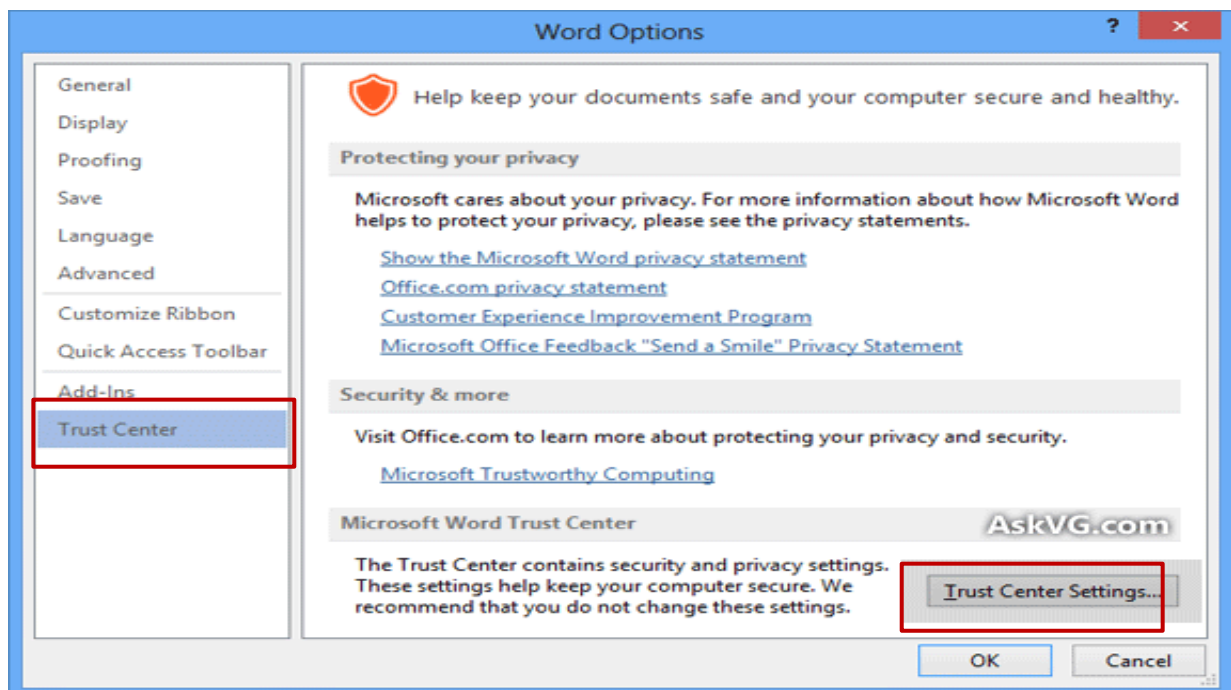


Figure 35: Protected view window

4. Click on "Protected View" tab and in right-side pane, you'll see following options:

Enable Protected View for files originating from the Internet



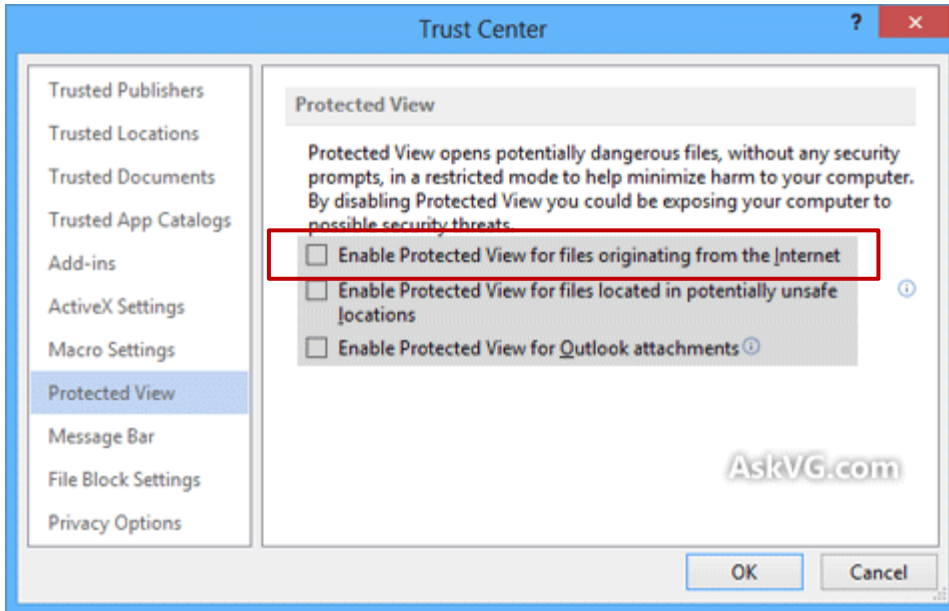


Figure 36: Trust center window

## 5.6 Download Forms

MDA/PSIP/Admin users can download Project Proposal for;

- New Project Proposal (Blank format)
- New Project Proposal (Pipeline project)
- On-going Project Proposal
- Quarterly Progress Report
- PFM-IT

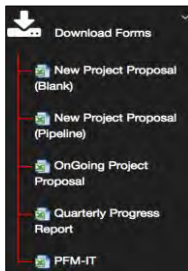


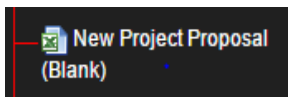
Figure 37: Download sub-menu

**[Note]** The download menu is invisible for GUEST role users.

### 5.6.1 How to download the PSIP templates

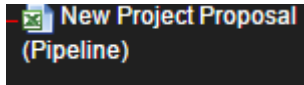
(1) New project proposal (Blank)

Once the sub menu of download new project proposal (Blank) is clicked then the save as window pops up and then the file can be saved.



(2) New project proposal (Pipeline)

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears and download can be done.



**Download Project Templates [New (Pipeline)]** [go back to menu](#)

**Select vote to download project templates**

Vote: [190 - Ministry of Agriculture, Irrigation and Water Development] code:190

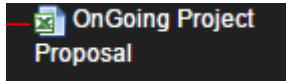
**download selected files** Click Template File name if you want to download only one file.  
If you want to download multiple files, check 'select/unselect all' check box and click 'download selected files' button.

NO	select/unselect	Template File name
1	<input type="checkbox"/>	<a href="#">1718_190_NEW_PROMOTION_OF_FRUIT_PRODUCTION.xlsm</a>
2	<input type="checkbox"/>	<a href="#">1718_190_NEW_CONSTRUCTION_OF_MZIMBA_DAM_IMPLEMENTATION_PHASE.xlsm</a>
3	<input type="checkbox"/>	<a href="#">1718_190_NEW_Proposal_for_Extension_of_Mangochi_Water_Supply_Sy.xlsm</a>
4	<input type="checkbox"/>	<a href="#">1718_190_NEW_Promotion_of_sorghum_rice_and_legumes_foundation.xlsm</a>
5	<input type="checkbox"/>	<a href="#">1718_190_NEW_Construction_of_Mzimba_Dam_Detailed_Designs_Rev1.xlsm</a>

Figure 38: Shows download function for pipeline project

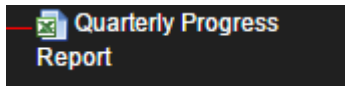
(3) Ongoing project proposal

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears and download can be done.



(4) Quarterly progress reports

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears and download can be done.



**Download Project Templates [QTRReport]** [go back to menu](#)

**Select vote to download project templates**

Vote: [275 - Subvented Organisations] code:275

**download selected files** Click Template File name if you want to download only one file.  
If you want to download multiple files, check 'select/unselect all' check box and click 'download selected files' button.

NO	select/unselect all	Template File name
1	<input type="checkbox"/>	<a href="#">1617_275_QTREPORT_Improving_In-house_Printing_Capacity_of_Examinatio.xlsm</a>
2	<input type="checkbox"/>	<a href="#">1617_275_QTREPORT_CONSTRUCTION_OF_ADMINISTRATION_BLOCK.xlsm</a>
3	<input type="checkbox"/>	<a href="#">1617_275_QTREPORT_Construction_project_for_Lilongwe_University_of_Ag.xlsm</a>
4	<input type="checkbox"/>	<a href="#">1617_275_QTREPORT_Expansion_of_Chancellor_College_School_of_Economic.xlsm</a>

Figure 39: Screen after clicking the quarterly report button

(5) PFM-IT

Clicking on the sub menu navigates to the download window where a vote of choice is selected from the drop-down list. Once the vote is selected then the list of projects appears and download can be done.

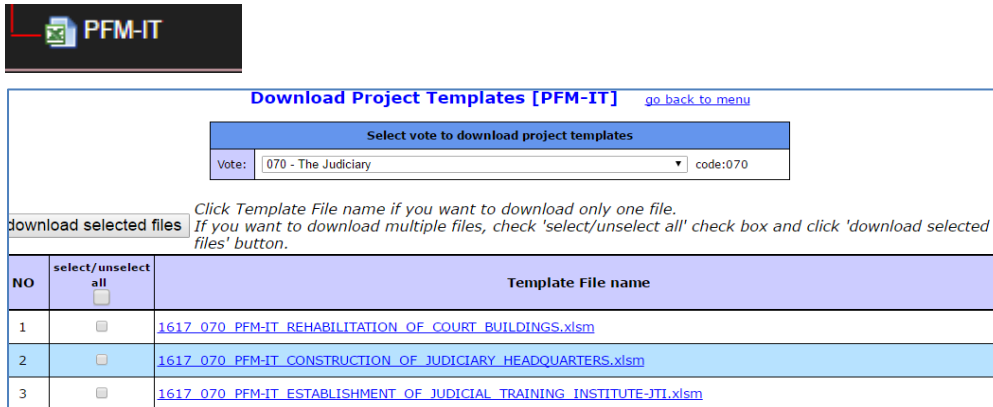
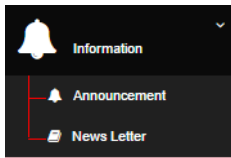


Figure 40: Screen after clicking the PFM-IT button

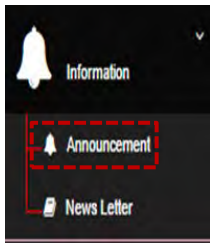
### 5.7 Information

This is an information function which shows the announcements made by PSIP and PSIP Newsletter.



#### 5.7.1 Announcement

1). Click on the announcements to navigate to the announcements screen



- The announcements Page

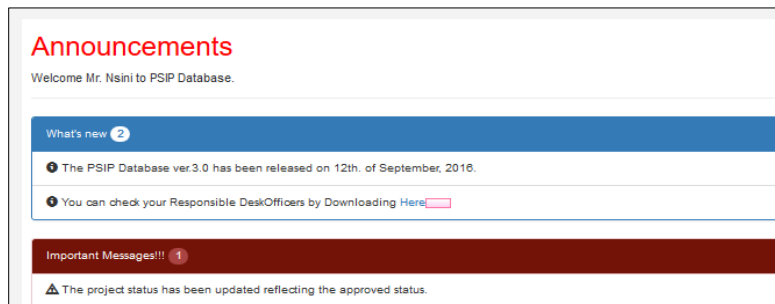


Figure 41: Announcement page

### 5.7.2 How to edit Announcement

The content of Announcement is managed in Announcement table of Database. The table is editable only by Administrators.

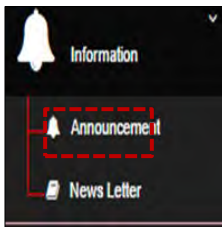
The following figure shows the Announcement table in AdminTool.

Announcement							Q Search	Add Announcement
Odr	Value	Remark	Ts	Log id	ID	Actions		
1	I	The project status has been updated reflecting the approved stat...	July 31, 2017 22:54	6,857	2			
1	N	<span class=psipRed>The PSIP Database ver.4.0 has been release...	July 31, 2017 22:56	6,857	1			
2	N	You can check your Responsible DeskOfficers by Downloading <a hr...	July 31, 2017 22:53	6,857	3			

Figure 42: Announcement table in Admin Tool

- Value I; Important message
- Value N; New message
- Remark; The content of message

### 5.7.3 Newsletter



- The newsletter page



Figure 43: Newsletter Page

## 5.8 PSIP Management (PSIP/Admin Only)

### 5.8.1 Template Loader

This is a manual uploading function that loads a project on the PSIP Database.

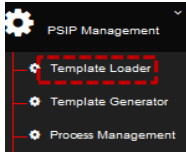


Figure 44: Upload function screen

- (1) Click on the choose file which explores you inside computer then select project file and click load the file. Then project navigates to another window

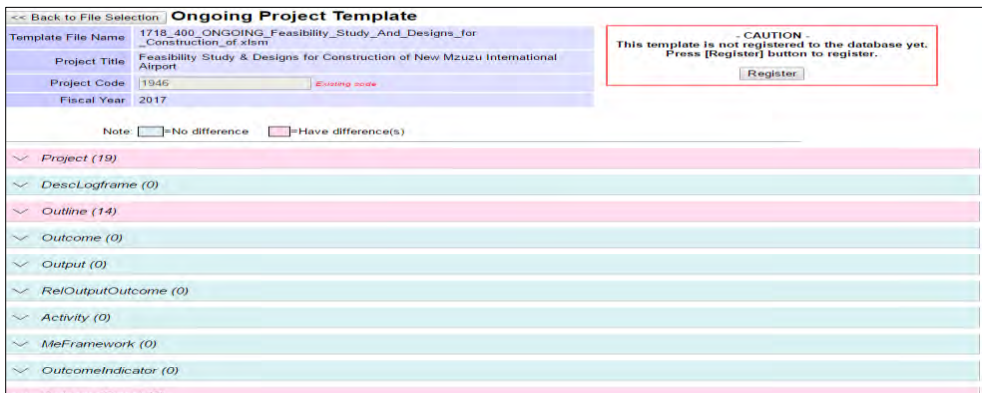


Figure 45: Project loading registration window

- (2) Click on Register

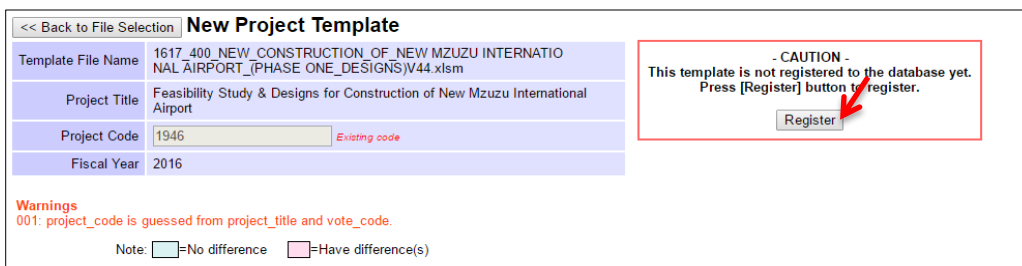


Figure 46: Registering button

- By clicking on the register button then the registered project is shown as below.

<< Back to File Selection

**Registration Result: 1946**

Registration successful.

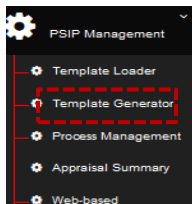
Registered projects (Vote: 400)

No.	Project Code	Project Title	Template Type
1	1001	Shire-Zambezi Waterway	Ongoing
2	1089	Acquisition of Airport Navigation Equipment	Ongoing
3	1090	Rehabilitation of Chileka Airport Terminal Building and Security Fence	Ongoing
4	1213	Automation of Airport Administration System	Ongoing
5	1214	Upgrading of Geodetic System	Ongoing
6	1217	Acquisition and Modernisation of Fire Fighting Equipment	Ongoing
7	1361	Rehabilitation of Railway System	Ongoing
8	1611	Installation of Aids to Navigation on Lake Malawi Programme	Ongoing
9	1612	Construction of Marine Training College buildings and procurement of Training equipment	Ongoing
10	1615	Rehabilitation of KIA Terminal Building	Ongoing
11	1617	Establishment of One Stop Border Posts (Chiponde and Mchinji)	Ongoing
12	1804	Construction of Likoma Jetty	Ongoing
13	1926	Expansion and Rehabilitation of office blocks for Buildings Department Offices	New
14	1928	Expansion and Rehabilitation of office blocks for Buildings Department Regional Offices	New
15	1946	Feasibility Study & Designs for Construction of New Mzuzu International Airport	Ongoing

Figure 47: Successfully registered project

### 5.8.2 Template Generator

This shows how to generate new and pre-filled Project Templates Proposals, Quarterly Progress Reports and PFM-IT Tools for use in the next fiscal year and for repairing.



<< Go to Menu

**Generate Project Forms**

Please select a Vote and Template Type. And then select project(s) and press [Download].

**Vote selection**  
 == Please select a vote ==

**Template Type**  
 New  Ongoing: As of FY [Latest]   
 Quarterly Report: For FY [2016]   
 PFM-IT: For FY [2016]

**Download**  
   
 Force zip

**Purpose of Generation**  
 Generate for Circular  Repair Excel Form

**Display option**  
 New  OnGoing  Pipeline  Pended  Ending  Terminated  Rejected  Undefined   
 FY2016/17 submitted projects Only

Select

PSIP Template Utility Ver. 3.01.38 Copyright © 2013-2017 Japan International Cooperation Agency (JICA)

Figure 48: Template generator

To download select the vote of choice, check on the purpose of generating the template, check the template type against the year from which you want to generate the template, check the status to be generated project. Then click on the Download.

### 5.8.3 Process Management

This is a PSIP process management function where PSIP Staff can input Site validation reports of projects, make project initial and final appraisal and can also input ministerial

minutes. It also shows the state of the proposal by showing number of errors, shows if Quarterly Progress Report was submitted, project proposal transition and budget transition.

**PSIP Management**

- Template Loader
- Template Generator
- Process Management**
- Appraisal Summary
- Web-based Submission

**PSIP Process Management**

FY 2017/18 | Vote: All Votes | View Process Summary Report | View Ministerial Minutes Summary

No.	Project Title	Project Code	Approved Status in FY2016/17 (Budgeted)	Quarterly Report FY2016/17 ((EX)-Extension request)	Site Validation Log	Progress Remark	Attachments	Request for PSIP FY2017/18 Submission			Latest Upload		
								Submitted Date	Uploaded Date	Errors in the Template	Uploaded Date	Errors in the Template	Show Template (Latest)
<b>050 - State Residences [4]</b>													
1	Construction and Rehabilitation of State Houses and State Lodges	1100	ONGOING		create	show	show	2016-12-05 09:58:24	2016-12-05 09:59:04	0	show		show
2	Construction of Security Fence at Kamuzi and Sangha Palaces	1453	ONGOING		show	create	show	2016-12-05 09:58:17	2016-12-05 09:58:44	0	show		show
3	Rehabilitation of Roads and Drive Ways at State Residences	1456	PENDED		create	create	show	2016-12-05 09:58:07	2016-12-05 09:59:13	0	show		show
4	Replacement and Rehabilitation of Plants and Equipment at State Residences	1457	PENDED		create	create	show	2016-12-05 09:58:14	2016-12-05 09:58:54	0	show		show
<b>070 - The Judiciary [3]</b>													
1	CONSTRUCTION OF COMMERCIAL COURT	1168	--		show	create	show	2016-12-09 14:28:23	2016-12-09 14:28:59	9	show	<Required>	show
2	CONSTRUCTION OF JUDICIARY HEADQUARTERS	1169	--		create	create	show	2016-12-09 14:28:19	2016-12-09 14:29:11	45	show	<Required>	show
3	REHABILITATION OF COURT BUILDINGS	1700	ONGOING		create	create	show	2017-01-31 09:50:40	2017-01-31 09:50:54	1	show	<Required>	show
<b>080 - National Assembly [2]</b>													

Figure 49: PSIP process management screen

### 5.8.4 Quarterly Report

(1) Click on the Q1 icon, this will navigate to the quarterly report

**Quarterly Report FY2016/17 ((EX)-Extension request)**

Q1 EX

**Project Quarterly Progress Report Template**

1\_Main 2\_ProjectPerformance 3\_Request for Extension 4\_Completion Report

You can switch tabs to view

**FY2016/17 Project Quarterly Progress Report form**

- MAIN PAGE -

1	Fiscal Year / Quarter	2016/17
2	Project Code	1706
3	Project Title	The Rehabilitation of Access Road at Staff Development Institute
4	Vote Description	093 Department of Human Resources Management and Development
	Responsible MDA	Department of Human Resources Management and Development
	Implementing Agency (Division or Unit)	Staff Development Institute
5	PBB - Program	

Figure 50: Quarterly report view

(2) To View the Extension request form

An approval decision is made from the proposed extension request form from an MDA. One can reject the request, approve the decision or withdraw the approval decision by further clicking on the Approval Buttons.



Figure 51: Extension approval decision screen

### 5.8.5 Site Validation Report

- (1) To create a field validation report, click on create in the site validation column against the project monitored and once the create button is clicked, a window pops up where the results of site validation are inputted.

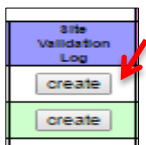
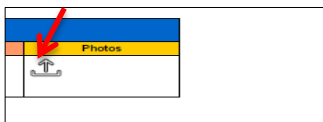


Figure 52: Data input screen for site validation log

- (2) After data input register by clicking on the “register button



- (3) To input Photos



- (4) Drop pictures in the drop files which then will appear in the uploaded.



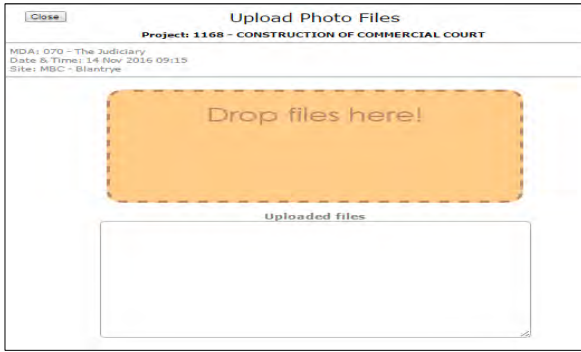


Figure 53: Site validation pictures upload function

(5) To view the input, click on Show button icon



(6) Upon a click the show button navigates to the registered data screen.

PSIP Site Validation Log

Project: 1474 - EXTENSION OF DWELLING UNITS AT MARINE UNIT

[Add a new record](#)

MDA: 100 - Ministry of Defence  
Implementing Agency: Policy and Planning

Edit / Delete	Visited Date	Site (Visited place)	Validation Team	Persons met	Progress	Challenges	Recommendations
	07 Mar 2017 08:00	Mangochi(Monkey bay)	David Chirong'one Afrike Nsim Giri Njiloma	major Mhone Lida Miendo	• Slow progress	<ul style="list-style-type: none"> <li>• Relocation of the occupants to completed houses is happening at a slow pace because only two houses are completed</li> <li>• Heavy rains which affected the construction works</li> <li>• Unavailability of Construction materials e.g. Timber which has become scarce and expensive</li> <li>• Funding inconsistencies</li> </ul>	Need for quick action because the houses are in uninhabitable state and the Contractor is geared to complete by August if resource flow is consistent.

Figure 54: Site log data

(7) To add new data to the Site validation log Screen, click on the add new record.

PSIP Site Validation Log

Project: 1474 - EXTENSION OF DWELLING UNITS AT MARINE UNIT

[Add a new record](#)

MDA: 100 - Ministry of Defence  
Implementing Agency: Policy and Planning

Edit / Delete	Visited Date	Site (Visited place)	Validation Team	Persons met	Progress	Challenges	Recommendations
	07 Mar 2017 08:00	Mangochi(Monkey bay)	David Chirong'one Afrike Nsim Giri Njiloma	major Mhone Lida Miendo	• Slow progress	<ul style="list-style-type: none"> <li>• Relocation of the occupants to completed houses is happening at a slow pace because only two houses are completed</li> <li>• Heavy rains which affected the construction works</li> <li>• Unavailability of Construction materials e.g. Timber which has become scarce and expensive</li> <li>• Funding inconsistencies</li> </ul>	Need for quick action because the houses are in uninhabitable state and the Contractor is geared to complete by August if resource flow is consistent.

Figure 55: Add new data button

### 5.8.6 Project Remark

(1) To create any updates on the project and remarks click on the “Create” in the column of project remark in the process management screen.

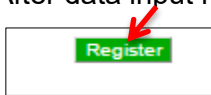
080 - National Assembly [2]						
No.	Project Title	Project Code	Approved Status in FY2016/17 (Budgeted)	Quarterly Report FY2016/17 ([[X]]=Extension request)	Site Validation Log	Progress Remark
1	Construction of Parliament Building-Phase 2	1482	PIPELINE		create	Create
2	Modernization of Parliament for Effective Representation Project	1897	--		create	Create

Figure 56: Create button for progress remark

- The click button navigates to the data input screen

Figure 57: Input progress data screen

- After data input register by clicking on the “register button”.



### 5.8.7 Other relevant attachment

- To add attachments pertaining a project click on the attachment icon in the Process Management Screen.



- Upon a click to the attachment icon, the Database navigates to Uploading files window. Drop files in the drop files here which then will load automatically, then close the window.

Figure 58: Attachment data input screen

[To view registered data]

- (1) Click on the attachment show icon in the attachment column of the Process management screen. From which upon a click on the file link the file opens



- (2) Upon a click of the button it navigates to a new window bearing a dialogue box of registered data. Click on the file name to view the content.

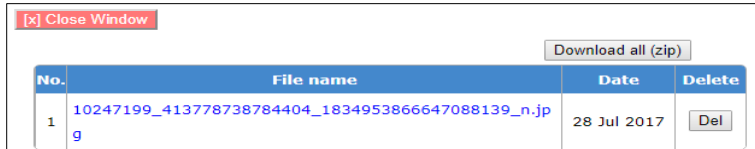


Figure 59: File attachment

- (3) To download all files, click on the download button in the registered data window. The files will download

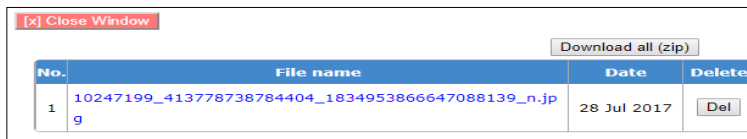


Figure 60: Download attachment button

- (4) To delete the file, click on the delete button in the same registered data window.

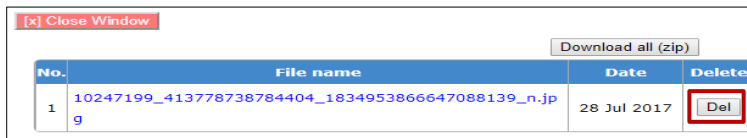


Figure 61: Delete button

### 5.8.8 Project Template Contents

- (1) To show template click on the "show" PSIP Database will navigate to the template

Request for PSIP FY2017/18 Submission Deadline: 31-Oct-2016				Latest Upload		
Submitted Date	Uploaded Date	Errors in the Template	Show Template (Original)	Uploaded Date	Errors in the Template	Show Template (Latest)
016-12-05 09:58:11	2016-12-05 09:59:04	0	show			show
016-12-05 09:58:17	2016-12-05 09:58:44	0	show	2017-03-20 10:22:31	0	show
016-12-05 09:58:07	2016-12-05 09:59:13	0	show			show
016-12-05 09:58:14	2016-12-05 09:58:54	0	show			show

Figure 62: Show project template

### 5.8.9 Initial Appraisal

- (1) To make initial appraisal click on the initial appraisal button, this will navigate to the Appraisal Matrix.

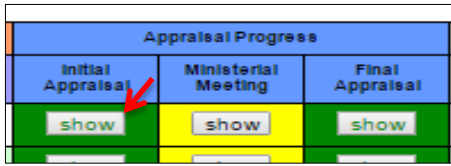


Figure 63: Show appraisal data

- (2) Initial Appraisal Screen pops up after clicking on the initial appraisal button as shown below.

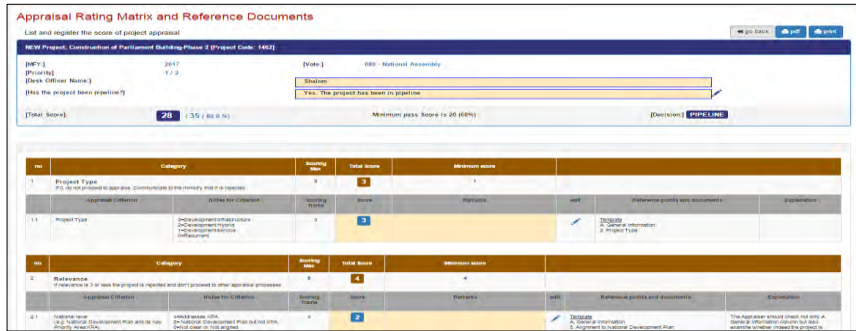


Figure 64: Appraisal rating matrix and reference documents

### 5.8.10 Final appraisal

This screen shows the final appraisal decision that is made by the desk officer; the desk-officer may score 1 or 0 according to the proposed requirement. This requirement is made complete by checking by summing up the individual scores from the initial appraisal.

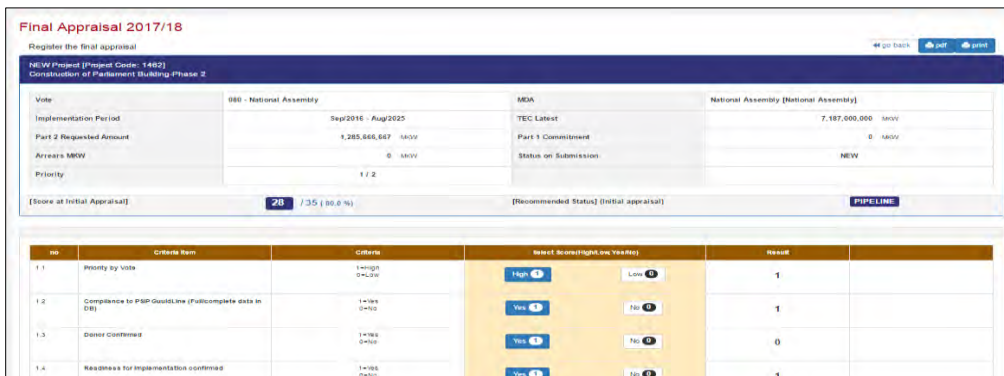


Figure 65: Final appraisal screen:

- (1) A score can be given to the requirement by clicking on the High button or low. High gives a score of one and 0 a score of Zero.



- (2) Critical information for a project can be typed in the dialogue box by clicking on the edit pen.

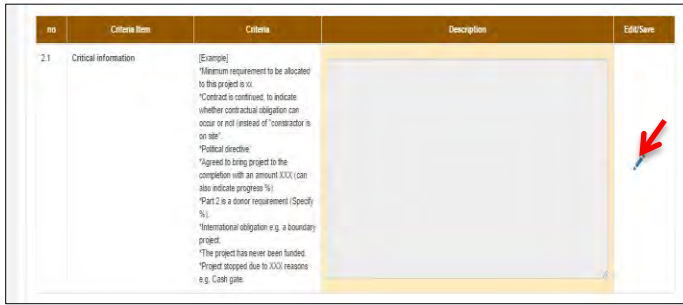


Figure 66: Edit function

- (3) Proposed allocations can be placed in the allocations box by clicking in the edit button, which makes the cells editable.



Figure 67: Allocations edit function

### 5.8.11 Ministerial Meeting Minutes

To input Ministerial Meetings minutes, click on the Show in the Ministerial meeting column, this then navigates to the data input screen.

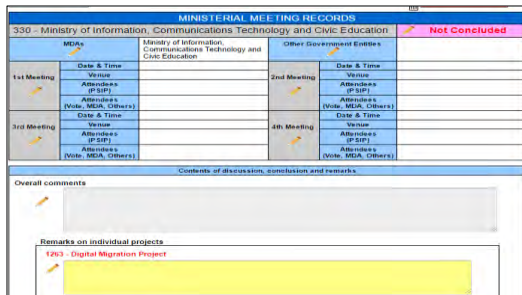


Figure 68: Ministerial minutes data input screen

### 5.8.12 Summary of Ministerial Minutes

Click on the View Ministerial Minutes Summary in the PSIP process management window.

<< Go to Menu

**PSIP Process Management**

FY 2017/18 | Vote -- All Votes -- | [View Process Summary Report](#) | [View Ministerial Minutes Summary](#)

050 - State Residences [4]								Request for PSIP FY2017/18 Submission Deadline: 31-Oct-2016				Latest Upload		
No.	Project Title	Project Code	Approved Status in FY2016/17 (Budgeted)	Quarterly Report FY2016/17 ((EX)-Extension request)	Site Validation Log	Progress Remark	Attachments	Submitted Date	Uploaded Date	Errors in the Template	Show Template (Original)	Uploaded Date	Errors in the Template	Show Template (Latest)
1	Construction and Rehabilitation of State Houses and State Lodges	1100	ONGOING		<a href="#">create</a>	<a href="#">show</a>		2016-12-05 09:58:24	2016-12-05 09:59:04	0	<a href="#">show</a>			<a href="#">show</a>
2	Construction of Security Fence at Kamuzu and Sanjika Palaces	1453	ONGOING		<a href="#">show</a>	<a href="#">create</a>		2016-12-05 09:58:17	2016-12-05 09:58:44	0	<a href="#">show</a>			<a href="#">show</a>
3	Rehabilitation of Roads and Drive Ways at State Residences	1456	PENDED		<a href="#">create</a>	<a href="#">create</a>		2016-12-05 09:58:07	2016-12-05 09:59:13	0	<a href="#">show</a>			<a href="#">show</a>
4	Replacement and Rehabilitation of Plants and Equipment at State Residences	1457	PENDED		<a href="#">create</a>	<a href="#">create</a>		2016-12-05 09:58:14	2016-12-05 09:58:54	0	<a href="#">show</a>			<a href="#">show</a>

070 - The Judiciary [3]								Request for PSIP FY2017/18 Submission Deadline: 31-Oct-2016				Latest Upload		
No.	Project Title	Project Code	Approved Status in FY2016/17 (Budgeted)	Quarterly Report FY2016/17 ((EX)-Extension request)	Site Validation Log	Progress Remark	Attachments	Submitted Date	Uploaded Date	Errors in the Template	Show Template (Original)	Uploaded Date	Errors in the Template	Show Template (Latest)
1	CONSTRUCTION OF COMMERCIAL COURT	1168	--		<a href="#">show</a>	<a href="#">create</a>		2016-12-09 14:28:23	2016-12-09 14:28:59	9	<a href="#">show</a>	<Required>		<a href="#">show</a>
2	CONSTRUCTION OF JUDICIARY HEADQUARTERS	1169	--		<a href="#">create</a>	<a href="#">create</a>		2016-12-09 14:28:19	2016-12-09 14:28:11	45	<a href="#">show</a>	<Required>		<a href="#">show</a>

Figure 69: View ministerial minutes button

<> Close Ministerial

**Ministerial Meeting Summary**

Fiscal Year FY 2017/18 | Vote -- All Votes -- | Total: 33 Votes

Vote: All Votes |

No.	Vote	Date	Overall Comments	Summary of Discussion by Project
1	050 - State Residences	148 09 Dec 2016	<p>The MDA if its to make replication of funding it has to communicate to PSIP.</p> <p>Progress reports must be sent to the PSIP to monitor progress and for financial evidence.</p> <p>MMDA to submitted the remaining project which was not yet submitted by the 15th January.</p>	<p><b>[1100 - Construction and Rehabilitation of State Houses and State Lodges]</b></p> <ul style="list-style-type: none"> <li>No progress made on this project the resource in place were redirected to rehabilitation of the irrigation system.</li> <li>Proposals need to be refined so that they are developmental in nature not O&amp;M since maintenance is a component in the O&amp;M rather should concentrate on the actual building.</li> </ul> <p><b>[1453 - Construction of Security Fence at Kamuzu and Sanjika Palaces]</b></p> <ul style="list-style-type: none"> <li>No progress.</li> <li>Tagging Kamuzu Palace since approximately 8 km of the fence fell down.</li> <li>O&amp;M not working properly and its early near the gates, the system in place is obsolete. Thus there is need to construct the whole fence.</li> </ul> <p><b>[1456 - Rehabilitation of Roads and Drive Ways at State Residences]</b></p> <ul style="list-style-type: none"> <li>Requested the Roads Authority to undertake project and will first meet the Roads authority and Public works to ensure that the maintenance is taken into.</li> </ul> <p><b>[1457 - Replacement and Rehabilitation of Plants and Equipment at State Residences]</b></p> <ul style="list-style-type: none"> <li>Need procurement of the lifts and other equipment. The ones in place are obsolete and do not suit to be the level of state Residences.</li> </ul>
2	070 - The Judiciary	148 12 Dec 2016	<p>The agenda was adopted as presented. The Judiciary confirmed that it submitted one project Court rehabilitation project.</p> <p>PSIP reported that it only received quarterly report and not the project template. PSIP to crosscheck if the project template was early submitted.</p>	<p><b>[1168 - CONSTRUCTION OF COMMERCIAL COURT]</b></p> <p>The construction of the Commercial Court is phasing out in 2016/17 FY and the work remaining are painting and finishing touches such as furnishing. Currently at 75% of completion.</p> <p>The project has not had problems with disbursement but funded 1.1 billion balance of 400 million without which construction will not be completed. The previous year contractor abandoned the project, there vity project will split over to the 2017/18 FY.</p> <p>Contractor to resume works in January and expected to finalize furnishing and final</p>

### 5.8.13 Process Summary Report

Click on the View process summary report button in the PSIP process management window.

<< Go to Menu

**PSIP Process Management**


FY 2017/18 | Vote -- All Votes -- | [View Process Summary Report](#) | [View Ministerial Minutes Summary](#)

050 - State Residences [4]								Request for PSIP FY2017/18 Submission Deadline: 31-Oct-2016				Latest Upload		
No.	Project Title	Project Code	Approved Status in FY2016/17 (Budgeted)	Quarterly Report FY2016/17 ((EX)-Extension request)	Site Validation Log	Progress Remark	Attachments	Submitted Date	Uploaded Date	Errors in the Template	Show Template (Original)	Uploaded Date	Errors in the Template	Show Template (Latest)
1	Construction and Rehabilitation of State Houses and State Lodges	1100	ONGOING		<a href="#">create</a>	<a href="#">show</a>		2016-12-05 09:58:24	2016-12-05 09:59:04	0	<a href="#">show</a>			<a href="#">show</a>
2	Construction of Security Fence at Kamuzu and Sanjika Palaces	1453	ONGOING		<a href="#">show</a>	<a href="#">create</a>		2016-12-05 09:58:17	2016-12-05 09:58:44	0	<a href="#">show</a>			<a href="#">show</a>
3	Rehabilitation of Roads and Drive Ways at State Residences	1456	PENDED		<a href="#">create</a>	<a href="#">create</a>		2016-12-05 09:58:07	2016-12-05 09:59:13	0	<a href="#">show</a>			<a href="#">show</a>
4	Replacement and Rehabilitation of Plants and Equipment at State Residences	1457	PENDED		<a href="#">create</a>	<a href="#">create</a>		2016-12-05 09:58:14	2016-12-05 09:58:54	0	<a href="#">show</a>			<a href="#">show</a>

070 - The Judiciary [3]								Request for PSIP FY2017/18 Submission Deadline: 31-Oct-2016				Latest Upload		
No.	Project Title	Project Code	Approved Status in FY2016/17 (Budgeted)	Quarterly Report FY2016/17 ((EX)-Extension request)	Site Validation Log	Progress Remark	Attachments	Submitted Date	Uploaded Date	Errors in the Template	Show Template (Original)	Uploaded Date	Errors in the Template	Show Template (Latest)
1	CONSTRUCTION OF COMMERCIAL COURT	1168	--		<a href="#">show</a>	<a href="#">create</a>		2016-12-09 14:28:23	2016-12-09 14:28:59	9	<a href="#">show</a>	<Required>		<a href="#">show</a>
2	CONSTRUCTION OF JUDICIARY HEADQUARTERS	1169	--		<a href="#">create</a>	<a href="#">create</a>		2016-12-09 14:28:19	2016-12-09 14:28:11	45	<a href="#">show</a>	<Required>		<a href="#">show</a>

**PSIP Process Summary (by Vote)**

Fiscal Year FY 2017/18 

No.	Vote	Submitted	Uploaded	# of Projects	1st Appraisal	Ministerial Meeting Minutes	Site Validation Log	Final Appraisal
1	050 - State Residences	4	4	4	4	4	1	4
2	060 - National Audit Office							
3	070 - The Judiciary	3	3	3	3	1	1	3
4	080 - National Assembly	2	2	2	2	2		2
5	081 - Office of the Director of Public Officer's Declarations							
6	090 - Office of the President and Cabinet	2	2	1	1	1		1
7	093 - Department of Human Resources Management and Development	1	1	1	1	1		1
8	097 - Civil Service Commission	1	1	1	1	1		1
9	098 - Greenbelt Authority	1	1	1	1	1		1
10	099 - Office of the Director of Public Procurement (ODPP)							
11	100 - Ministry of Defence	7	7	7	1	6	2	6
12	101 - Malawi Defence Force							
13	120 - Ministry of Local Government and Rural Development	6	6	6	3	6	1	6

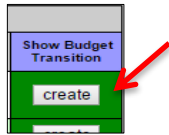
Figure 70: PSIP process Summary screen

### 5.8.14 Project Transition Screen

(1) To view the Project Transition screen

Project Status Transition			
On Submission	PSIP Recommended	On Budget Approval	Revised in the Mid Year
NEW	--	--	--
NEW	--	--	--

(2) To Create and edit transition budget data.



The create button will navigate to the project status and transition Screen.

no	Vote	Project	Items	On Submission	PSIP Recommendation Case A	PSIP Recommendation Case B	PSIP Recommendation Case C	PSIP Recommendation Case D	Allocation Adjustment	Approved Budget	Mid Year Revision
1	[050] State Residences	[1100] Construction and Rehabilitation of State Houses and State Lodges	Part1	ONGOING	ONGOING	ONGOING	ONGOING	ONGOING	ONGOING B=	1	
			Part2	400,023,956	400,023,956	400,000,000	250,000,000	200,000,000	400,000,000	0	
			Total	400,023,956	400,023,956	400,000,000	250,000,000	200,000,000	400,000,001	0	0

Figure 71: Project status and budget transition screen

### 5.8.15 Copy Scenario for PSIP Allocation

- (1) Click on the copy on the Project Status and Budget Transition to input the proposed status allocation according to the agreed case ceiling allocation afterwards check on the case and click copy on screen.



Figure 72: Copy allocation button upon selecting a case

- (2) You can change the Vote or Project status to copy all the corresponding information from select case to Allocation Adjustment at once.

**[Note]** When you copy the scenario case from A-D, you are working **in the temporal adjustment** and **it is NOT yet reflected as PSIP decision visible for MDA users** until you save the data in the next step.

### 5.8.16 Save scenario to Project table

- (1) To save the copied case of allocation as PSIP decision, click on save button on the Project Status and Budget Transition (2017/18) then click on save.

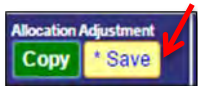


Figure 73: Save allocation adjustment case



After this save operation, the Allocation Adjustment information is reflected to “Project Status” menu and **the status will be visible for MDA users**.

In this page, you can change votes, or select all votes to save all status and budgets from one of four scenarios. It may take few minutes to save all allocation adjustment to the table.

### 5.8.17 Appraisal Summary Results

- (1) This shows the summary of appraisal results of a selected financial year’s submitted projects. It also aggregates requested amount for both Part 1 and Part 2.

No.	Vote	NEW/ONGOING (FY2017) (ONGOING)	Project Title	Project Purpose	Dates	FY2017 Part 1	FY2017 Part 2	Performance (in relation to Requested Amount)	Priority (by Year)		Ongoing	New	Priority Level	Critical Information	App. Sta.	
									H	L						
1	000 - State Residences	(ONGOING)	100 - Construction and Rehabilitation of State Houses and State Lodges	To improve the accommodation and work environment for the Head of State through rehabilitation of State Houses and Lodges.		0	400,000,000	Number of houses rehabilitated: 20 Number of houses and lodges constructed: 20	1	0	0	0		The project need more resources to ensure meaningful progress. The job to start, but constructing small houses in the state residences.	1	
2	000 - State Residences	(ONGOING)	440 - Construction of Security Fence at Lamuru and Empire Palace	To Construct and rehabilitate security fence at Lamuru and Empire Palace		0	388,824,000	1st of copies of designs produced 1st of copies of BIDs produced 1st of contracts awarded 1st of fence constructed or rehabilitated						The project need to rehabilitate 2 km section of Lamuru State House fence. The State House has the fence and has been earmarked for construction.	2	
3	000 - State Residences	(PENDING)	440 - Rehabilitation of Roads and Drive Ways at State Residences	To improve accessibility of roads in State Houses and facilities thereby enhance of State House business through roads and drive ways.		0	2,222,800,000	1st of roads rehabilitated: 15 km						The National Police scores marks are in used State House marks may rehabilitation, as the project need more financial resources to ensure meaningful progress the amount is 500,000,000	4	
4	010 - The Judiciary	(PENDING)	100 - CONSTRUCTION OF COMMERCIAL COURTS	The objective is to provide access to commercial justice by Members by providing modern and purposeful		0	0	2 construction and Superintendence Court Building ready and handed out 1st and 2nd House	1	1	1					5

Figure 74 : Appraisal summary screen

- (2) If you click on the Sigma it navigates you to appraisal statistics for appraised projects.

Results by Status (Vote only: All votes)						
Status	000A	000B	000C	000D	000E	000F
000 - State Residences	20,792,443	0	2,740,000	41	2,000,000	0
000 - State Residences	48,488,922	0	2,924,000	0	3,300,000	0
010 - The Judiciary	27,811,932	0	1,634,000	0	500,000	0
020 - Education	440,000,000	0	940,000,000	0	440,000,000	0
030 - Health Services	0	0	0	0	0	0
040 - Agriculture	0	0	0	0	0	0
050 - Industry	0	0	0	0	0	0
060 - Transport	0	0	0	0	0	0
Total	127,101,405	0	3,244,000	0	4,240,000	0

Allocation by Vote (All votes)						
Vote	000A	000B	000C	000D	000E	000F
000 - State Residences	4	1	1	1	1	1
010 - The Judiciary	0	0	0	0	0	0
020 - Education	2	2	2	2	2	2
030 - Health Services	1	1	1	1	1	1
040 - Agriculture	1	1	1	1	1	1
050 - Industry	1	1	1	1	1	1
060 - Transport	1	1	1	1	1	1
070 - Other Services	1	1	1	1	1	1
080 - Other Services	1	1	1	1	1	1
090 - Other Services	1	1	1	1	1	1
100 - Ministry of Education, Science and Technology	1	1	1	1	1	1
110 - Ministry of Health, Services and Transportation	1	1	1	1	1	1
120 - Ministry of Finance, Economic Planning and Development	1	1	1	1	1	1

Figure 75: Statistics screen

- (3) If you click on the download function the appraisal summary sheet gets downloaded in excel format.

(4) If you click on the project title link, this will navigate to the proposal file.

A. GENERAL INFORMATION	
1 Project Code	1100 Previous Project Code 08-050-001 Project Status PENDED
2 Project title	Construction and Rehabilitation of State Houses and State Lodges
Project type	Development/Infrastructure
Readiness of Project	<input type="checkbox"/> Ready to start designing <input type="checkbox"/> A design is available <input type="checkbox"/> Feasibility study completed <input type="checkbox"/> Detailed engineering design and costing is done <input type="checkbox"/> Land Acquisition is completed <input type="checkbox"/> Procurement Process has started <input type="checkbox"/> Hiring of contractors done <input type="checkbox"/> Procurement has been done <input checked="" type="checkbox"/> Project is under implementation <input type="checkbox"/> Have agreements/ MOUs been signed <input type="checkbox"/> Others
Project origin	Presidential/Cabinet/Ministerial Directive
3 Alignment to MGDS	MGDS: <input type="checkbox"/> Yes MGDS Theme: 150 Improved Governance MGDS Priority: <input type="checkbox"/>
4 Sector	Sector: 016 Public Administration Sector Policy (if applicable) No
5 Vote Description	050 State Residences

Figure 76: Project proposal file

### 5.8.18 Web-Based Submission

This is a web based loading function. It loads a Project Template Proposals and Quarterly Progress Reports to the PSIP Database. Open the source project proposal or Quarterly Progress Report folder and drag the Proposal or Report in the Auto in folder. The project then registers automatically.

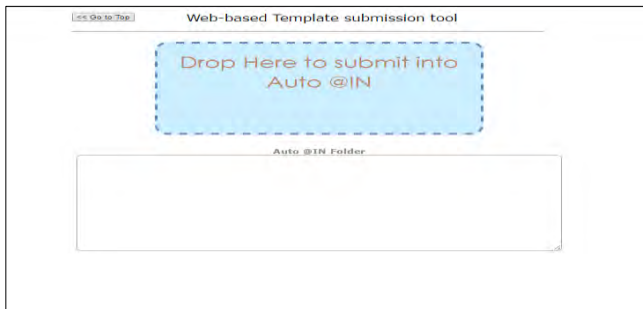
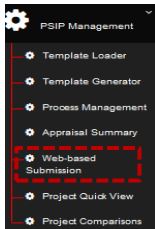
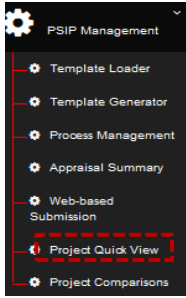


Figure 77: Web based data submission screen

### 5.8.19 Project Quick View

All projects status can be viewed for current year and proposed next fiscal year, you can also view if the Quarterly Progress Report has been submitted or not by selecting the year and vote. Projects can be viewewed per vote by selecting on the vote list.



[Go to Menu](#)

### Project Quick View

Total Project count: 305    Quarterly Report count: 48    ( Note:   = Has Logframe )

Proposal FY     Quarterly Report FY     Vote

**050 - State Residences [4]**

No.	Proposal FY2017/18	QT Report FY2016/17	Status FY2016/17	Applied Status FY2017/18	Project Code	Project Title
1	Proposal		ONGOING	ONGOING	1100	Construction and Rehabilitation of State Houses and State Lodges
2	Proposal		ONGOING	ONGOING	1453	Construction of Security Fence at Kamuzu and Sanjika Palaces
3	Proposal		PENDED	ONGOING	1456	Rehabilitation of Roads and Drive Ways at State Residences
4	Proposal		PENDED	ONGOING	1457	Replacement and Rehabilitation of Plants and Equipment at State Residences

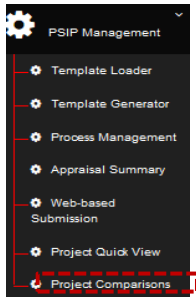
**070 - The Judiciary [3]**

Figure 78: Project Quick View

### 5.8.20 Project Comparison

A project can be compared in regard of the fiscal year, performance, period of implementation. etc.

- (1) To compare project, click on project comparison submenu



- (2) The click button for project comparison navigates to a new window
- (3) Select vote of choice and select project and fiscal years upon which comparison is made.

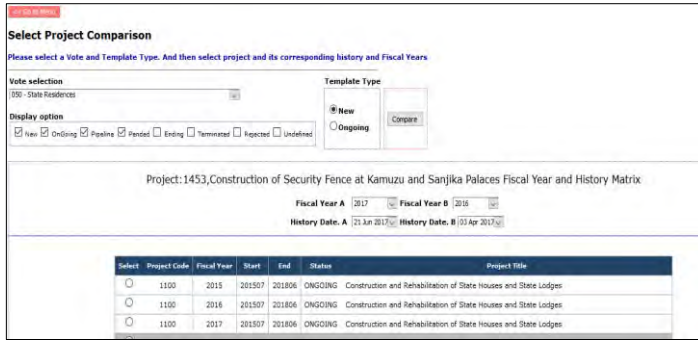
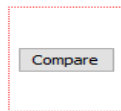


Figure 79: Project comparison screen

(4) Upon selecting the vote, the status and fiscal year click on compare.



(5) Upon the click on the compare button it navigates to a new window with a list of where the comparisons are made

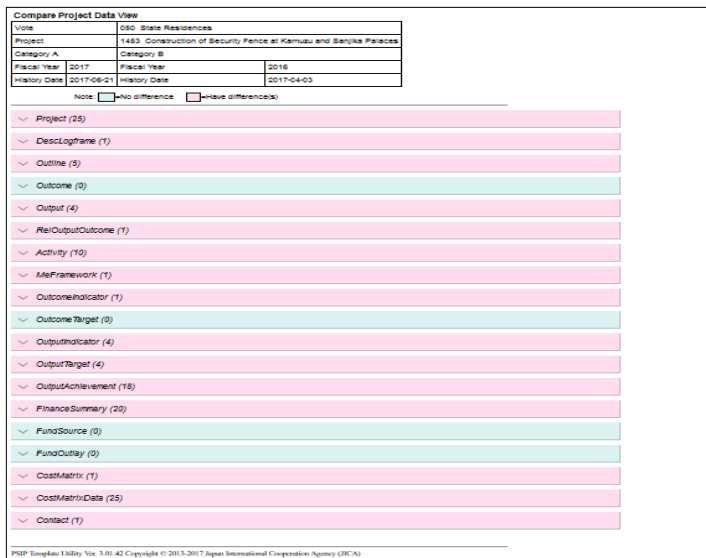


Figure 80: Project data view

(6) Click on any to check the comparisons. E.g. output comparison.

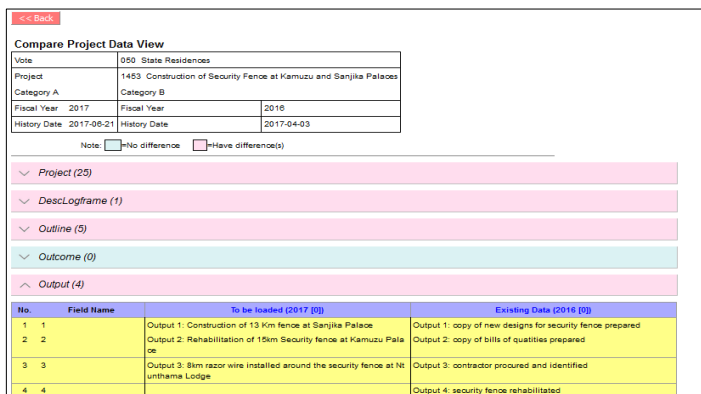
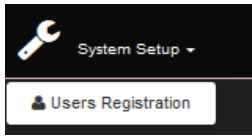


Figure 81: Project data view

## 6. System Setup

### 6.1 User Registration (PSIP/Admin Only)

To view the user registration, click on the “system set up” and click user registration submenu.



(1) This captures all registered users.

The screenshot shows a web interface titled 'Registered Users list'. It includes a 'Create a new entry' button, export options (Copy, CSV, Excel, PDF, Print), a 'Show 100 entries' dropdown, and a search box. Below is a table with the following data:

No	Login ID	First name	Last name	Role	Vote code	Status	Gender	Position	Email1	Tel1	Cell1	Last login	Login count	Actions
1	132739	Edwin	Howahowa	ROLE_USER	330	Enable	M				0996409972			show
2	14MAY1975	Lazarus	Maunda	ROLE_USER	276	Enable			maundalaz@yahoo.com	01524500	0999318099			show
3	@annies3	IAN	CHADZA	ROLE_USER		Enable								show
4	Aaronkalua	Aaron	Kalua	ROLE_PSIP	270	Enable	M					2016-09-16 10:38:45	5	show
5	aaronzuze	Moses	Zuze	ROLE_USER	120	Enable			zuzeaaron@yahoo.com		0888 431995			show
6	absalommwamlima	Absalom	Mwamlima	ROLE_USER	350	Enable	M	STATISTICIAN	rannexmwamlima@gmail.com	0212959360	0999151166	2016-09-22 09:22:10	6	show
7	achimango	julius	chimango	ROLE_USER	250	Enable	M	Works Officer	achimango72@yahoo.com.all	01536300	0999609759	2016-09-15	3	show

Showing 1 to 100 of 504 entries. Page navigation: Previous 1 2 3 4 5 6 Next

Figure 82: Registered PSIP database users

(2) If you click on the Login Id and Show button in the action Column, it navigates you to the form filled by the user.

This screenshot is identical to Figure 82 but highlights the 'Login ID' 'Aaronkalua' and the 'show' button in the 'Actions' column with red arrows.

Figure 83: Registered users

- (3) To create a new entry, click on the “Create new entry” this navigates you to a blank format.

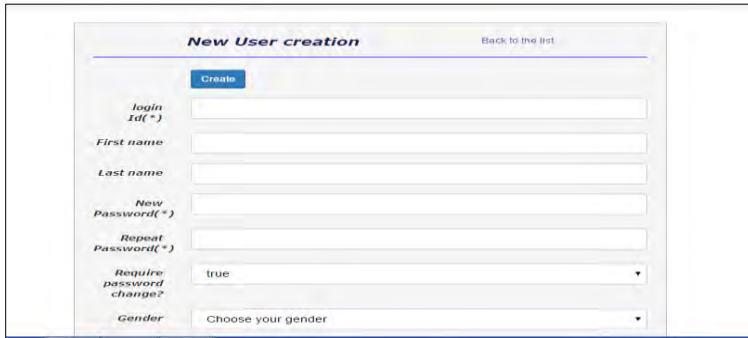


Figure 84: user account creation screen

## 6.2 PSIP Admin Tool

This shows Master data for PSIP Database maintenance

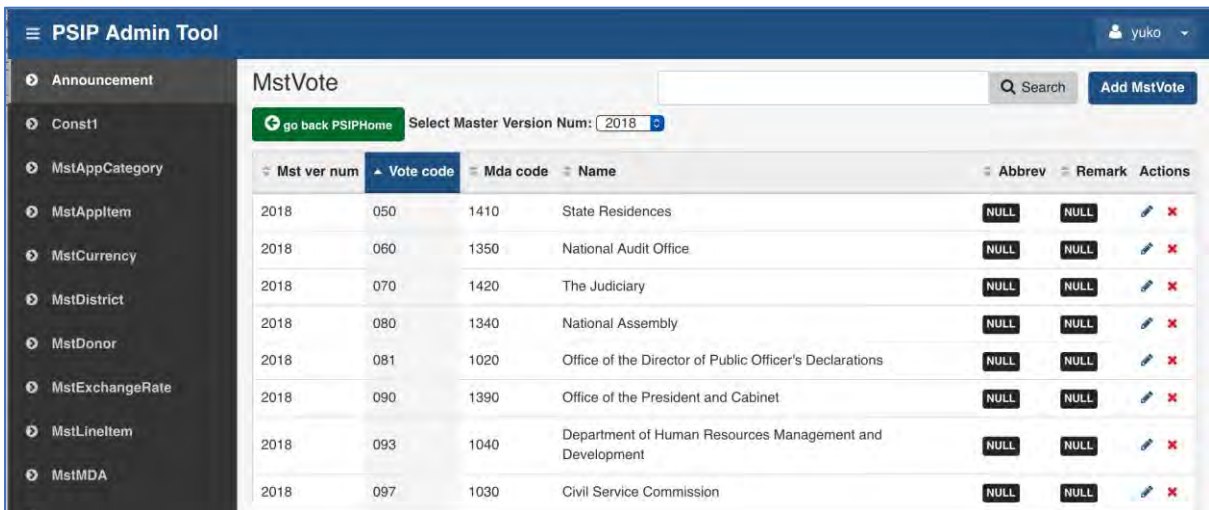


Figure 85: Master data screen

The dropdown list for Master Version Number for all the master data which name starts with “Mst” is displayed. As a default, the current year’s master version is selected and the specified master data is shown on the list.

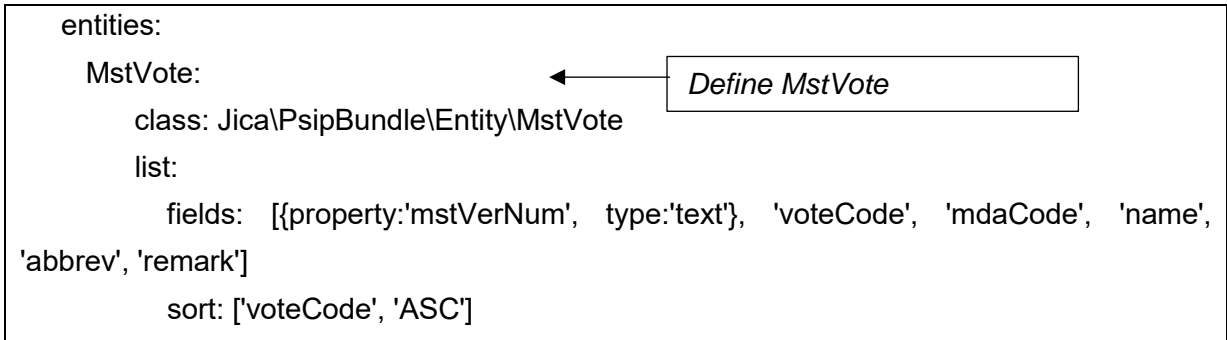
On the left menu the master names are listed. They are configured in the Symfony config file;

```
psips/app/config/config.yml
```

[example of configuration]

```
easy_admin:
  design:
    menu:
      - { entity: 'MstVote', default = true}
```

Show menu for MstVote



### 6.2.1 Template Generator Batch

This tool generates Excel templates for specified F/Y. Select/set the items (Fiscal year, Destination, Deadline), select template type and status. The system will generate all the Excel Template for specified projects. The default settings are just fit for full set of Templates/Forms generation. In normal case, any change from default settings are needed and the expected action is to press [Submit] button.

[<< Go to Menu](#)

## Generate Project Forms (Batch)

Adjust below conditions and press [Submit] button.

Last template generation: 14 Aug 2017 22:35 (Result: Success)

---

**1. Fiscal Year**

Default FY2018/19  
 Change FY

**2. Destination directory**

Default [/home/psip/public\\_html/psip/2018-19](#)  
 Change

**3. Submission Deadline**

Default 31-Aug-2017  
 Change

**4. Templates to be generated**

**New Project Proposal for FY2018/19**

Project status in FY2017/18  
 New  Ongoing  Ending  Pipeline  Pended

**Ongoing Project Proposal for FY2018/19**

Project status in FY2017/18  
 New  Ongoing  Ending  Pipeline  Pended

**Quarterly Progress Report for FY2017/18**

Project status in FY2017/18  
 New  Ongoing  Ending  Pipeline  Pended

**PFM-IT for FY2017/18**

Project status in FY2017/18  
 New  Ongoing  Ending  Pipeline  Pended

Figure 86: Template Generator Batch

After pressing [Submit] button, the screen is automatically changed to “Generate Project Forms (Monitor)”. The screen indicates the generation job summary and its progress with a progress bar as seen below.




[<< Go to Menu](#)

## Generate Project Forms (Monitor)

The Template generation job is ongoing as below. Press [Refresh] to update the progress.

Job ID - Job Name	19 - TEMPGEN
Description	Template generation job on 17 August 2017, 15:25:06
Date & Time	[Start] 17 Aug 2017 15:25
Steps: Done / Total (%)	500 / 1036 (48.3% completed)
Status	In Progress
Result	

 Refresh

---

PSIP Template Utility Ver. 4.00.16 Copyright © 2013-2017 Japan International Cooperation Agency (JICA)

Figure 87: Template Generator Batch

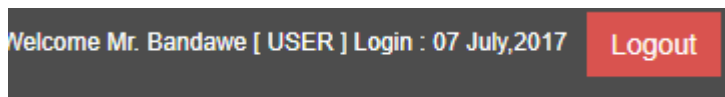
### 6.3 PSIP Operation (IMPORTANT)

The PSIP Operation is a table where the PSIP base FY is controlled. When Circular #1 is released and the FY is changed to New Year, you have to change the Current year of this table. The PSIP Database system refers this year to determine the current FY.

PspOperation							Search	Add PspOperation
Current year	Psip status	Ts	Log id	ID	Actions			
2017	L	September 9, 2016 15:43	2,625	1	✎ ✖			

### 6.4 Logout

A connection called a session is established each time a user login. To terminate that session the user must logout of the system.



## 7. User Privileges

### 7.1 User Roles and privileges

Some restrictions have been placed on the user accounts, which will vary according to the type of user group and the stage of the Public Sector Investment Programming (PSIP) cycle. The access permissions are as follows.

**Table 4: Roles and privileges**

User Group	Rolls and privileges	Targets
Guests	Guest user can view proposal submissions but cannot download nor view the submission status.	Registered users interested to see the PSIP information including donors
MDA Users	MDA users can view proposal data and download, but no right to edit documents.	MDA users registered to database
PSIP Unit	PSIP officers can edit all Ministries' information such as the project status or appraisal status	The PSIP Officers
Administrator	Administrators will be able to edit all data and manage accounts, database, etc.	IT Officials assigned to maintain the system and database.

## 7.2 User access authorization

The access control to the Menu and Pages are introduced as shown in the following table.

**Table 5: User access authorization**

Menu	Submenu	Guest/MDA users	PSIP Unit	Admin	Remark
PSIP Proposal	Submission Status	View except Guest	View	View	
	Project Details	View	View/Edit	View/Edit	
	Show Summary	View	View	View	Excel download allowed to all
Project Status	Status & Approved Budget	View	View/update status	View/update status	Display Approved budget and status
Project Performance	Quarterly Progress Report list	View	Edit Extension Request	Edit Extension Request	
	Quarterly Progress Report detail	View	View	View	
Reports	Project List	View	View	View	Excel download to all allowed

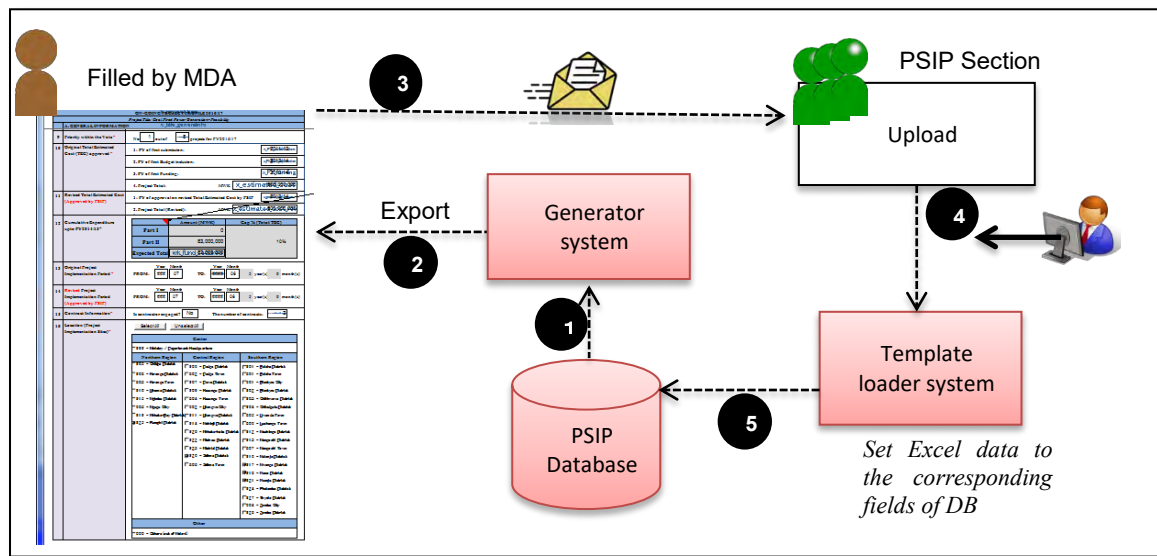
Menu	Submenu	Guest/MDA users	PSIP Unit	Admin	Remark
Download Forms	New/ Pipeline/ On-going/QT/ PFM-IT	Download except Guest	Download	Download	
Information	Announcement/ News Letter	View	View	View	
PSIP Tools	Loader/Generator/Process Management/Appraisal Summary/Web based Submission/ Project Quick View	N/A (not shown)	Right to execute	Right to execute	
System Setup	Users (Users registration management)	N/A (not shown)	View	All rights to edit/delete	All user master Database Maintenance
	PSIP Admin Tool	N/A (not shown)	N/A (not shown)	All rights to edit/delete	All master Database Maintenance
	Template Generator(Batch)	N/A (not shown)	N/A (not shown)	Can generate	

## 8. Proposal submission and PSIP Process

### 8.1 Proposal Submission flow

Most information of the Proposal and Quarterly Report is “Read only” with a few editable areas in the proposal on the PSIP Database. The original Project Proposal and Quarterly Report are filled in Excel file which MDA users send to the PSIP unit by mail. The PSIP Unit is responsible for the registration of the sent information into the database. If MDA users need to modify the information, they change the contents of the Excel Template and send it again to the PSIP unit.

The following figure represents the proposal submission flow.



**Figure 88: Proposal Submission flow**

- 1) The proposal information already registered to the database is retrieved from the system (in case of On-going).
- 2) The retrieved data is exported to the corresponding fields of Excel Template (in case of On-going).
- 3) After MDA users fill in the information in Excel Template, they send it to PSIP Unit.
- 4) At PSIP Unit, the Excel Template is loaded to the system.
- 5) The system finally registers the proposal information to the PSIP Database.

## 8.2 During PSIP Process

As described above, MDA users can create information by Excel Template for New and On-going Projects after the announcement of Circular No1 and for a certain period until the project submission deadline. If a user needs to change project details of the already submitted project, it is required to contact the PSIP Unit and justify their reason for change. Changing project life span will need authorization by way of Extension Request from MFEPD and hence data revision will be approved by MFEPD.

The MDA users will be given about one month to prepare their proposals. During this period, the PSIP Unit will give them technical assistance on how to fill in the template where necessary. To secure enough time for the proposal appraisal by the PSIP Unit, the proposals must be submitted on time.

## 9. Questions and Answers

Below is a list of questions that a user might ask. If MDA users encounter any problem beyond their control, they will contact the PSIP Unit on **01 788 888 (Ext: 150/164) or [psipsubmissions@gmail.com](mailto:psipsubmissions@gmail.com)**.

### 9.1 System

#### Q1. I cannot connect to the Intranet Database

**A:** Firstly, confirm that you are on the GWAN network with your Network Administrator. If you are on the GWAN network, check if your network cable is properly connected. If your cable is connected, check if there is a connection by looking for an icon of two computers at the bottom right corner of your screen (in Windows 7).

If you are connected and still cannot access the database, call the PSIP Unit to inform that the database is not connected.

**Q2. My connection is slow (Only for GWAN Users)**

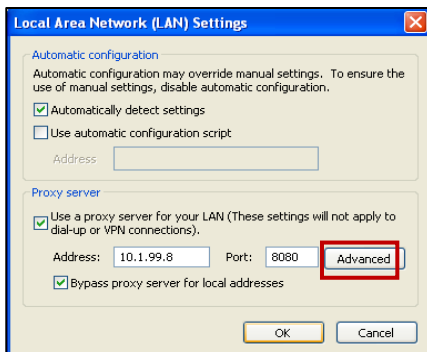
**A:** On the GWAN Network each command goes via the Proxy Server. This sometimes slows the speed with which the user accesses the database.

The users can bypass the GWAN Proxy server for the PSIP Database which allows them a direct connection to the database. This will also enable them to access to the database even when the Proxy Server is down. To bypass the Proxy you can configure the following settings (in case of Internet Explorer):

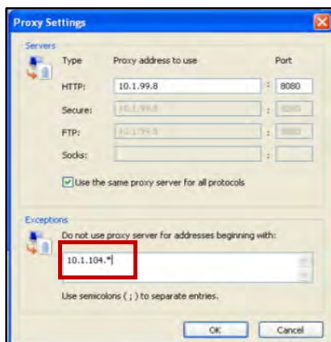
- 1) Go to Tools on the Internet Explorer menu bar.
- 2) On the Drop down list select Internet Options.
- 3) From the window click on Connections on the tabs at the top of the window
- 4) Click on LAN Settings on the window



- 5) For the GWAN connection, you may have already proxy setting with the proxy IP address.
- 6) Click on Advanced.



- 7) Type "10.1.99.\*" on the Exceptions box under "Do not use proxy for addresses beginning with:" which will allow you to bypass the proxy Server.

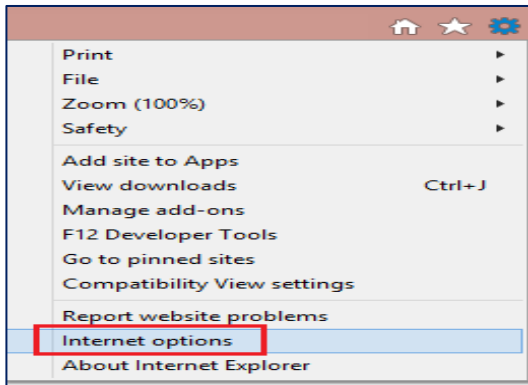


- 8) Click **OK** on the three pages to activate the settings.

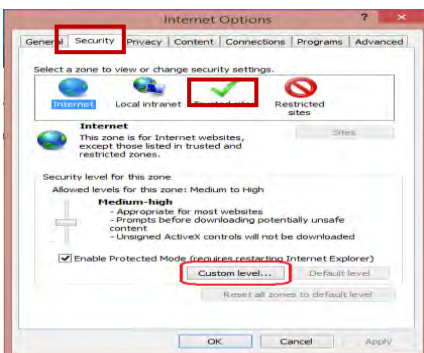
### Q3. How can I enable JavaScript in internet explorer

**A:** The system requires JavaScript enabled since in some pages the JavaScript function is applied. The following procedure explains how to enable JavaScript in Internet Explorer.

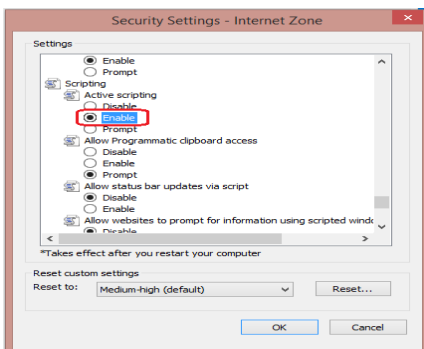
- 1) On the web browser menu, click Tools or the "Tools" icon (which looks like a gear), and select Internet Options.



- 2) When the "Internet Options" window opens, select the Security tab.
- 3) On the "Security" tab, make sure the Internet zone is selected, and then click on the "Custom level..." button



- 4) In the Security Settings – Internet Zone dialog box, click Enable for Active Scripting in the Scripting section.



- 5) When the "Warning!" window opens and asks, "Are you sure you want to change the settings for this zone?" select Yes.
- 6) Click OK at the bottom of the Internet Options window to close the dialog.
- 7) Click the Refresh button to refresh the page and run scripts.

## 10. Definitions and acronyms

Below is a list of definitions, acronyms and abbreviations that have been used in this document.

### 10.1 Definitions

**Table 6: Definitions and Acronym**

Word	Definition
MySQL	An open source database engine used to manage data in a relational database management system.
PHP	Is a scripting language used to write web applications.
User	A person who makes use of a system.
Database	Consists of an organized collection of data for one or more multiple uses.

### 10.2 Acronyms and abbreviations

**Table 7: Acronyms and abbreviation**

Acronyms and abbreviations	Definitions
Admin	Administrator of the system
CEPSIP	Capacity Enhancement in Public Sector Investment Programming
DAS	Development Assistance Strategy
GWAN	Government Wide Area Network
JICA	Japan International Cooperation Agency
MFEPD	Ministry of Finance, Economic Planning and Development
PSIP	Public Sector Investment Program
URL	Unified Resource Locater



## 11. Annexes

### 11.1 Annex1: Registration Form

PSIP Database User Account Registration Form	
If users need an account they are required to fill in the form bellow and hand it in to the PSIP Unit.	
Date:	
User ID: (Up to 20 characters)	
First Name:	
Last Name:	
Ministry:	
Position:	
Office Location:	
P.O Box:	
E-mail 1:	
E-mail 2:	
TEL 1:	
TEL 2:	
Fax:	
Cell 1:	
Cell 2:	
Signature	

#### Official Use only

<b>Approved:</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No    [Reason: _____ ]
Approved Date	
Initial Password:	
Approved By:	
Registered By:	
Signature:	



Government of Malawi

# **Public Sector Investment Programme (PSIP)**

## **PSIP DATABASE SERVER SETUP MANUAL**

The Ministry of Finance, Economic Planning and Development  
Department of Economic Planning and Development  
P. O. Box 30136  
Lilongwe 3, Malawi

August 2017

**Supported by**

**Project for Capacity Enhancement in Public Sector Investment Programming II  
(CEPSIP II)**

**Japan International Cooperation Agency**



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# 1 Server Structure

A server consists of 1 physical server and 2 virtual servers. The 3 servers concurrently work. The resource allocation and network configuration are shown in next figures.

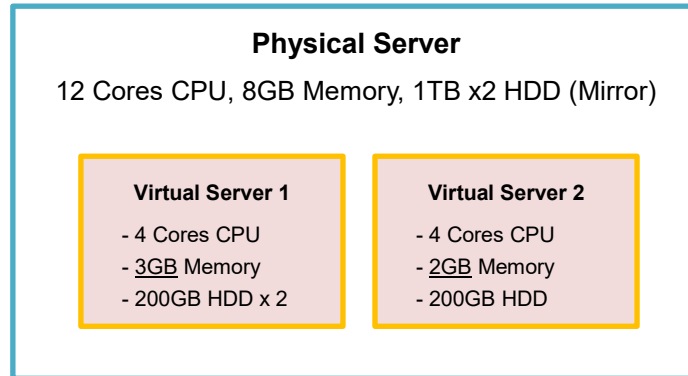


Fig. 1 Server structure and resource allocation

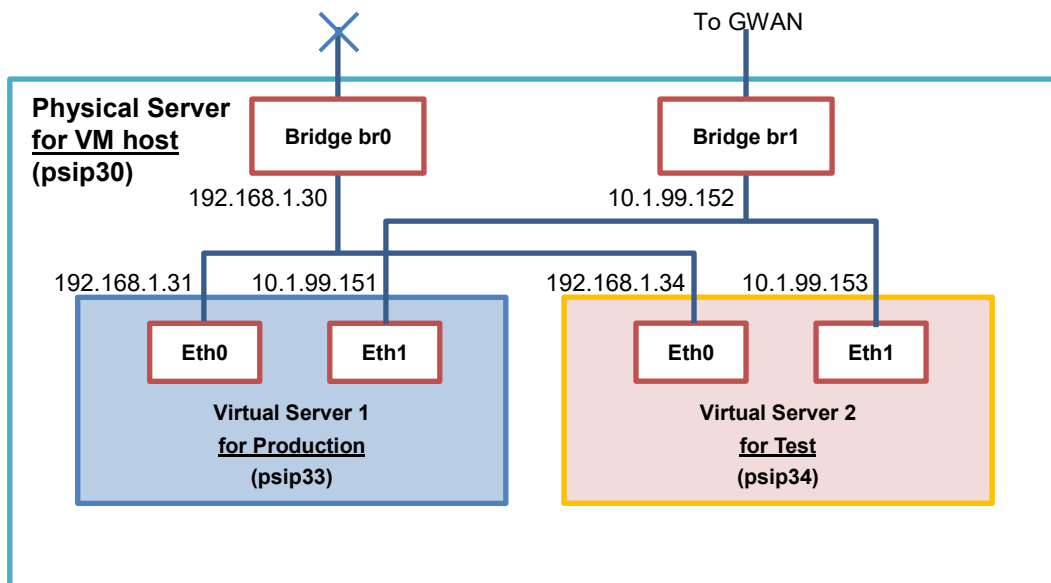


Fig. 2 Network configuration of the server

# 2 Server Configuration

## 2.1 Install CentOS for the host server of Virtual machines

Install CentOS 6 or 7 in following condition. Note that the latest distribution has to be selected (6.9 or 7.3 as of 10-Apr-2017).



No.	Item	Configuration
1	Language Support	English (US)
2	Network & Host Name	IP Address = 192.168.1.30 Subnet mask = 255.255.255.0 Gateway (Default route) = 192.168.1.1 DNS1 = 192.168.1.1 Host name = psip30
3	Date & Time	Africa / Johannesburg, Network time = ON
4	Software Selection	Minimal Install
5	Installation Destination	/boot 500MB / Rest of space (About 900GB)
6	Kdump	Disable
7	User creation	psip
8	Password	Set root password and psip user password accordingly

The actual installation procedure of CentOS itself is skipped. Please refer to other sources. Following steps are supposed to be performed after the completion of CentOS installation.

## 2.2 Configure Physical Server (psip30)

### 2.2.1 Installing NTFS file system driver

NTFS is a filesystem of Windows. It is needed because the backup device (External USB HDD) is formatted as NTFS. The NTFS filesystem driver is not included in CentOS, therefore it must be obtained from other software contribution society named “epel”.

<Obtain yum repository for epel>

```
[root@psip30 ~]# wget
http://ftp.iij.ad.jp/pub/linux/fedora/epel/6/x86_64/epel-release-6-8.noarch.rpm
[root@psip30 ~]# rpm -ivh epel-release-6-8.noarch.rpm
warning: epel-release-6-8.noarch.rpm: Header V3 RSA/SHA256 Signature, key ID 0608b895: NOKEY
Preparing...      ##### [100%]
 1:epel-release    ##### [100%]
[root@psip30 ~]# cd /etc/yum.repos.d/
[root@psip30 yum.repos.d]# vi epel.repo
```

```
enabled=0
↓
enabled=1
```

<Install NTFS filesystem driver>

```
[root@psip30 yum.repos.d]# yum -y install ntfs-3g
```

```
:
```

```
Installed:
```

```
ntfs-3g.x86_64 2:2011.4.12-5.el6
```

```
Complete!
```

<Disable epel repository>

```
[root@psip30 yum.repos.d]# mv epel.repo epel.repo-disable
```

```
[root@psip30 yum.repos.d]# mv epel-testing.repo epel-testing.repo-disable
```

## 2.2.2 Copy CentOS DVD image from USB external disk and mount the image

As a preparation, the CentOS installation DVD image file (i.e. CentOS-6.5-x86\_64-bin-DVD1.iso) has to be copied into the server. It is used for the source of following installations.

In the next steps, the DVD image is supposed to be copied from USB memory. Insert the USB memory into the server's USB port and follow next steps.

```
[root@psip30 yum.repos.d]# cd
```

```
[root@psip30 ~]# mount -t ntfs /dev/sdb1 /mnt/
```

```
[root@psip30 ~]# cp /mnt/CentOS6.5-iso/CentOS-6.5-x86_64-bin-DVD1.iso .
```

```
[root@psip30 ~]# umount /mnt/
```

```
[root@psip30 ~]# mkdir /usr/local/share/iso
```

```
[root@psip30 ~]# mv CentOS-6.5-x86_64-bin-DVD1.iso /usr/local/share/iso
```

```
[root@psip30 ~]# mkdir /mnt/centos-iso
```

```
[root@psip30 ~]# mount -o loop -rt iso9660 /usr/local/share/iso/CentOS-6.5-x86_64-bin-DVD1.iso /mnt/centos-iso
```

## 2.2.3 Modify reference location of yum command from Internet to local Media

The installation source of CentOS is set to official Internet site but due to bad Internet connectivity, the default source must be changed to the mounted DVD image in the previous step.

```
[root@psip30 ~]# cd /etc/yum.repos.d/
```

```
[root@psip30 yum.repos.d]# vi CentOS-Media.repo
```

<Change baseurl definition>

```
baseurl=file:///mnt/centos-iso/
```

```
#baseurl=file:///media/CentOS/
```

```
# file:///media/cdrom/
```

```
# file:///media/cdrecorder/
```

```
# file:///media/CentOS_6.5_Final/
```

```
[root@psip30 yum.repos.d]# mv CentOS-Base.repo CentOS-Base.repo-disable
```

## 2.2.4 Install bridge utility and configure br0 and br1

To allow virtual servers commonly share the 2 networks – 192.168.1.x and 10.1.99.x, two bridges have to be installed and configured in the VM host server.

```
[root@psip30 ~]# yum install bridge-utils
Loaded plugins: fastestmirror, refresh-packagekit, security
Loading mirror speeds from cached hostfile
 * c6-media:
Setting up Install Process
Package bridge-utils-1.2-10.el6.x86_64 already installed and latest version
Nothing to do
```

## 2.2.5 Configure network interface to insert a bridge

The purpose is to disable Network Manager and use hard coding configuration.

```
[root@psip30 ~]# cd /etc/sysconfig/network-scripts/
[root@psip30 network-scripts]# mkdir backup
[root@psip30 network-scripts]# cp -p ifcfg-em1 backup/
[root@psip30 network-scripts]# cp ifcfg-em1 ifcfg-br0

[root@psip30 network-scripts]# service NetworkManager stop
Stopping NetworkManager daemon: [OK]
[root@psip30 network-scripts]# chkconfig NetworkManager off
```

Create or edit following files.

### (1) ifcfg-em1

```
DEVICE=em1
TYPE=Ethernet
ONBOOT=yes
NM_CONTROLLED=no
BOOTPROTO=none
HWADDR=C8:1F:66:E3:85:1E ← this is varying depending on the hardware
BRIDGE=br0
```

```
DEFROUTE=yes
IPV4_FAILURE_FATAL=yes
IPV6INIT=no
NAME="System em1"
```

### (2) ifcfg-br0

```
DEVICE=br0
TYPE=Bridge
DELAY=0
ONBOOT=yes
NM_CONTROLLED=no
BOOTPROTO=none
IPADDR=192.168.1.30
PREFIX=24
GATEWAY=192.168.1.1
DNS1=192.168.1.1
DEFROUTE=yes
IPV4_FAILURE_FATAL=yes
IPV6INIT=no
NAME="System br0"
```

### (3) ifcfg-em2

```
DEVICE=em2
TYPE=Ethernet
ONBOOT=yes
NM_CONTROLLED=no
BOOTPROTO=none
HWADDR= C8:1F:66:E3:85:1F ← this is varying depending on the hardware
BRIDGE=br1
DEFROUTE=yes
IPV4_FAILURE_FATAL=yes
IPV6INIT=no
NAME="System em2"
```

### (4) ifcfg-br1

```
DEVICE=br1
TYPE=Bridge
DELAY=0
```

```
ONBOOT=yes
NM_CONTROLLED=no
BOOTPROTO=none
IPADDR=10.1.99.152
PREFIX=24
GATEWAY=10.1.99.251
DNS1=10.1.99.23
DNS2=10.1.99.24
#DEFROUTE=yes
IPV4_FAILURE_FATAL=yes
IPV6INIT=no
NAME="System br1"
```

```
[root@psip30 network-scripts]# service network restart
```

```
Shutting down interface br0: [ OK ]
Shutting down interface br1: [ OK ]
Shutting down interface em1: [ OK ]
Shutting down interface em2: [ OK ]
Shutting down loopback interface: [ OK ]
Bringing up loopback interface: [ OK ]
Bringing up interface em1: [ OK ]
Bringing up interface em2: [ OK ]
Bringing up interface br0: Determining if ip address 192.168.1.30 is already in use for device
br0... [ OK ]
Bringing up interface br1: Determining if ip address 10.1.99.152 is already in use for device
br1... [ OK ]
```

```
[root@psip30 network-scripts]# brctl show
```

bridge name	bridge id	STP enabled	interfaces
br0	8000.c81f66e3851e	no	em1 vnet0 vnet2
br1	8000.c81f66e3851f	no	em2 vnet1 vnet3
virbr0	8000.525400107ad1	yes	virbr0-nic
virbr1	8000.5254004aa953	yes	virbr1-nic

## 2.2.6 Configure firewall

```
[root@psip30 network-scripts]# cd ..
```

```
[root@psip30 sysconfig]# vi iptables
```

<Add a lines are highlighted>

```
# Firewall configuration written by system-config-firewall
# Manual customization of this file is not recommended.
```

```

*filter
:INPUT ACCEPT [0:0]
:FORWARD ACCEPT [0:0]
:OUTPUT ACCEPT [0:0]
-A INPUT -m state --state ESTABLISHED,RELATED -j ACCEPT
-A INPUT -p icmp -j ACCEPT
-A INPUT -i lo -j ACCEPT
-A INPUT -m state --state NEW -m tcp -p tcp --dport 443 -j ACCEPT
-A INPUT -m state --state NEW -m tcp -p tcp --dport 22 -j ACCEPT
-A INPUT -m state --state NEW -m tcp -p tcp --dport 80 -j ACCEPT
# For SOCOMEC USB Monitor LocalView 2015-02-06 Ishikawa
-A INPUT -m state --state NEW -m tcp -p tcp --dport 8080 -j ACCEPT
# For OpenManage Server Administrator 2017-08-15 Ishikawa
-A INPUT -m state --state NEW -m tcp -p tcp --dport 1311 -j ACCEPT
-I FORWARD -m physdev --physdev-is-bridged -j ACCEPT
-A INPUT -j REJECT --reject-with icmp-host-prohibited
-A FORWARD -j REJECT --reject-with icmp-host-prohibited
COMMIT

```

```
[root@psip30 sysconfig]# service iptables restart
```

### 2.2.7 Adjust sshd configuration for faster login

```
[root@psip30 sysconfig]# cd /etc/ssh
```

```
[root@psip30 ssh]# vi sshd_config
```

<Modify below>

```

GSSAPIAuthentication no
:
UseDNS no

```

### 2.2.8 Configure /etc/fstab for permanent mount of DVD image

```
[root@psip30 sysconfig]# cd /etc/
```

```
[root@psip30 sysconfig]# vi fstab
```

<Add 2 lines>

```

#
# /etc/fstab
# Created by anaconda on Wed Oct 22 16:08:27 2014
#

```

```
# Accessible filesystems, by reference, are maintained under '/dev/disk'
# See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for more info
#
/dev/mapper/vg_psis10-LogVol01 / ext4 defaults 1 1
UUID=3abdb7e8-022b-492f-b839-298ba496ef1c /boot ext4 defaults 1 2
/dev/mapper/vg_psis10-lv_swap swap swap defaults 0 0
tmpfs /dev/shm tmpfs defaults 0 0
devpts /dev/pts devpts gid=5,mode=620 0 0
sysfs /sys sysfs defaults 0 0
proc /proc proc defaults 0 0
/usr/local/share/iso/CentOS-6.5-x86_64-bin-DVD1.iso /mnt/centos-iso iso9660
loop,ro,auto 0 0
/dev/sdb1 /mnt/ext-hdd ntfs noauto 0 0
```

The last line is for external backup disk. The setting and usage of the backup scheme are explained in Maintenance Manual/

### 2.2.9 Start Virtualization Manager

<If you haven't install virtual machine related packages, do next>

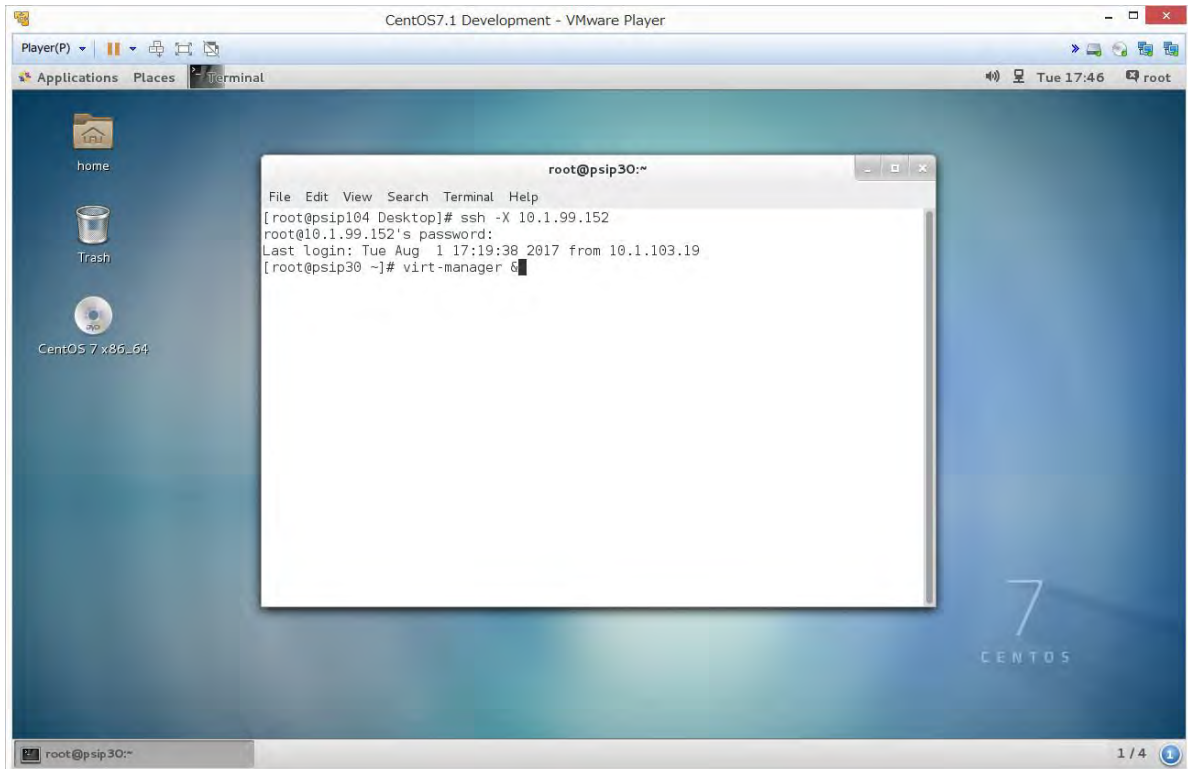
```
[root@psip30 ~]# yum -y groupinstall "Virtualization" "Virtualization Client" "Virtualization Platform" "Virtualization Tools"
```

```
[root@psip30 ~]# virt-manager&
```

[Note]

The virtual machine manager “virt-manager” is an X Window client GUI tool. Therefore this command has to be run on X window server environment. Since psip30 was installed in “Minimal” configuration, it does not contain X Window system modules and therefore no way to use virt-manager directly. Instead of using directly, you can use your PC by running another Linux with X Window server under VMWare Player (or Workstation). If your Linux starts with text based (run level = 3), you can invoke X Window system by typing a command “startx”.

You will see next screen.



To connect psip30 and invoke virt-manager – but the screen appears on your local PC, do followings.

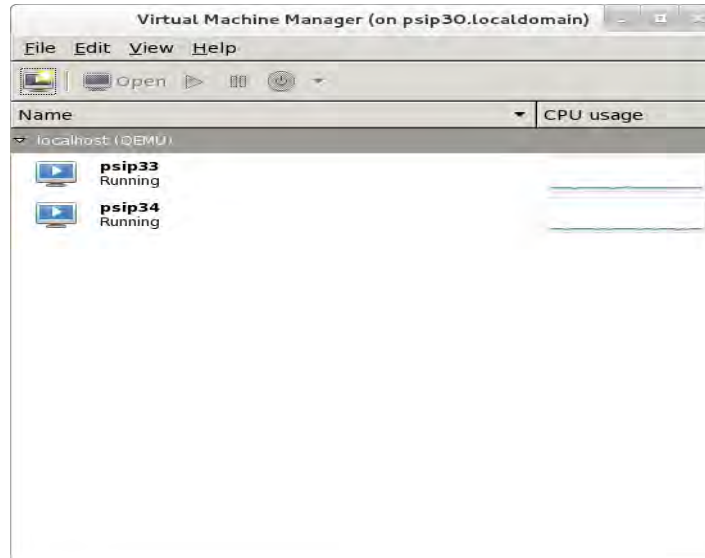
<Open terminal by clicking right button and choosing “open in terminal”>

<Type as follows in the terminal>

```
[root@psipxx ~]# ssh -X root@10.1.99.152  
root@10.1.99.152's password:  
[root@psip30 ~]# virt-manager&
```

You will see next window. The sample shows that there are 2 virtual machine images are running (psip33 and psip34). You can create another virtual machine by clicking left side icon named “Create a new virtual machine”.





The explanation to create new virtual machine is not described in this document. Please check other sources.

To proceed to next section, you are required to create virtual machines by assigning resources defined in Fig.1

### 2.3 Install CentOS7 to virtual machine 1 (psip33)

Install CentOS 7.x from DVD ISO image with “Minimal” installation option. This explanation is skipped. Create a virtual machine using virt-manager as explained above by allocating the resources (memory, disks and so on) as specified in Fig.1. Note that there are 2 virtual disks, one is for CentOS and the other is for samba storage. The detail configuration of samba storage is explained in Maintenance Manual.

After completing the installation, proceed to following steps.

#### 2.3.1 Set Backspace key as backspace

```
[root@psip33 ~]# stty erase ^H
[root@psip33 ~]# cd
[root@psip33 ~]# vi .bashrc
```

<append next line to the bottom>

```
stty erase ^H
```

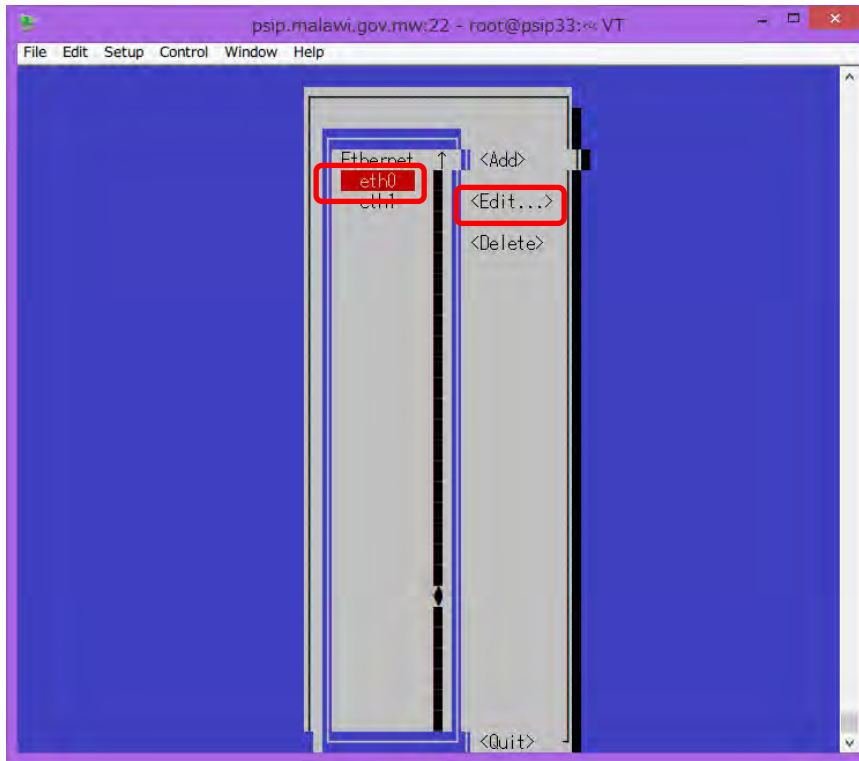
#### 2.3.2 Configure Network

<Use NetworkManager>

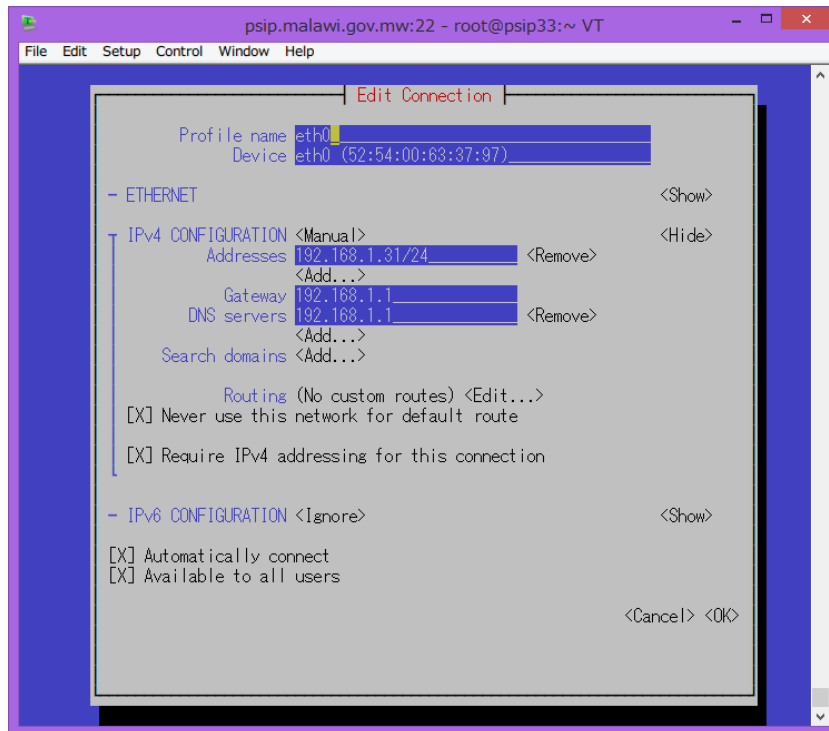
```
[root@psip33 ~]# nmtui
```

<Refer to following screens>

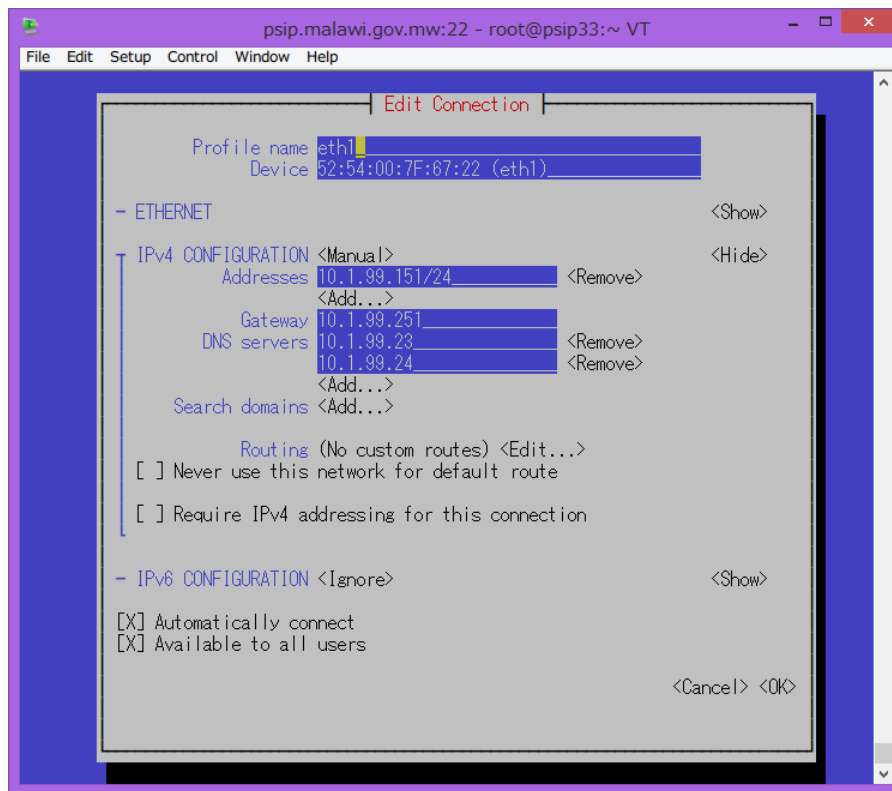
### Interface selection



### eth0 configuration



## eth1 configuration



After saving the changes restart network service.

```
[root@psip33 ~]# systemctl restart network
```

### 2.3.3 Mount DVD iso image

```
[root@psip33 ~]# mkdir /usr/local/share/iso
```

<Transfer DVD image file to /usr/local/share/iso using WinSCP or other methods>

<The file name should be: CentOS-7.1-x86\_64-DVD-1503-01.iso>

(This may be changed according to the package version)

```
[root@psip33 ~]# mkdir /mnt/centos-iso
```

```
[root@psip33 ~]# mount -rt iso9660 -o loop
```

```
/usr/local/share/iso/CentOS-7.1-x86_64-DVD-1503-01.iso /mnt/centos-iso/
```

### 2.3.4 Create /etc/yum.repos.d/CentOS-Media.repo and Disable Internet source of yum

```
[root@psip33 ~]# cd /etc/yum.repos.d
```

```
[root@psip33 yum.repos.d]# vi CentOS-Media.repo
```

## Next contents

```
[c7-media]
name=CentOS-$releasever - Media
baseurl=file:///mnt/centos-iso/
gpgcheck=1
enabled=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7
```

```
[root@psip33 yum.repos.d]# mv CentOS-Base.repo CentOS-Base.repo-disable
```

### 2.3.5 Add packages

<To use ifcondig>

```
[root@psip33 ~]# yum install net-tools
```

<To use emacs>

```
[root@psip33 ~]# yum install emacs-nox
```

<To use zip, unzip>

```
[root@psip33 ~]# yum install zip
```

```
[root@psip33 ~]# yum install unzip
```

<To use yum-config-manager>

```
[root@psip33 ~]# yum install yum-utils
```

<To use wget>

```
[root@psip33 ~]# yum install wget
```

<For MySQL 5.6>

```
[root@psip33 ~]# yum install
```

```
http://dev.mysql.com/get/mysql-community-release-el7-5.noarch.rpm
```

```
[root@psip33 ~]# yum install mysql
```

```
[root@psip33 ~]# yum install mysql-server
```

<For PHP 5.6>

```
[root@psip33 ~]# rpm -Uvh
```

```
http://ftp.riken.jp/Linux/fedora/epel/7/x86\_64/e/epel-release-7-5.noarch.rpm
```

```
[root@psip33 ~]# rpm -Uvh http://rpms.famillecollet.com/enterprise/remi-release-7.rpm
```

```
[root@psip33 ~]# yum install --enablerepo=remi --enablerepo=remi-php56 php php-opcache
php-devel php-mbstring php-mcrypt php-mysqlnd php-phpunit-PHPUnit php-pecl-xdebug
php-pecl-xhprof
```

<For java 1.7>

```
[root@psip33 ~]# yum install java-1.7.0-openjdk
```

<For intl --- necessary for Symfony 2>

```
[root@psip33 ~]# yum install libicu
```

```
[root@psip33 ~]# yum install libicu-devel
[root@psip33 ~]# yum install gcc
[root@psip33 ~]# yum install gcc-c++
[root@psip33 ~]# pecl install intl
```

<Others>

```
[root@psip33 ~]# yum -y install samba
[root@psip33 ~]# yum -y install samba-client
[root@psip33 ~]# yum -y install cifs-utils
[root@psip33 ~]# yum -y install mod_ssl
```

### 2.3.6 Configure Apache

```
[root@psip33 ~]# cd /etc/httpd/conf
[root@psip33 conf]# vi httpd.conf
```

```
ServerName localhost:80
:
DocumentRoot "/home/psip/public_html"
:
SetEnvIf Request_URI "web_submit_list\.php" no_log
CustomLog "logs/access_log" combined env=!no_log
:
```

```
[root@psip33 ~]# cd /etc/httpd/conf.d
[root@psip33 conf.d]# vi userdir.conf
```

<Add / Remove '#' symbols>

```
# UserDir disabled          ← Add #

UserDir public_html        ← Remove #

# Options MultiViews Indexes SymLinksIfOwnerMatch IncludesNoExec ← Add #
Options MultiViews SymLinksIfOwnerMatch IncludesNoExec ← Remove "Indexes"
```

```
[root@psip33 conf.d]# vi psip.conf
```

<Create a file>

```
Alias /psips/ "/home/psip/public_html/psips/"
Alias /psip/ "/home/psip/public_html/psip/"
Alias /tload2/ "/home/psip/public_html/tload2/"
```

```
[root@psip33 conf.d]# vi ssl.conf
```

<Modify the file>

```
:
#ServerName www.example.com:443
DocumentRoot "/home/psip/public_html"
ServerName psip.malawi.gov.mw:443

:
#TransferLog logs/ssl_access_log
LogLevel warn
LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\"" ssl_combined
SetEnvIf Request_URI "web_submit_list\.php" ssl_no_log
CustomLog "logs/ssl_access_log" ssl_combined env=!ssl_no_log

:
#SSLCertificateFile /etc/pki/tls/certs/localhost.crt
SSLCertificateFile /etc/pki/tls/certs/star_malawi_gov_mw.crt ← file name depends on the SSL
cert
:
#SSLCertificateKeyFile /etc/pki/tls/private/localhost.key
SSLCertificateKeyFile /etc/pki/tls/private/star_malawi_gov_mw.key ← file name depends on
the SSL cert
:
#SSLCertificateChainFile /etc/pki/tls/certs/server-chain.crt
SSLCertificateChainFile /etc/pki/tls/certs/DigiCertCA.crt ← file name depends on the SSL
cert
:
# compact non-error SSL logfile on a virtual host basis.
#CustomLog logs/ssl_request_log \
# "%t %h %{SSL_PROTOCOL}x %{SSL_CIPHER}x \"%r\" %b"
```

```
[root@psip33 conf.d]# vi https_redirect.conf
```

<Create a file>

```
<ifModule mod_rewrite.c>
    RewriteEngine On
    LogLevel alert rewrite:trace3
    RewriteCond %{HTTPS} off
    RewriteCond %{REMOTE_ADDR} !^(192.168.1.).*$
    RewriteRule ^(.*)$ https://%{HTTP_HOST}%{REQUEST_URI} [R,L]
```

```
</ifModule>
```

```
[root@psip33 conf.d]# systemctl restart httpd
```

### 2.3.7 Configure MySQL

```
[root@psip33 conf.d]# cd /etc
```

```
[root@psip33 etc]# vi my.cnf
```

<Following contents>

```
[mysqld]
#
# Remove leading # and set to the amount of RAM for the most important data
# cache in MySQL. Start at 70% of total RAM for dedicated server, else 10%.
# innodb_buffer_pool_size = 128M
#
# Remove leading # to turn on a very important data integrity option: logging
# changes to the binary log between backups.
# log_bin
#
# Remove leading # to set options mainly useful for reporting servers.
# The server defaults are faster for transactions and fast SELECTs.
# Adjust sizes as needed, experiment to find the optimal values.
# join_buffer_size = 128M
# sort_buffer_size = 2M
# read_rnd_buffer_size = 2M
datadir=/var/lib/mysql
socket=/var/lib/mysql/mysql.sock

# Disabling symbolic-links is recommended to prevent assorted security risks
symbolic-links=0

# Recommended in standard MySQL setup
sql_mode=NO_ENGINE_SUBSTITUTION,STRICT_TRANS_TABLES

innodb_additional_mem_pool_size = 20M
innodb_buffer_pool_size = 512M
innodb_log_buffer_size = 32M

# To prevent an error "Row size too large (> 8126)"
```

```
innodb_file_per_table
innodb_file_format = Barracuda
innodb_file_format_max = Barracuda

skip-character-set-client-handshake
character-set-server = utf8

slow_query_log=1
slow_query_log_file=/var/log/mysql/slow_query.log
long_query_time=1
min_examined_row_limit=1000

# Query log
#general_log=1
#general_log_file="/tmp/sql.log"
#log_output=FILE

[client]
default-character-set = utf8

[mysqld_safe]
log-error=/var/log/mysql/mysql.log
pid-file=/var/run/mysqld/mysqld.pid
```

```
[root@psip33 conf.d]# systemctl restart mysqld
```

### 2.3.8 Configure PHP

```
[root@psip33 ~]# vi /etc/php.ini
```

<Add / Change followings>

```
extension=intl.so

date.timezone="Africa/Johannesburg"

memory_limit = 512M
```



```
# Followings are for debugging
```

```
display_errors = On
```

```
display_startup_errors = On
```

### 2.3.9 SSH configuration

```
[root@psip33 ~]# cd /etc/ssh
```

```
[root@psip33 ssh]# vi sshd_config
```

<Modify below>

```
GSSAPIAuthentication no
```

```
:
```

```
UseDNS no
```

```
:
```

```
PermitRootLogin without-password ← Prevent direct root login
```

Note that public key / private key login scheme will be implemented later. By such configuration, root can't login without having the private key. The public key / private key login setting is described in the Maintenance Manual.

### 2.3.10 Create psip user

```
[root@psip33 ~]# useradd -m psip
```

```
[root@psip33 ~]# passwd psip
```

```
[root@psip33 ~]# cd /home
```

```
[root@psip33 home]# chmod -R 755 psip
```

### 2.3.11 Disable SELinux

```
[root@psip33 home]# cd /etc/selinux/
```

```
[root@psip33 selinux]# vi config
```

```
SELINUX=disabled
```

```
[root@psip33 selinux]# setenforce 0
```

### 2.3.12 Configure firewall

```
[root@psip33 selinux]# cd /etc/firewalld/zones
```

```
[root@psip33 zones]# vi public.xml
```

<Following contents>

```

<?xml version="1.0" encoding="utf-8"?>
<zone>
  <short>Public</short>
  <description>For use in public areas. You do not trust the other computers on networks to
not harm \
your computer. Only selected incoming connections are accepted.</description>
  <service name="dhcpv6-client"/>
  <service name="samba"/>
  <service name="http"/>
  <service name="ssh"/>
  <service name="https"/>
</zone>

```

```
[root@psip33 zones]# systemctl restart firewalld
```

### 2.3.13 Start services, Enable auto start of services

```

[root@psip33 /]# systemctl enable mysqld
[root@psip33 /]# systemctl start mysqld
[root@psip33 /]# systemctl enable httpd
[root@psip33 /]# systemctl start httpd
[root@psip33 /]# systemctl enable ntpd
[root@psip33 /]# systemctl start ntpd

```

### 2.3.14 Format and mount the 2<sup>nd</sup> disk

The second disk with 200GB will be used for samba drive (Windows shared drive). It should be partitioned and formatted before using. Follow below steps to.

<Create Linux partition>

```
[root@psip34 ~]# fdisk /dev/vdb
```

```
Welcome to fdisk (util-linux 2.23.2).
```

```
:
```

```
Command (m for help): n
```

```
Partition type:
```

```
  p primary (0 primary, 0 extended, 4 free)
```

```
  e extended
```

```
Select (default p): p
```

```
Partition number (1-4, default 1): 1
```

```
First sector (2048-419430399, default 2048): ← ENTER
```

```
Using default value 2048
```

```
Last sector, +sectors or +size{K,M,G} (2048-419430399, default 419430399): ← ENTER
```

```
Using default value 419430399
```

```
Partition 1 of type Linux and of size 214 GiB is set
```

```
Command (m for help): t
Selected partition 1
Hex code (type L to list all codes): 83
Changed type of partition 'Linux' to 'Linux'
```

```
Command (m for help): w
The partition table has been altered!
```

```
Calling ioctl() to re-read partition table.
Syncing disks.
```

### <Create Ext4 filesystem>

```
[root@psip34 ~]# mkfs.ext4 /dev/vdb1
mke2fs 1.42.9 (28-Dec-2013)
Filesystem label=
OS type: Linux
:
Writing superblocks and filesystem accounting information: done
```

### <Create mount directory, Mount and Confirm>

```
[root@psip34 ~]# mkdir /var/samba
[root@psip34 ~]# mount /dev/vdb1 /var/samba
[root@psip34 ~]# df
```

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
/dev/mapper/centos-root	52403200	8071592	44331608	16%	/
devtmpfs	1531300	0	1531300	0%	/dev
tmpfs	1540624	0	1540624	0%	/dev/shm
tmpfs	1540624	8540	1532084	1%	/run
tmpfs	1540624	0	1540624	0%	/sys/fs/cgroup
/dev/loop0	4209322	4209322	0	100%	/mnt/centos-iso
/dev/mapper/centos-home	153484060	10928404	142555656	8%	/home
/dev/vdb1	206291944	15825720	179964132	9%	/var/samba
/dev/vda1	508588	129252	379336	26%	/boot

### <Make this mount permanent (also for DVD image)>

```
[root@psip33 ~]# vi /etc/fstab
```

```
#
# /etc/fstab
# Created by anaconda on Wed Jul 22 11:23:08 2015
#
# Accessible filesystems, by reference, are maintained under '/dev/disk'
# See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for more info
#
/dev/mapper/centos-root / xfs defaults 0 0
UUID=7bcac1fc-1eec-4f7e-9b5a-fb34dfc8f0f1 /boot xfs defaults 0 0
```

```
/dev/mapper/centos-home /home          xfs    defaults    0 0
/dev/vdb1 /var/samba                    ext4   defaults    0 0
/dev/mapper/centos-swap swap          swap   defaults    0 0
/usr/local/share/iso/CentOS-7.1-x86_64-DVD-1503-01.iso /mnt/centos-iso iso9660
loop,ro,auto 0 0
```

### 2.3.15 Reboot and confirm

```
[root@psip33 home]# shutdown -r now
```

<After rebooting>

```
[root@psip33 ~]# free
```

	total	used	free	shared	buffers	cached
Mem:	2956356	175484	2780872	0	6052	54004
-/+ buffers/cache:		115428	2840928			
Swap:	3096568	0	3096568			

### 2.3.16 Configure system clock

Depending on the BIOS setting, the system clock sometimes shows incorrect time. It might be 2 hours delayed from local time. It is because of the configuration of hardware clock, either it keeps local time or UTC. To confirm it, you just type “date” as a command.

```
[root@psip33 ~]# date
Fri Aug 4 10:24:08 SAST 2017
```

If the indicated time was 2 hours behind from real time, you have to do followings, otherwise you should skip.

```
[root@psip33 ~]# hwclock --hctosys --utc
[root@psip33 ~]# hwclock --system --utc
[root@psip33 ~]# date
Fri Aug 4 12:24:33 SAST 2017
```

Note: To change it back to previous, give “localtime” instead of “utc” above.

## 2.4 Configure virtual machine 2 (psip34)

The virtual machine 2 (psip34) is copied from virtual machine 1 (psip33). It is done on VM host machine (psip30). Before copying, the virtual machine 1 has to be shut down by next command.

```
[root@psip33 ~]# shutdown -h now
```

### 2.4.1 Clone virtual machine

```
[root@psip30 ~]# virt-clone --original psip33 --name psip34 --file  
/var/lib/libvirt/images/psip34.img
```

```
Allocating 'psip34.img' | 200 GB 06:41
```

```
Clone 'psip34' created successfully.
```

```
[root@psip30 ~]# virsh list --all
```

Id	Name	State
-	psip33	shut off
-	psip34	shut off

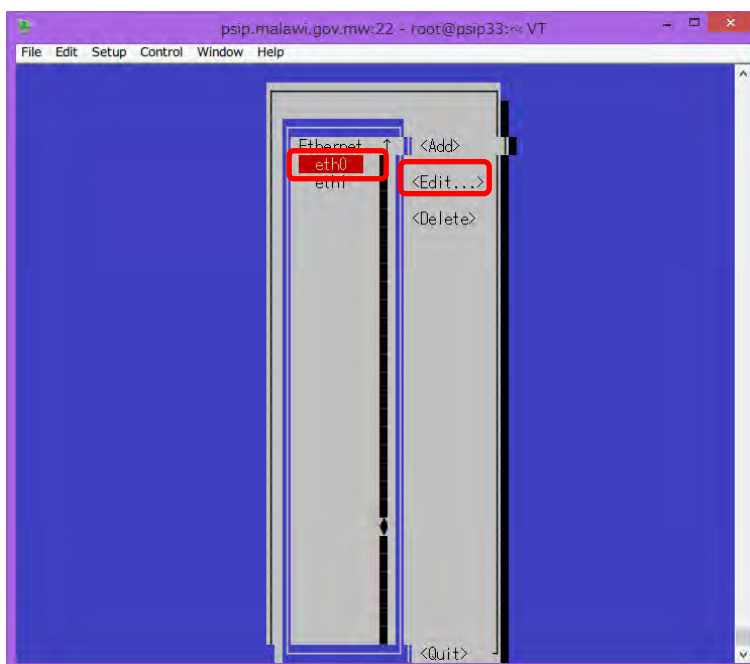
### 2.4.2 Configure Network

<Use NetworkManager>

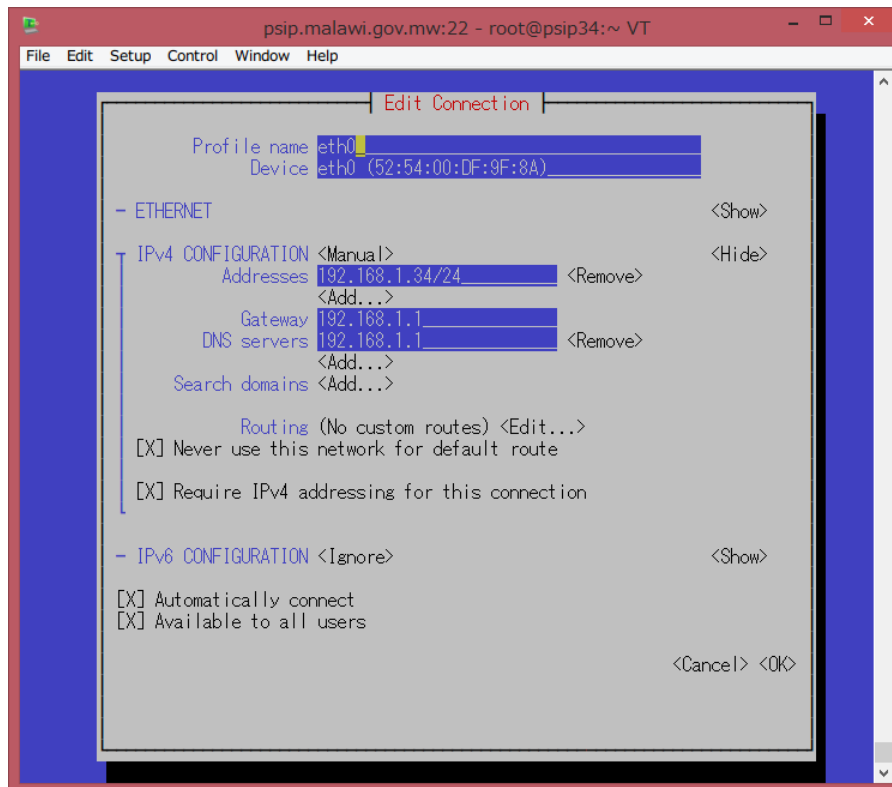
```
[root@psip34 ~]# nmtui
```

<Refer to following screens>

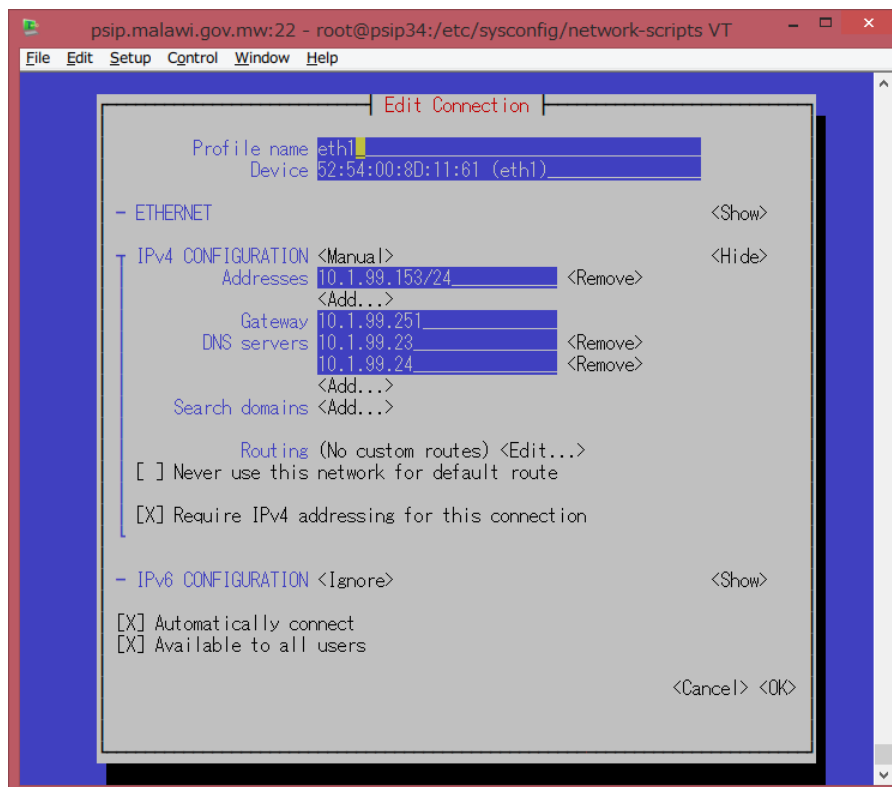
Interface selection



## eth0 configuration



## eth1 configuration



### 2.4.3 Configure Memory

Shutdown psip34 and reduce the memory size from 3072M to 2048M using virt-manager.

### 2.4.4 Configure automatic shutdown for virtual machines

<On psip30>

```
[root@psip30 ~]# cd /etc/sysconfig
```

```
[root@psip30 sysconfig]# vi libvirt-guests
```

<Change follows>

```
  :  
#ON_SHUTDOWN=suspend  
ON_SHUTDOWN=shutdown  
  :  
#SHUTDOWN_TIMEOUT=300  
SHUTDOWN_TIMEOUT=120
```

### 3 Peripheral interfaces

#### 3.1 SOCOMEC UPS monitoring software (psip30)

##### 3.1.1 Download Local View software

Access <http://www.socomec.com/> and download the software named “Local View” for Linux.

[Download](#) > [Software](#) > [UPS software](#) > **LOCAL VIEW**

### LOCAL VIEW

Device Model\* :

Device Power\* :

Operating System for this application\* :

Remote Monitoring application (if used) :

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Mandatory Field\*



**LocalView**

which will automatically shut down systems in the event of prolonged power outages, thereby preventing loss of data and damage to the system in situations where the computer is not supervised by an operator at the actual moment of the power failure. Simple, immediately user friendly and available in various languages, the software provides clear, detailed and instant information on UPS status, making it suitable even for users with minimal expertise. Local View can be updated via the Internet, ensuring the very latest functionality is available and provide the maximum level of protection for computers, workstations and servers.

Item	Current version	Old Versions	Product Compatibility
Installation setup x86	<a href="#">LocalView v.1.10_x86-Web_Setup.zip</a>		<a href="#">LocalView Win Comp.txt</a>
Installation setup x64	<a href="#">LocalView v.1.10_x64-Web_Setup.zip</a>		<a href="#">LocalView Win Comp.txt</a>
Installation package for Linux 32 bit	<a href="#">LocalView Linux32 01_06.tar</a>		<a href="#">LocalView MAC Comp.txt</a>
Installation package for Linux 64 bit	<a href="#">LocalView Linux64 01_06.tar</a>		<a href="#">LocalView MAC Comp.txt</a>
Installation package for MAC OS X	<a href="#">LocalView Mac 01_06.pkg</a>		<a href="#">LocalView MAC Comp.txt</a>

Documentation	Language
<a href="#">PDF</a> User manual for Windows	<a href="#">EN</a>   <a href="#">FR</a>   <a href="#">IT</a>   <a href="#">ES</a>   <a href="#">NL</a>
<a href="#">PDF</a> User manual for Linux and MAC OS X	<a href="#">EN</a>   <a href="#">FR</a>   <a href="#">IT</a>

- VIRTUAL JNC
- NET VISION
- RT VISION
- PDU VISION
- MODBUS TCP
- PROFIBUS
- MODULYS GP
- DELPHYS GP 2.0
- STATYS
- I-PDU
- JBUS MODBUS

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### 3.1.2 Installing SOCOMEC Local View

Upload the downloaded file "LocalView\_Linux64\_01\_06.zip" onto the server psip30 and do followings

```
[root@psip30 ~]# unzip LocalView Linux64 01_06.zip
Archive: LocalView_Linux64_01_06.zip
  creating: LocalView_Linux64_01_06.tar/
  inflating: LocalView_Linux64_01_06.tar/LocalView_Linux64_01_06.tar
[root@psip30 ~]# ls
anaconda-ks.cfg  epel-release-6-8.noarch.rpm  LocalView_Linux64_01_06.zip  Public
Desktop          install.log                   mbox                          Templates
Documents        install.log.syslog            Music                         Videos
Downloads        LocalView_Linux64_01_06.tar  Pictures
[root@psip30 ~]# ls LocalView_Linux64_01_06.tar/
LocalView_Linux64_01_06.tar
[root@psip30 ~]# cd LocalView Linux64 01_06.tar/
[root@psip30 LocalView_Linux64_01_06.tar]# tar xvf LocalView Linux64 01_06.tar
LocalView/
```

```
LocalView/libMonoPosixHelper.so
```

```
LocalView/libmono-2.0.so.1
```

```
:
```

```
[root@psip30 LocalView_Linux64_01_06.tar]# sh install.sh
```

Edit /etc/rc.d/rc.local file to include following highlighted lines. This is to automatically start the Local View software in boot up time.

```
#!/bin/sh
#
# This script will be executed *after* all the other init scripts.
# You can put your own initialization stuff in here if you don't
# want to do the full Sys V style init stuff.

touch /var/lock/subsys/local
# for UPS monitor
sh '/usr/Socomec UPS/LocalView/StartApp.sh' &
```

### 3.1.3 Configure automatic shutdown

Run a browser and access to next URL to invoke Local View software.

<http://192.168.1.30:8080/index.html>

LocalView

NETYS PE/PL  
UPS

eco MODE

TEST  
27.6 V  
Battery

4%  
Load

To configure automatic shutdown of the server, click [[LocalView Expert](#)] link in right upper corner.

# LocalView

**HISTORY**   **CONFIGURATION**   **HELP**

**Measurements**   **Event Log**

Measurements

Date & Time ↕	V In L1	V In L2	V In L3	Bat [%]	Bat[V]	V Out L1	V Out L2	V Out L3	Load [%]
09/02/2015 15:14:30	216.3				27.6	204			4
09/02/2015 15:04:30	218.2				27.6	206.9			3
09/02/2015 14:54:30	218.3				27.6	207			3
09/02/2015 14:44:30	218.2				27.6	206.9			3
09/02/2015 14:34:30	216.4				27.6	205.1			3
09/02/2015 14:24:30	216.4				27.6	205.1			3
09/02/2015 14:14:30	216.4				27.6	205.1			3
09/02/2015 14:04:30	220.2				27.6	208.9			4
09/02/2015 13:54:30	218.3				27.6	207			4
09/02/2015 13:44:30	218.3				27.6	207			3
09/02/2015 13:34:30	218.3				27.6	207			3
09/02/2015 13:24:30	220.1				27.6	208.8			3
09/02/2015 13:14:30	220.2				27.6	208.8			3

Page 1 of 35

View 1 - 13 of 455

Data

EXPORT

Press [CONFIGURATION] menu and select [Shutdown] tab.

Normal Mode | Load: 4% | LocalView Viewer

# LocalView

HISTORY **CONFIGURATION** HELP

E-Mail Shutdown **Miscellaneous** Communication

### Shutdown Configuration

First Warning (s):  Shutdown Delay (s):

First Delay Script:

Shutdown Command Script:

### Shutdown Events

Enabled	Event	First Delay (s)
<input type="checkbox"/>	On Battery	<input type="text" value="0"/>
<input type="checkbox"/>	Overload	<input type="text" value="0"/>
<input checked="" type="checkbox"/>	Over Temperature	<input type="text" value="10"/>

Enabled	Event	First Delay (s)
<input checked="" type="checkbox"/>	Battery Low	<input type="text" value="120"/>
<input type="checkbox"/>	Imminent Stop	<input type="text" value="0"/>
<input type="checkbox"/>	On Bypass	<input type="text" value="0"/>

### UPS Shutoff Configuration

UPS Shutoff:  UPS Shutdown Delay (s):

### Test Commands

**socomec**  
Innovative Power Solutions UPS

Ver. 01.06 (Build 0912-1)

Set the shutdown scheme as seen above screen.

## 3.2 OpenManage Server Administrator (psip30)

### 3.2.1 Install OpenManage Server Administrator

OpenManage Server Administrator (OSMA) is used to monitor DELL raid system. This requires Internet access because the installed files are downloaded from DELL's site.

<Add yum repository "dell-system-update\_dependent">

```
[root@psip30 ~]# wget -q -O - http://linux.dell.com/repo/hardware/latest/bootstrap.cgi | bash
```

```
[root@psip30 ~]# yum install srvadmin-all
[root@psip30 ~]# /opt/dell/srvadmin/sbin/srvadmin-services.sh start
```

<Test – Display the server hardware health condition>

```
[root@psip30 ~]# omreport chassis
```

<Test – Display the raid condition>

```
[root@psip30 ~]# omreport storage vdisk
```

<Test – Display the storage controller health condition>

```
[root@psip30 ~]# omreport storage pdisk controller=0
```

<Disable yum repository “dell-system-update\_dependent”>

```
[root@psip30 ~]# cd /etc/yum.repos.d/
```

```
[root@psip30 yum.repos.d]# vi dell-system-update_dependent.repo
```

```
enabled=0
```

### 3.2.2 Use OSMA

There are 2 ways to use OSMA – one is command base and the other is Web base. The command is **omreport** which located in `/opt/dell/srvadmin/bin`. For example, to obtain the disk drive status, try below.

```
[root@psip30 ~]# /opt/dell/srvadmin/bin/omreport storage pdisk controller=0
```

List of Physical Disks on Controller PERC H710 Mini (Embedded)

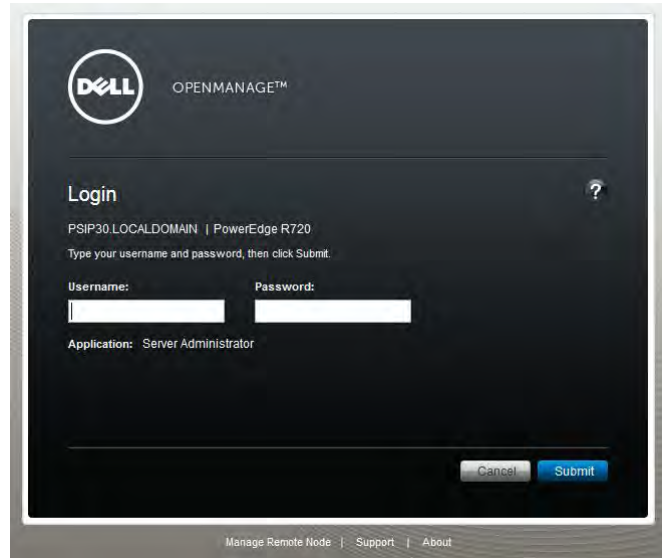
Controller PERC H710 Mini (Embedded)

```
ID                : 0:1:0
Status            : Ok
Name              : Physical Disk 0:1:0
State             : Online
Power Status      : Spun Up
Bus Protocol      : SATA
Media             : HDD
:
```

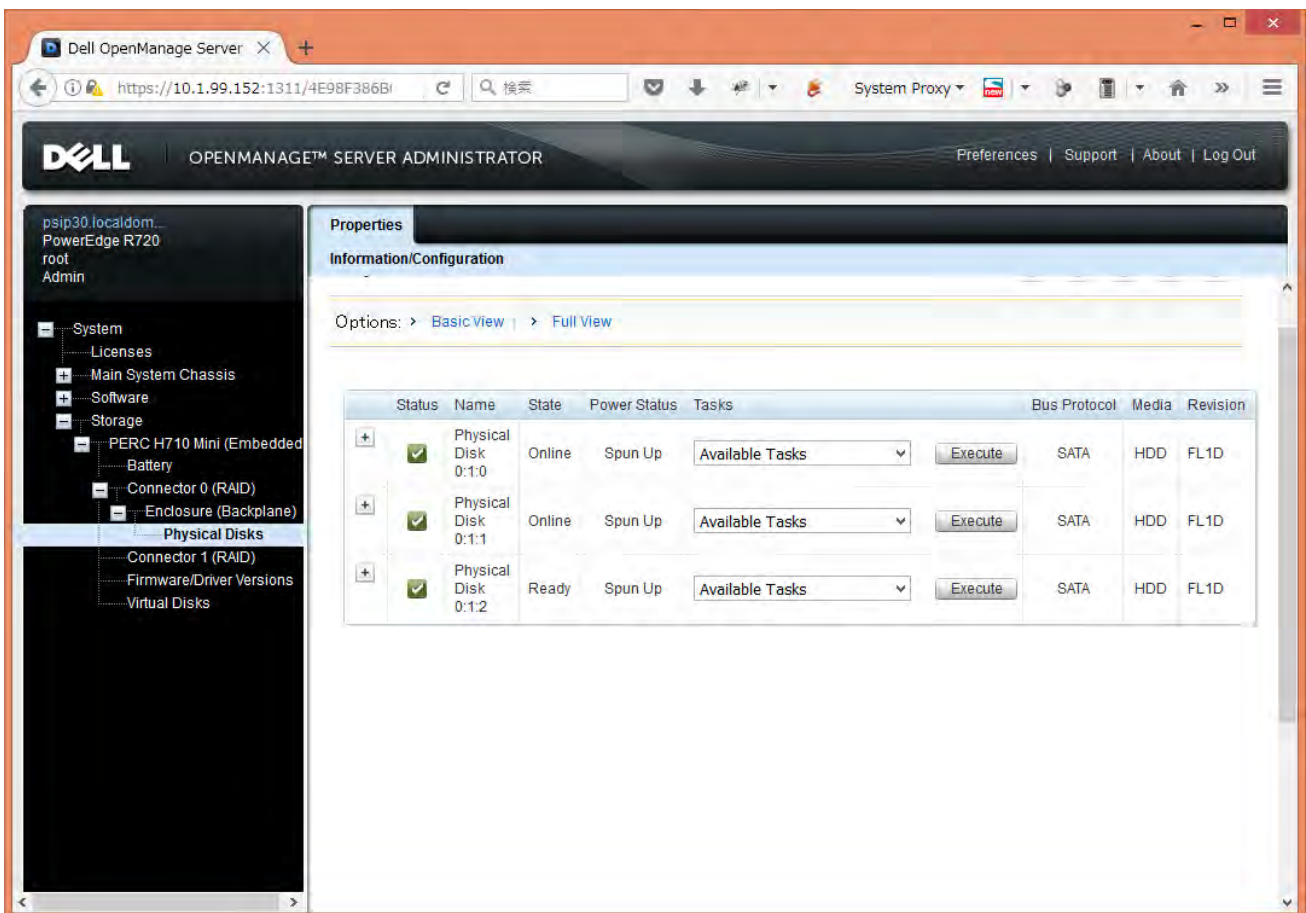
The other way – Web base can be used from next URL.

<https://10.1.99.152:1131/>

The user name is root and the password is root’s password.



The main concern is the health of disks. It can be seen by drilling down to Storage→PERC H710 Mini→Connector 0 (RAID)→Physical Disks. Next example shows all disks are OK.



2 disks (0:1:0 and 0:1:1) organize RAID1 (Mirror) and another disk (0:1:2) is ready for hot standby.



Government of Malawi

# **Public Sector Investment Programme (PSIP)**

## **PSIP DATABASE MAINTENANCE MANUAL**

The Ministry of Finance, Economic Planning and Development  
Department of Economic Planning and Development  
P. O. Box 30136  
Lilongwe 3, Malawi

July 2017



**Supported by**

**Project for Capacity Enhancement in Public Sector Investment Programming II  
(CEPSIP II)**

**Japan International Cooperation Agency**



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# 1 Establishing PSIP Database environment on the server

After installing and setting up the server by referring to Server Setup Manual, further installation and configuration are needed to make the server usable for PSIP Database. This chapter explains how to make the PSIP Database dependent environment including network.

## 1.1 Network environment

“Appendix A Network Diagram” shows the whole network diagram of PSIP Database environment which includes PSIP office network. PSIP Database servers are located in GWAN server room in Accountant Generals office building. There are 2 Physical Servers – one for live and the other for spare. The spare server is usually not working. In a Physical Server, there are 2 virtual servers configured as “PSIP Production Server” and “PSIP Test Server”. Therefore there are 3 servers (physical, PSIP production and PSIP test) accessible over the network. In the network diagram the servers are describe at the right bottom corner – a cyan colored box.

The IP addresses and firewall configurations of the 3 servers are summarized in the next table.

**Table 1 Network configuration**

No.	Item	Physical Server	PSIP Production Server	PSIP Test Server
1	Network1 (br0) IP Address Subnet mask Gateway DNS	Interface=br0 192.168.1.30 255.255.255.0 192.168.1.1 192.168.1.1	Interface=eth0 192.168.1.31 255.255.255.0 192.168.1.1 192.168.1.1	Interface=eth0 192.168.1.34 255.255.255.0 192.168.1.1 192.168.1.1
2	Network2 (br1) IP Address Subnet mask Gateway DNS1 DNS2	Interface=br1 10.1.99.152 255.255.255.0 10.1.99.251 10.1.99.23 10.1.99.24	Interface=eth1 10.1.99.151 255.255.255.0 10.1.99.251 10.1.99.23 10.1.99.24	Interface=eth1 10.1.99.153 255.255.255.0 10.1.99.251 10.1.99.23 10.1.99.24
3	Router	No router	GWAN router	GWAN router
4	Firewall in-ports	ssh(22), http(80), https(443), OSMA(1131) <sup>1</sup> LocalView(8080) <sup>2</sup>	ssh(22), http(80), https(443), samba (137, 138, 139, 445)	ssh(22), http(80), https(443)

Network1 is connected to an Ethernet port of the physical server but Network2 is not connected to any physical ports thus it’s only usable for the communication between 3 servers. It is recommended

<sup>1</sup> OSMA: OpenManage Server Administrator – A name of server monitoring & control tool provided by DELL.

<sup>2</sup> LocalView: Names of the UPS monitoring software provided by the UPS maker SOCOMEC.

to use Network1 for data exchange between servers and to use Network1 for accessing to the server from GWAN or Internet. In every server, the interface that has an IP address 10.199.XX is configured as “Default route”.

All these configurations are done as network configuration of Linux. The actual configuration methods are described in Server Setup Manual.

## 1.2 Server environment

Next diagram shows the server structure and resource allocation.

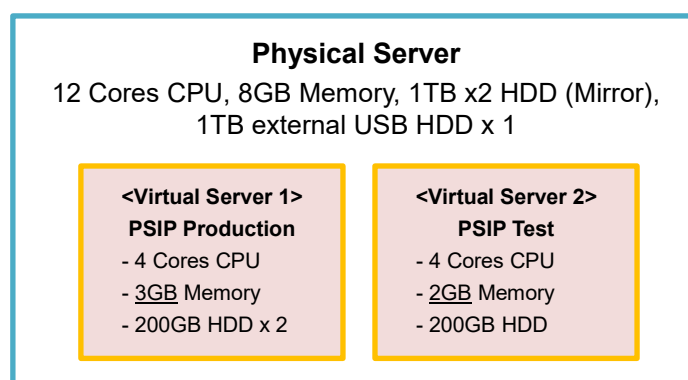


Fig. 1 Server structure and resource allocation

The next table summarizes the role of each server.

Table 2 Server's roles

No.	Server	Role	Description
1	Physical Server	Virtual server environment (KVM) host	Manages guest virtual machines (PSIP Production server and PSIP test server)
		Backup	Take backup of disk space, database, http logs and VM (Virtual Machine) images of each server automatically
		Monitoring	Server health monitoring and UPS status monitoring
2	PSIP Production Server	PSIP Database (KVM guest)	Database system application and database
		Windows shared folder server (samba)	Provide Windows shared folders to the PSIP office
3	PSIP Test Server	PSIP Database for test (KVM guest)	Database system application and database
		Git server	Provide the source code revision control scheme using “git”. Note that the PSIP Production server is a git client of this server.

Note that all developers’ PCs source code and revisions have to be synchronized with the remote git

on PSIP Test server.

### 1.2.1 Configuring Physical Server

The OS dependent configurations are described in Server Setup Manual. This section describes the configurations for backup scheme.

#### (1) Attaching the external USB HDD

A 1TB external USB HDD is connected to the Physical Server to keep the backup files of all 3 servers. The external USB HDD has to be formatted as NTFS filesystem which is the standard format of today's Windows. It can be done using Windows PC. The USB external HDD is mounted to the mount point "/var/mnt/ext-hdd" on the Physical Server. The mount point must be manually created before mounting the disk. And the mounting specification must be written in the file "/etc/fstab". The procedures are as follows.

<Login as root>

```
[root@psip30 ~]# cd /mnt
[root@psip30 mnt]# mkdir ext-hdd
```

<Confirm /etc/fstab>

```
[root@psip30 mnt]# cat /etc/fstab
```

```
 :
 /dev/sdb1          /mnt/ext-hdd     ntfs noauto 0 0
```

If the line does not exist in fstab file, just add it as above.

After above procedures completed, connect the external USB HDD to the USB port of the Physical Server and do next.

```
[root@psip30 ~]# mount /mnt/ext-hdd
[root@psip30 ~]#
```

If some errors appear, check the boot log as below.

```
[root@psip30 ~]# dmesg | less
Initializing cgroup subsys cpuset
Initializing cgroup subsys cpu
:
: /usb-storage          ← Type /usb-storage
```

<You will see next>

```
dracut: Switching root
usb-storage: device scan complete
```

```

scsi 7:0:0:0: Direct-Access      BUFFALO  HD-PNTU3          0001 PQ: 0 ANSI: 6
sd 7:0:0:0: [sdb] 1953463728 512-byte logical blocks: (1.00 TB/931 GiB)
sd 7:0:0:0: [sdb] Write Protect is off
sd 7:0:0:0: [sdb] Mode Sense: 1f 00 00 08
sd 7:0:0:0: [sdb] Assuming drive cache: write through
sd 7:0:0:0: [sdb] Assuming drive cache: write through
sdb: sdb1
:
pps_core: Software ver. 5.3.6 - Copyright 2005-2007 Rodolfo Giometti <giometti@linux.it>
:q ← Type q

```

In above example, the device name is “sdb1”. So the device file path /dev/sdb1 has to be written in /etc/fstab file.

After mounting the external USB HDD to the mount point /mnt/ext-hdd, confirm it.

```

[root@psip30 ~]# df

```

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
/dev/mapper/vg_psip10-LogVol01	952383436	335950340	568054832	38%	/
tmpfs	4004432	88	4004344	1%	/dev/shm
/dev/sda1	495844	40193	430051	9%	/boot
/usr/local/share/iso/CentOS-6.5-x86_64-bin-DVD1.iso		4363088	4363088	0	100%
/mnt/centos-iso					
/dev/sdb1		976726876	795959144	180767732	82%
/mnt/ext-hdd					

The last line start from /dev/sdb1 is the evidence for success recognition of external USB HDD. After the confirmation unmount it because backup program will do it automatically while performing backup.

```

[root@psip30 ~]# umount /mnt/ext-hdd

```

## (2) Copy the necessary files for implementing backup scheme

<Copy tools/psip30 from other server or backups to the home directory of psip user>

<Assume that tools/psip30 already exists in PSIP Test Server>

<Be psip user>

```

[root@psip30 ~]# su - psip
[psip@psip30 ~]$ scp -r 192.168.1.34:tools/psip30 .
psip@192.168.1.34's password: ← Enter password of psip in PSIP Test Server
[psip@psip30 ~]$ exit ← Return to root
[root@psip30 ~]# cat tools/psip30/crontab_root

```



```

05 1 * * * /home/psip/tools/psip30/daily_backup.sh >> /var/log/daily_backup.log 2>&1
[root@psip30 ~]# crontab -e          ← Configure crontab
<Create a line which displayed when doing “cat ...” above>
<After completing the configuration of crontab, confirm it by next>
[root@psip30 ~]# crontab -l
05 1 * * * /home/psip/tools/psip30/daily_backup.sh >> /var/log/daily_backup.log 2>&1
[root@psip30 ~]#

```

The meaning of above crontab configuration “Run daily\_backup.sh script at 1:05 AM every day and record the result in the log file daily\_backup.log”.

## 1.2.2 Configuring PSIP Test Server

The OS dependent configurations are described in Server Setup Manual. This section describes the configurations for letting this server work as a PSIP Database (for test) and Git server.

### (1) Configure PSIP Database application

<Assume that source files exist as a source archive in tar.gz (tgz) format which contains public\_html, tools smarty and install directories>

<Assume that the source archive filename is psip\_database\_v4\_src-20170820.tgz>

<Transfer the file into ~/tmp directory before doing follows>

<Login as psip user>

```
[psip@psip34 ~]$ tar xvzf tmp/psip_database_v4_src-20170820.tgz
```

```
[psip@psip34 ~]$ tar xvzf install/install_smarty.tgz
```

Smarty

smarty-3.1.27/

smarty-3.1.27/.gitattributes

:

```
[psip@psip34 ~]$ tar xvzf install/install_base_templates2.tgz
```

base\_templates2/

base\_templates2/20161216\_1718\_ONGOING\_V41\_BLANK.xlsm

base\_templates2/20161216\_1718\_NEW\_V41\_BLANK.xlsm

:

<If the template files and forms in base\_templates2 are old, copy the latest files and re-link the file. Refer to the “Annual PSIP operation” chapter for the command to make the link>

```
[psip@psip34 ~]$ cp install/dot_emacs .emacs
```

```
[psip@psip34 ~]$ cd public_html/
```

```
[psip@psip34 public_html]$ ./init_env_smarty.sh
[psip@psip34 public_html]$ ./init_env_symfony.sh
```

The fundamental configuration is completed but following directories have to be confirmed because these directories may contain files during the usage of PSIP Database.

#### **public\_html/psip/2018-19**

This directory contains document files and results of template generation. You may need to copy the files from the backups. The number 2018-19 corresponds to the fiscal year therefore the name of directory changes according to the current fiscal year setting.

#### **public\_html/filesets2**

This directory contains photo files of site validation log and/or attachments of projects.

## (2) Configure Git server

Because the test server is used as Git server, git environment must be established by following steps.

```
[psip@psip34 public_html]$ cd
[psip@psip34 ~]$ cd install/
[psip@psip34 install]$ cp dot_gitconfig ~/.gitconfig
[psip@psip34 install]$ cp 00_git_server_files/dot_gitignore-public_html
~/public_html/.gitignore
[psip@psip34 install]$ cp 00_git_server_files/dot_gitignore-tools ~/tools/.gitignore
[psip@psip34 install]$ cp 00_git_server_files/dot_gitignore-smarty ~/smarty/.gitignore
[psip@psip34 install]$ cd
[psip@psip34 ~]$ cd public_html/
[psip@psip34 public_html]$ git init
Initialized empty Git repository in /home/psip/public_html/.git/
[psip@psip34 public_html]$ git add .
<Use your name instead of Ishikawa below>
[psip@psip34 public_html]$ git commit -am "Initial commit by Ishikawa"
<Create develop branch and delete master branch>
[psip@psip34 public_html]$ git branch develop
[psip@psip34 public_html]$ git branch
  develop
* master
[psip@psip34 public_html]$ cd
[psip@psip34 ~]$ cd tools/
[psip@psip34 tools]$ git init
```

```

Initialized empty Git repository in /home/psip/tools/.git/
[psip@psip34 tools]$ git add .
[psip@psip34 tools]$ git commit -am "Initial commit by Ishikawa"
[psip@psip34 tools]$ git branch develop
[psip@psip34 tools]$ cd
[psip@psip34 ~]$ cd smarty
[psip@psip34 smarty]$ git init
Initialized empty Git repository in /home/psip/smarty/.git/
[psip@psip34 smarty]$ git add .
[psip@psip34 smarty]$ git commit -am "Initial commit by Ishikawa"
[psip@psip34 smarty]$ git branch develop
[psip@psip34 smarty]$ cd
<Create remote git for public_html>
[psip@psip34 ~]$ mkdir public_html.git
[psip@psip34 ~]$ git clone -b develop --bare public_html public_html.git
Cloning into bare repository 'public_html.git'...
done.
[psip@psip34 ~]$ cp install/00_git_server_files/hooks_public_html-post-receive
public_html.git/hooks/post-receive
[psip@psip34 ~]$ chmod +x public_html.git/hooks/post-receive
<Create remote git for tools>
[psip@psip34 ~]$ mkdir tools.git
[psip@psip34 ~]$ git clone -b develop --bare tools tools.git
Cloning into bare repository 'tools.git'...
done.
[psip@psip34 ~]$ cp install/00_git_server_files/hooks_tools-post-receive
tools.git/hooks/post-receive
[psip@psip34 ~]$ chmod +x tools.git/hooks/post-receive
<Create remote git for smarty>
[psip@psip34 ~]$ mkdir smarty.git
[psip@psip34 ~]$ git clone -b develop --bare smarty smarty.git
Cloning into bare repository 'smarty.git'...
done.
[psip@psip34 ~]$ cp install/00_git_server_files/hooks_smarty-post-receive
smarty.git/hooks/post-receive
[psip@psip34 ~]$ chmod +x smarty.git/hooks/post-receive
<Delete master branches>
[psip@psip34 ~]$ cd public_html.git

```

```

[psip@psip34 public_html.git]$ git branch -d master
Deleted branch master (was 0e623cc).
[psip@psip34 public_html.git]$ cd
[psip@psip34 ~]$ cd tools.git
[psip@psip34 tools.git]$ git branch -d master
Deleted branch master (was 0e623cc).
[psip@psip34 tools.git]$ cd
[psip@psip34 ~]$ cd smarty.git
[psip@psip34 smarty.git]$ git branch -d master
Deleted branch master (was 0e623cc).
[psip@psip34 smarty.git]$ cd
[psip@psip34 ~]$ tar xvzf install/home_bin.tgz
[psip@psip34 ~]$ cd public_html
[psip@psip34 public_html]$ git checkout develop
[psip@psip34 public_html]$ git branch -d master
[psip@psip34 public_html]$ cd ../tools
[psip@psip34 tools]$ git checkout develop
[psip@psip34 tools]$ git branch -d master
[psip@psip34 tools]$ cd ../smarty
[psip@psip34 smarty]$ git checkout develop
[psip@psip34 smarty]$ git branch -d master

```

### 1.2.3 Configuring PSIP Production Server

The OS dependent configurations are described in Server Setup Manual. This section describes the configurations for letting this server work as a PSIP Database and Windows shared folder server.

#### (1) Configure PSIP Database application

<Assume that source files exist in PSIP Test Server as git managed way>

<Login as psip user and clone the source trees from the git remote server>

<At first, copy “install” directory>

```

[psip@psip33 ~]$ scp -r psip@192.168.1.34:install .
psip@192.168.1.34's password:
install_base_templates2.tgz      100% 2137KB  2.1MB/s   00:01
:
[psip@psip33 ~]$
[psip@psip33 ~]$ cp install/dot_gitconfig .gitconfig
[psip@psip33 ~]$ git clone -b develop psip@192.168.1.34:public_html.git

```

```
Cloning into 'public_html'...
psip@192.168.1.34's password:
remote: Counting objects: 11732, done.
:
```

```
[psip@psip33 ~]$ git clone -b develop psip@192.168.1.34:tools.git
Cloning into 'tools'...
psip@192.168.1.34's password:
remote: Counting objects: 128, done.
remote: Compressing objects: 100% (125/125), done.
:
```

```
[psip@psip33 ~]$ git clone -b develop psip@192.168.1.34:smarty.git
Cloning into 'smarty'...
psip@192.168.1.34's password:
remote: Counting objects: 36, done.
remote: Compressing objects: 100% (34/34), done.
:
```

```
[psip@psip33 ~]$ tar xvzf install/install_smarty.tgz
Smarty
smarty-3.1.27/
smarty-3.1.27/.gitattributes
:
```

```
[psip@psip33 ~]$ tar xvzf install/install_base_templates2.tgz
base_templates2/
base_templates2/20161216_1718_ONGOING_V41_BLANK.xlsm
base_templates2/20161216_1718_NEW_V41_BLANK.xlsm
:
```

<If the template files and forms in base\_templates2 are old, copy the latest files and re-link the file. Refer to the “Annual PSIP operation” chapter for the command to make the link>

```
[psip@psip33 ~]$ cp install/dot_emacs .emacs
[psip@psip33 ~]$ cd public_html/
[psip@psip33 public_html]$ ./init_env_smarty.sh
[psip@psip33 public_html]$ ./init_env_symfony.sh
```

The fundamental configuration is completed but following directories have to be confirmed because these directories may contain files during the usage of PSIP Database.

### **public\_html/psip/2018-19**

This directory contains document files and results of template generation. You may need to copy the files from the backups. The number 2018-19 corresponds to the fiscal year therefore the name of directory changes according to the current fiscal year setting.

### **public\_html/filesets2**

This directory contains photo files of site validation log and/or attachments of projects.

## (2) Configure “PSIP Database automatic loader” service

A service named “psip\_auto\_load” must be installed to enable the automatic template loading. It is done by following steps.

<Be root user>

```
[psip@psip33 ~]$ su -
Password:
[root@psip33 ~]# cp /home/psip/tools/psip33/psip_autoupload.service /etc/systemd/system
[root@psip33 ~]# systemctl enable psip_autoupload
ln -s '/etc/systemd/system/psip_autoupload.service'
'/etc/systemd/system/multi-user.target.wants/psip_autoupload.service'
[root@psip33 ~]# systemctl start psip_autoupload
```

<Confirm if it runs>

```
[root@psip33 ~]# systemctl status psip_autoupload
psip_autoupload.service - PSIP automatic template loader
   Loaded: loaded (/etc/systemd/system/psip_autoupload.service; enabled)
   Active: active (running) since Mon 2017-08-21 00:09:55 SAST; 9s ago
 Main PID: 50465 (psip_autoupload)
    CGroup: /system.slice/psip_autoupload.service
           tq50465 /bin/sh /home/psip/tools/psip33/psip_autoupload.sh
           mq50479 sleep 5
```

```
Aug 21 00:09:55 psip104.localdomain systemd[1]: Starting PSIP automatic template loa.....
```

```
Aug 21 00:09:55 psip104.localdomain systemd[1]: Started PSIP automatic template loader.
```

```
Hint: Some lines were ellipsized, use -l to show in full.
```

```
[root@psip33 ~]#
```

Additionally /etc/sudoers must be edited to make automatic upload and automatic generation work.

```
[root@psip33 ~]# visudo
```

<Add highlighted parts>

```
:  
#  
Defaults    requiretty  
Defaults:apache !requiretty  
#  
## Allows members of the users group to shutdown this system  
# %users    localhost=/sbin/shutdown -h now  
  
## Added for Web-based submission  
apache ALL=(ALL) NOPASSWD: /home/psip/tools/psip33/copy_autoupload_file.sh  
apache ALL=(ALL) NOPASSWD: /home/psip/tools/psip33/psip_job_start.sh  
  
## Read drop-in files from /etc/sudoers.d (the # here does not mean a comment)  
#includedir /etc/sudoers.d
```

The meaning of above sudoers configuration is “Allow apache user execution of copy\_autoupload\_file.sh and psip\_job\_start.sh scripts as a super user’s privilege and the executions do not require tty (terminal I/O)”.

### (3) Configure Windows shared folder server (samba)

The PSIP Production Server is also works as Windows shared folder server. From PCs connected to the server, the shared folders appear as seen below.

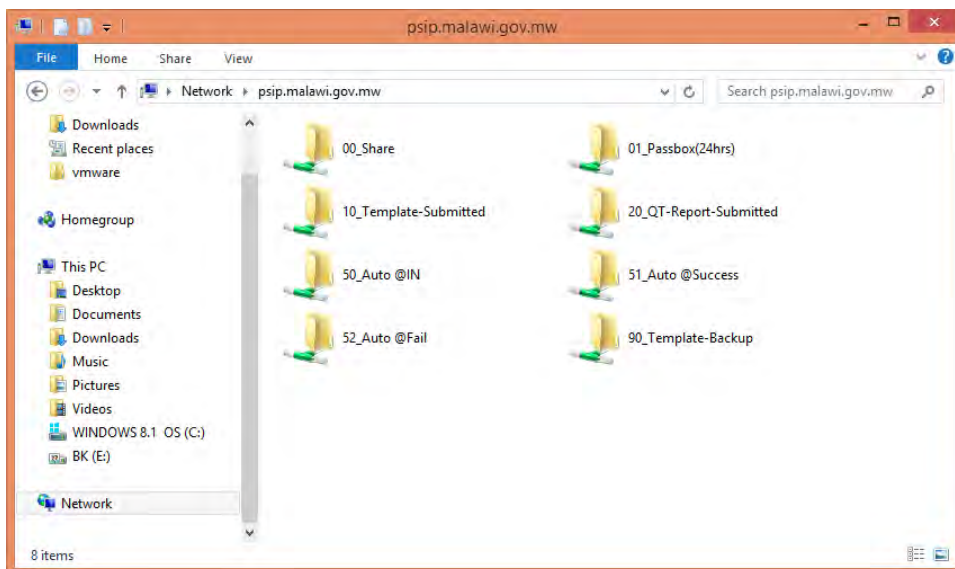


Figure 1 Shared folders

To configure this, follow next steps.

```
[root@psip33 ~]# cd /var
```

```
[root@psip33 var]# mkdir samba
```

<You can skip if following steps directories already exist>

```
[root@psip33 var]# cd samba
```

```
[root@psip33 samba]# mkdir autoupload
```

```
[root@psip33 samba]# mkdir autoupload_fail
```

```
[root@psip33 samba]# mkdir autoupload_success
```

```
[root@psip33 samba]# mkdir passbox
```

```
[root@psip33 samba]# mkdir qt_submitted
```

```
[root@psip33 samba]# mkdir share
```

```
[root@psip33 samba]# mkdir temp_submitted
```

```
[root@psip33 samba]# chmod 777 *
```

<Configure samba>

```
[root@psip33 ~]# cd /etc/samba
```

```
[root@psip33 samba]# mv -f smb.conf smb.conf-original
```

```
[root@psip33 samba]# cp /home/psip/tools/psip33/smb.conf_sample smb.conf
```

```
[root@psip33 samba]# systemctl enable smb
```

```
[root@psip33 samba]# systemctl start smb
```

<The contents of smb.conf are as below>

```
[global]
workgroup = PSIP_OFFICE
server string = Samba Server
log file = /var/log/samba/log.%m
max log size = 50
unix charset = UTF-8
dos charset = CP932
hosts allow = 127. 192.168.1. 10.1.103.19
#security = share
security = user
map to guest = Bad User
guest ok = yes
[00_Share]
path = /var/samba/share
writable = yes
guest ok = yes
guest only = yes
create mode = 0777
directory mode = 0777
share modes = yes
[01_Passbox(24hrs)]
path = /var/samba/passbox
writable = yes
guest ok = yes
guest only = yes
```



```
create mode = 0777
directory mode = 0777
share modes = yes
  [10_Template-Submitted]
path = /var/samba/temp_submitted
writable = yes
guest ok = yes
guest only = yes
create mode = 0777
directory mode = 0777
share modes = yes
# [11_Template-Checked]
# path = /var/samba/temp_checked
# writable = yes
# guest ok = yes
# guest only = yes
# create mode = 0777
# directory mode = 0777
# share modes = yes
[20_QT-Report-Submitted]
path = /var/samba/qt_submitted
writable = yes
guest ok = yes
guest only = yes
create mode = 0777
directory mode = 0777
share modes = yes
[50_Auto @IN]
path = /var/samba/autoupload
writable = yes
guest ok = yes
guest only = yes
create mode = 0777
directory mode = 0777
share modes = yes
[51_Auto @Success]
path = /var/samba/autoupload_success
writable = yes
guest ok = yes
guest only = yes
create mode = 0777
directory mode = 0777
[52_Auto @Fail]
path = /var/samba/autoupload_fail
writable = yes
guest ok = yes
guest only = yes
create mode = 0777
directory mode = 0777
share modes = yes
[90_Template-Backup]
path = /var/samba/temp_backup
writable = no
```

```
guest ok = yes
guest only = yes
create mode = 0755
directory mode = 0755
share modes = yes
```

The meaning of highlighted part is “Allow access from local host (127.), server internal network (192.168.1.) and PSIP office (10.1.103.19=Router’s WAN port address). This guarantees preventing folder sharing from other MDAs.

<Confirm from Windows PC>

Put “\\10.1.99.151” into the address bar of Windows explorer so that you can see the folders like Figure 1.

<Configure automatic purge of Passbox folder>

The contents of Passbox folder (seen as “01\_Passbox(24hrs)”) have to be automatically deleted after 24 hours. Use crontab for this purpose.

```
[root@psip33 samba]# cat /home/psip/tools/psip33/crontab_root
15 3 * * * /home/psip/tools/psip33/purge_passbox_folder.sh
[root@psip33 samba]# crontab -e
```

<Create a line which displayed when doing “cat ...” above>

<After completing the configuration of crontab, confirm it by next>

```
[root@psip33 samba]# crontab -l
15 3 * * * /home/psip/tools/psip33/purge_passbox_folder.sh
[root@psip33 samba]#
```

The meaning of above crontab configuration is “Run purge\_passbox.sh script at 3:15 AM every day”.

#### 1.2.4 Configure ssh to enable remote backup

The backups for 3 servers (Physical / PSIP Production / PSIP Test) are taken into the external USB HDD attached to the Physical server. To enable to run backup command in the remote servers (Physical server → PSIP Production server , Physical server → PSIP Test server), ssh must be configured to allow root user in Physical server to execute command in remote servers as root privilege without password. This is done by using public key / private key technology. These keys are generated in the Physical server side and the public key is shared among the servers.

(1) Generate public key and private key in Physical server.

<Login to Physical server (10.1.99.152) as root>

```
[root@psip30 test]# cd .ssh
[root@psip30 .ssh]# ssh-keygen -t dsa
Generating public/private dsa key pair.
Enter file in which to save the key (/var/lib/pgsql/.ssh/id_dsa): ← press [Enter]
Enter passphrase (empty for no passphrase): ← press [Enter]
Enter same passphrase again: ← press [Enter]
Your identification has been saved in /root/.ssh/id_rsa.
Your public key has been saved in /root/.ssh/id_rsa.pub.
The key fingerprint is:
a2:80:ee:08:7a:da:a9:89:3f:3e:3b:fd:f9:e1:f5:49 root@psip30.localdomain
The key's randomart image is:
+--[ DSA 1024]--+
|                 |
|                 |
|                 |
| .               |
|. . . . S        |
|. . . .          |
|.. .. . . E     |
|*o=.. o o o .   |
|BB*= .o.o o     |
+-----+
[root@psip30 .ssh]#
```

(2) Copy the public key from Physical server to PSIP Production server

<Login to PSIP Production server (10.1.99.151) as root>

```
[root@psip33 ~]# cd .ssh
[root@psip33 .ssh]# scp 10.1.99.152:~/.ssh/id_dsa.pub ./authorized_keys
root@10.1.99.152's password: ) ← Enter Physical server's root password
id_dsa.pub                                100% 613    0.6KB/s  00:00
```

<Confirm>

```
[root@psip33 .ssh]# ls -l
total 8
-rw-r--r-- 1 root root 613 Aug 29 11:13 authorized_keys
-rw-r--r-- 1 root root 1307 Aug 9 15:49 known_hosts
```

<Change access mode>

```
[root@psip33 .ssh]# chmod 600 authorized_keys
[root@psip33 .ssh]# ls -l
total 8
-rw----- 1 root root 613 Aug 29 11:13 authorized_keys
-rw-r--r-- 1 root root 1307 Aug 9 15:49 known_hosts
```

(3) Copy the public key from Physical server to PSIP Test server

<Login to PSIP Test server (10.1.99.153) as root>

```
[root@psip34 ~]# cd .ssh
[root@psip34 .ssh]# scp 10.1.99.152:~/.ssh/id_dsa.pub ./authorized_keys
```

```

root@10.1.99.152's password: ← Enter Physical server's root password
id_dsa.pub                    100% 613    0.6KB/s  00:00
<Confirm>
[root@psip34 .ssh]# ls -l
total 8
-rw-r--r-- 1 root root 613 Aug 29 11:13 authorized_keys
-rw-r--r-- 1 root root 1307 Aug  9 15:49 known_hosts
<Change access mode>
[root@psip34 .ssh]# chmod 600 authorized_keys
[root@psip34 .ssh]# ls -l
total 8
-rw----- 1 root root 613 Aug 29 11:13 authorized_keys
-rw-r--r-- 1 root root 1307 Aug  9 15:49 known_hosts

```

(4) Confirm the configuration works (do something in the remote without password)

```

<Login to Physical server>
[root@psip30 ~]# ssh 10.1.99.151 ls -l /
stty: standard input: Inappropriate ioctl for device
total 32
lrwxrwxrwx.  1 root root    7 Jul 22  2015 bin -> usr/bin
dr-xr-xr-x.  4 root root 4096 Jul 25  2015 boot
:
drwxr-xr-x. 22 root root 4096 Aug 15 16:24 var
[root@psip30 ~]# ssh 10.1.99.153 ls -l /
stty: standard input: Inappropriate ioctl for device
total 32
lrwxrwxrwx.  1 root root    7 Jul 22  2015 bin -> usr/bin
dr-xr-xr-x.  4 root root 4096 Jul 25  2015 boot
:
drwxr-xr-x. 22 root root 4096 Aug 15 17:05 var
[root@psip30 ~]#

```

Note that `/etc/ssh/sshd_config` must have following setting.

PermitRootLogin without-password
----------------------------------

By this configuration, root can't login without having the private key.

## **2 Annual PSIP operation**

There are several tasks to be done by PSIP IT staffs. “Appendix B PSIP IT Annual Schedule” shows the annually periodical tasks supposed to be done by PSIP IT staffs and Economists. Note that it only describes the Database related tasks but not all PSIP activities. Following sections describes details and concrete operations of each task in the schedule.

### **2.1 Gather requirements for improvement**

In every PSIP annual cycle, March is the timing to start the discussion for improvement of PSIP Database because PSIP has concluded the project status and budget allocation. Therefore PSIP staffs should have many ideas for the improvement. Another reason of the timing is deadline of the development. The development has to be completed by the end of June (assuming the Circular #1 is issued on the 1<sup>st</sup> of August). Only 4 months are given for the development.

By holding “PSIP Database improvement meetings“, gather requirements from the users such as PSIP managements, desk officers (Economists) and IT staffs (MDA users and M&E division users may also be included).

PSIP IT staffs make change requests using Change Request Form (see Appendix C Change Request Form) and also start designing new Excel templates. The Change Request Forms are supposed to be submitted to e-Government.

### **2.2 Make Detail Design**

“PSIP Database design meetings” have to be held by gathering PSIP IT staffs and e-Governments developers. The purpose of the meetings is to judge the priority and necessity of the each improvement item written in Change Request Forms. Once the development items are decided, the strategy of implementation for each item should be discussed and concluded in the meeting. Such decision must be summarized into “Appendix D PSIP Database and Excel tools Development Plan & Progress”. It also should contain difficulty, priority, person in charge and due date.

The detail design must be described in Detail Design Form (see Appendix E PSIP Database Detail Design Form (Page Design)). The additional specification of program flow & logic and (if the improvement items involves database’s design change) database design modification specification must be described in the form.

### **2.3 Coding, debugging and testing**

The coding, testing and debugging process are supposed to be done in individual development environment but the base source codes must be cloned from Git server and ready to be synchronized. The detail Git tool environment is described in following chapter.

The progress and technical issues have to be reported and discussed in the Development meeting which is supposed to be held at least every 2 weeks.

## 2.4 Process Extension Request

This should be done by economists but IT staff has to assist the usage. The extension request is a sheet included in Quarterly Progress Report. It is supposed to be submitted before the project ends. Once the extension request sheet is filled and the Quarterly Progress Report is submitted, IT staff load it using Loader utility (Web base, Folder base or Manual) the [EX] indicator appears in the Quarterly Report column of the PSIP Process Management page.

The screenshot shows the PSIP Process Management page for FY 2017/18, Vote 180 - Ministry of Civic Education, Culture and Community Development. The table lists five projects with their status and extension request indicators. The 'EX' indicators for projects 3 and 5 are highlighted with red boxes.

No.	Project Title	Project Code	Approved Status in FY2016/17 (Budgeted)	Quarterly Report FY2016/17 ([EX]=Extension request)	Site Validation Log	Progress Remark
1	Development of National Monuments and Construction of Cultural Infrastructure	1137	PENDED		create	create
2	Development of Mausolea (Kamuzu Memorial Park, Mpumulo wa Bata and Chakufwa Chihana) Tombs of the July 20 Victims and Dunduzu Chisiza Tomb	1138	PENDED		create	create
3	Construction of National Stadium	1183	ONGOING	Q1	EX	create
4	Development of Chongoni Rock Art World Heritage Site	1208	ONGOING		create	create
5	Rehabilitation of Blantyre Cultural Centre	1441	PENDED	Q1	EX	show
	Construction of Nutrition					

Figure 2 PSIP Process Management page

The green color indicates that it's already processed (Approved or Rejected) but orange color indicates that the extension request is not processed yet. "Approve / Withdraw Extension Request" window pops up once press the [EX] button. The person in charge (should be an economist who is in charge of the vote) will make decision of the period extension and change of TEC (Total Estimated Cost). The decision (Approve or Reject) has to be made carefully and the reason of decision has to be written in "Reason for the Decision" field. Press [Approve] or [Reject] button according to the decision.

In case of [Approve], the changes of project period (Start and End) and TEC values are reflected to the project's profile information in the database immediately. Also the change may affect the project

status. For example, if the project originally had “Ending” status, it should be changed to “Ongoing”. The status change in database is not automatic therefore it should be manually done from “Project Status” menu of the PSIP Database. And its operation should be done by an economist who is in charge of corresponding vote.

After approving or rejecting the extension request, another button [WITHDRAW] is enabled so that user can withdraw the decision. The project period and TEC information are automatically changed by withdrawing but the status change should still be manually done.

Approve Extension Request - Mozilla Firefox

192.168.37.105/psip\_process\_mgmt/approve\_extension.php?pc=1441&fy=2017

Close **Approve / Withdraw Extension Request**

**1441 - Rehabilitation of Blantyre Cultural Centre**

Vote: 180 - Ministry of Civic Education, Culture and Community Development

**Request contents**

<b>Approval Status</b>	<b>Not yet</b>
<b>Project Period</b>	<b>Original</b> From Jul 2015 To Jun 2017
	<b>Request</b> From Jul 2015 To Jun 2019
	<b>Approve</b> From Jul 2015 To Jun 2019
<b>TEC</b>	<b>Original</b> 350,000,000
	<b>Request</b> 400,000,000
	<b>Approve</b> 400,000,000
<b>Reason for Request</b>	No funding in first year and the area has been vandalised
<b>Reason for the Decision</b>	

**Notes**

- [APPROVE] / [WITHDRAW] affects the **Project Period** and **TEC** data of **FY2017/18** project record in the Database.
- After [APPROVE] / [WITHDRAW], you may **need to change the Project Status**. (i.e. ENDING->ONGOING)

REJECT the Request APPROVE the Request WITHDRAW the Decision

Figure 3 Approve / Withdraw Extension Request window

The “Approval Status” indicates “Approved” in case of the request is fully accepted but in case it’s not

fully accepted (i.e. TEC change is not allowed or End year/month is different from the requested ones), it indicates “Partially Approved”.

Note that the fiscal year of the project profile to be affected in the database is the latest one in the database but it must not be older than FY - 1 where FY is the database’s current fiscal year value. For example, if the database’s current fiscal year is set to FY2018/19, the affected record of project in the database is either FY2017/18 or FY2018/19. It means if the FY2018/19 record does not exist, FY2017/18 record will be affected. If the project does not have both FY2017/18 and FY2018/19 records, the extension request process will be failed. In such case, IT staff should help making record of either FY2017/18 or FY2018/19 by loading corresponding proposal template.

## 2.5 Collect latest Master Data info., Renew Template's Master Data, Upload Template's Master Data to Database

The meaning of “Master Data” is commonly referred data from both Excel Templates/Forms and PSIP Database. Therefore the data have to be accurate, consistent, latest and error-free, and the data in the Template/Forms and PSIP Database must always match.

The Master Data consists of information described in next table.

**Table 3 Master Data**

No.	Master data item	Sheet name	Description
1	Vote	tbl_vote	Vote code and vote name
2	MDA	tbl_mda	MDA code and MDA name, Belonging vote code
3	Donor	tbl_donor	Donor code and donor name, abbreviation
4	MGDS priority area	tbl_mgdspriority	MGDS III Priority area code and description
5	MGDS other priority area	tbl_mgdsotherarea	MGDS III Other priority area code and description
6	Sector	tbl_sector	Sector code and sector name
7	Currency	tbl_currency	Currency code, name and exchange rate to MWK
8	PBB program	tbl_budgetcode	PBB (Program Based Budget) code and name
9	PBB sub program	tbl_subbudgetcode	PBB Sub program code and name
10	District	tbl_district	District code and name, region
11	Line item	tbl_line_item	Line item code and name

The latest information should be collected by economists by getting corresponding data from related MDAs /divisions. The collected information is inputted to an Excel template. The corresponding sheet name is written in above table. Note that the code of any master data must be unique within the master data item. And the headers and sheet names must not be modified because they are used for master data recognition while the data is being uploaded to the database.



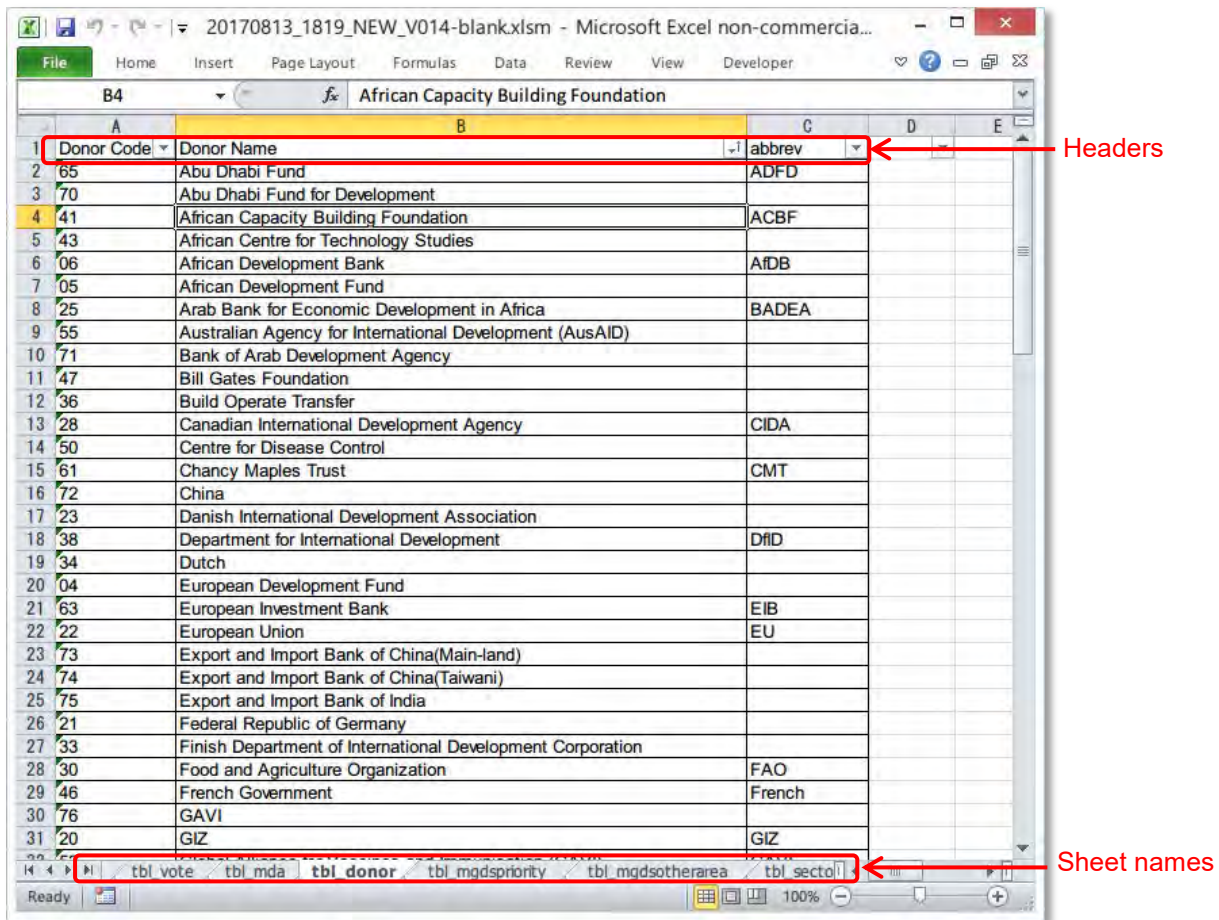


Figure 4 Master Data sheet

### 2.5.1 Loading Master Data into Database

After inputting / revising Master Data in the Excel Template, the data is loaded to the database to synchronize the contents. The relationship between the sheet names and database's table names are described in next table.

Table 4 Sheet name vs Table name

No.	Sheet name of Excel template	Table name in Database
1	tbl_vote	mst_vote
2	tbl_mda	mst_mda
3	tbl_donor	mst_donor
4	tbl_mgdspriority	mst_mgds_theme
5	tbl_mgdsotherarea	mst_mgds_priority
6	tbl_sector	mst_sector
7	tbl_currency	mst_currency
		mst_exchange_rate
8	tbl_budgetcode	mst_pbb_program
9	tbl_subbudgetcode	mst_pbb_sub_program

No.	Sheet name of Excel template	Table name in Database
10	tbl_district	mst_district
11	tbl_lineitem	mst_line_item

Use a utility `cmd_load_master.php` to load the Excel template's aster data to the Database. The steps are described below.

- (1) Transfer the Excel template to the Database
- (2) Login to the Server as psip user
- (3) Load the master data contents to the Database using `cmd_load_master.php`

Syntax: `php cmd_load_master.php year template-file`

Where “year” is target year of master data and “template-file” is the path and filename of the Excel template file on the server.

<Example>

```
[psip@psip33 ~]$ cd public_html/tload2/adm/
[psip@psip33 adm]$ php cmd_load_master.php 2018 ~/base_templates2/new.xlsm
Processing tbl_vote ... done.
Processing tbl_mda ... done.
Processing tbl_donor ... done.
Processing tbl_mgdspriority ... done.
Processing tbl_mgdsotherarea ... done.
Processing tbl_sector ... done.
Processing tbl_currency ... done.
Processing tbl_budgetcode ... done.
Processing tbl_subbudgetcode ... done.
Processing tbl_district ... done.
Processing tbl_lineitem ... done.
Start registering to the database ... done.
Duplicating mst_app_category from 2017 to 2018 ... done.
Duplicating mst_app_item from 2017 to 2018 ... done.

Finalizing all processes ...done.

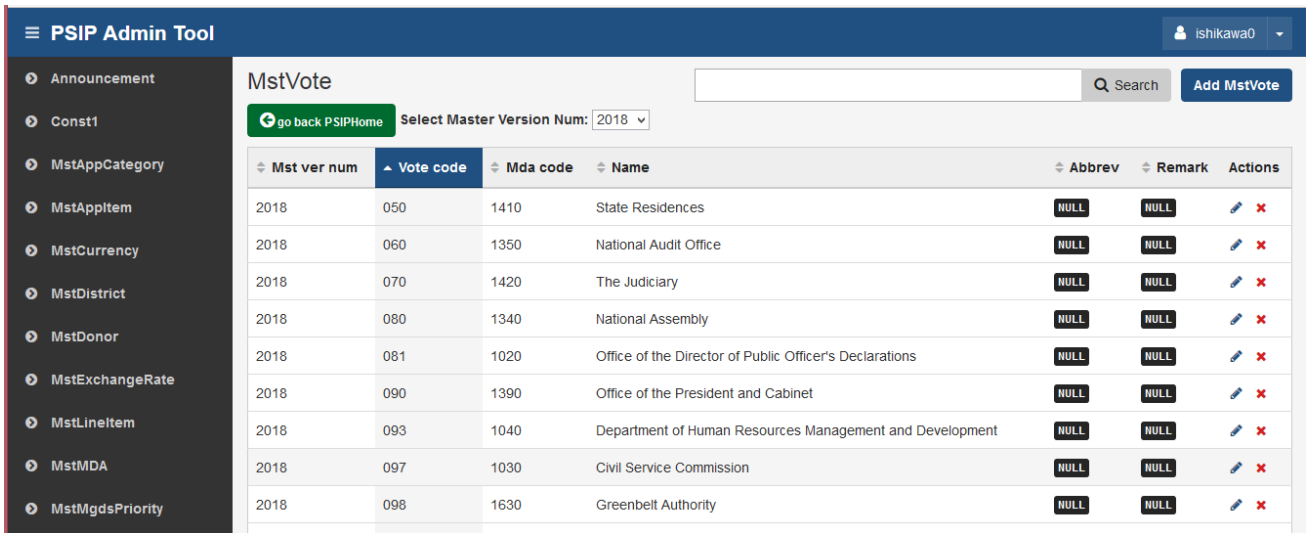
[psip@psip33 adm]$
```

This loading totally replaces the master data of specified year in the database if the data exist. But if error occurs during loading, no data is loaded at all. “mst\_app\_category” and “mst\_app\_item” are

master data used for appraisal and the data do not exist in the Excel templates, therefore the data are copied from previous year's records.

### 2.5.2 Editing master data in the Database

It is still possible to edit the master data in the Database using “PSIP Admin Tool” in PSIP Database. To use the tool, the user must login to PSIP Database as ADMIN privilege. Navigate “System Setup” → “PSIP Admin Tool” so that let editing page come out.



## 2.6 Register Vote Rewrite Spec to the Database

Because the merging and splitting of votes happen every year, the vote information of the project records in the database has to be maintained according to the changes. Of course the vote code and names have to be registered to both Excel templates and Database as explained in previous section, there still need to tell database how the existing project's vote information have to be converted to suit new fiscal year's vote structure. It is actually needed when new fiscal year's pre-filled Excel templates are generated because the pre-filled data is retrieved from previous year's records.

There is a database table “vote\_rewrite” available for defining the vote conversion rule from previous to new fiscal year. There's no particular tool to maintain “vote\_rewrite” table. The IT staff must write SQL script to insert the conversion rules into the table. Below is the specification of vote rewrite table.

Table 5 vote\_rewrite table specification

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'1234'	
3	YEAR	INT	NOT NULL	Year	2016	Year to apply
4	FROM_VOTE_CODE	VARCHAR(10)		From Vote Code	'324'	Code from
5	TO_VOTE_CODE	VARCHAR(10)	NOT NULL	To Vote Code	'320'	Code to
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

There are 2 ways of definition as described below.

(1) Specify PROJECT\_CODE, YEAR, FROM\_VOTE\_CODE and TO\_VOTE\_CODE

This way is to define project by project vote conversion rule. The definition is only applicable to the specified project.

(2) Specify YEAR, FROM\_VOTE\_CODE and TO\_VOTE\_CODE

This way is to define vote by vote conversion rule. All projects belong to FROM\_VOTE\_CODE are converted to TO\_VOTE\_CODE.

The vote\_rewrite table is only referred in “Template Generator” function (both manual and batch). Therefore the necessary records must be inserted before generating new fiscal year’s templates. The past SQL scripts remains in tools/70\_vote\_rewrite\_scripts directory for reference. Next example is the one used for FY2018/19 proposal generation.

```
/*
 *Delete all data 2018
 */
delete from vote_rewrite where
  year=2018;

/*
 *Change vote code by vote
 */
insert into vote_rewrite
(year,from_vote_code,to_vote_code,log_id)
values
(2018,'180','170',1)
;

/*
 * Change vote code by project
 */
insert into vote_rewrite
(project_code,year,to_vote_code,log_id)
values
('1183',2018,'370',1),
('1184',2018,'370',1),
('1248',2018,'370',1),
('1917',2018,'275',1),
('1937',2018,'275',1),
('1583',2018,'170',1),
('1871',2018,'170',1),
('1914',2018,'170',1),
('1855',2018,'170',1),
('1913',2018,'170',1),
('1582',2018,'170',1),
('1912',2018,'170',1),
('1948',2018,'170',1),
('1134',2018,'343',1),
('1795',2018,'343',1),
```

```

('1342',2018,'343',1),
('1954',2018,'120',1),
('1955',2018,'120',1),
('1971',2018,'250',1),
('1969',2018,'250',1),
('1968',2018,'240',1),
('1973',2018,'270',1)
;

```

## 2.7 Collect Approved Budget Info., Collect Donor funded Projects' Info, Revise Budget/Status data in Database

The final approved budget decided in the parliament must be reflected to the PSIP Database. Also the donor funded project's information has to be inputted to the Database as well. Such information should be collected by economists and data input has to be done by IT staff.

To edit the project's approved budget and status, use "Project Status & Budget Transition" page. The page can be reached by PSIP Management → Process Management → Show Budget Transition, press [create] button so that Project Status & Budget Transition screen opens as seen below.

Project	Items	On Submission	PSIP Recommendation Case A	PSIP Recommendation Case B	PSIP Recommendation Case C	PSIP Recommendation Case D	Allocation Adjustment	Approved Budget	Mid Year Revision
e nt P)	Status	ONGOING	ONGOING	ONGOING	ONGOING	ONGOING	* ONGOING	ONGOING	
	Part1	0							
	Part2	250,000,000	250,000,000	150,000,000	150,000,000	100,000,000	* 150,000,000	150,000,000	
	Total	250,000,000	250,000,000	150,000,000	150,000,000	100,000,000	* 150,000,000	150,000,000	0
i n t	Status	ONGOING	ONGOING	ENDING	ENDING	ENDING	* PENDED	ONGOING	
	Part1	0						100,000,000	
	Part2	105,900,000	105,900,000	0	0	0	*	100,000,000	
	Total	105,900,000	105,900,000	0	0	0	*	200,000,000	0
u n d s t r i c t i o n	Status	ONGOING	ONGOING	ONGOING	ONGOING	ONGOING	* ONGOING	ONGOING	
	Part1	0							
TOTAL		TOTAL On Submission	TOTAL Case A	TOTAL Case B	TOTAL Case C	TOTAL Case D	TOTAL Allocation Adjustment	TOTAL Approved Budget	TOTAL Mid Year Revision

Figure 5 Project Status & Budget Transition screen

The approved budget / status data have to be inputted into "Approved Budget" column of the screen. There are 2 ways to input the data. One is "Individual project edit" which can be edited only 1 project at once and the other is "Multi-projects edit" which can edit multiple projects' data with list form. Refer to "PSIP Database (Ver. 4) User Manual For PSIP Unit" for more details.

## 2.8 Switch Database's FY

This is to switch the PSIP Database's fiscal year to new fiscal year. It affects several parts of PSIP

Database. At first, the submission progress table will be cleared because it shows the submission progress of new fiscal year's templates. And all other screens begin to show the information of new fiscal year as default. As for the Loader and Generator, it's getting ready to generate / load the new fiscal year's templates.

It's very manual to switch the fiscal year of PSIP Database -- just issue an SQL to the special table "psip\_operation". For example, to switch the PSIP Database's fiscal year to 2019, issue next SQL command.

```
update psip_operation set current_year=2019
```

No "where" clause is required because there is only one record existed. Be careful of the timing because this will affect the PSIP Database's behavior very much.

## 2.9 Set the base templates to the server

Before starting template generation, the latest blank templates must be uploaded and set as base template. A directory "base\_templates2" holds the all base template files and necessary symbolic links. Next table summarizes all template files and links. Note that all templates must be BLANK (Not pre-filled).

**Table 6 Base templates (in base\_templates2 directory)**

No.	Template file name as of Aug 2017	Symbolic link	Usage
1	20170813_1819_NEW_V014-blank.xlsm	new.xlsm	New Proposal templates
2	20170813_1819_ONGOING_V014-blank.xlsm	ongoing.xlsm	Ongoing Proposal templates
3	20170813_FormQ_PrjMtrgRep_v006_BLANK.xlsm	qtreport.xlsm	Quarterly Progress Report forms
4	ProFinMgt-InfoTool_v047.xlsm	pfm-it.xlsm	PFM-IT forms
5	appraisal_summary1-20170407.xlsx	appraisal-summary1.xlsx	Excel download of Appraisal Summary
6	appraisal_summary2-20170407.xlsx	appraisal-summary2.xlsx	Excel download of Appraisal Summary
7	process_summary_vote-20170715.xlsx	process-summary.xlsx	Excel download of PSIP Process Summary (by Vote)
8	project_summary1-20170128.xlsx	project-summary.xlsx	Excel download of Project Summary [Form 1]
9	project_list-20170825.xlsx	project-list.xlsx	Excel download of Project List

If an Excel template is updated, the corresponding base template must be replaced by following steps.

(1) Transfer the updated template file to the server. The destination location is `~/base_templates2`

(2) Confirm the updated file exists in `base_templates2` directory, re-link the symbolic link.

Following example assumes the updated template's name is "20180729\_NEW\_V020-blank.xlsm".

<Login as psip user>

```
[psip@pusip33 ~]$ cd base_templates2
```

```
[psip@pusip33 base_templates2]$ ln -sf 20180729_NEW_V020-blank.xlsm new.xlsm
```

<Confirm>

```
[psip@pusip33 base_templates2]$ ls -l
```

:

```
lrwxrwxrwx 1 psip psip 33 Jul 30 16:28 new.xlsm -> 20180729_NEW_V020-blank.xlsm
```

:

<The old "New" template file can be removed>

The syntax of "ln" command is as below.

Syntax: <code>ln -sf <i>template-file-name</i> <i>link-file-name</i></code>
---

The option `-sf` means "Symbolic link" and "Force".

## 2.10 Generate Templates/Forms & Test

There are 2 ways of template generation. One is manual way and the other is batch way.

The manual way is useful when one or few templates are generated or some other special cases such as repairing templates, generating old year's templates, generating completed / rejected project's template and so on. The template generator in manual way can be reached by "PSIP Management" → "Template Generator". This requires PSIP privilege or ADMIN privilege.

<< Go to Menu

## Generate Project Forms

Please select a Vote and Template Type. And then select project(s) and press [Download].

**Vote selection**  
 120 - Ministry of Local Government and Rural Development

**Template Type**  
 New  Ongoing: As of FY Latest  
 Quarterly Report: For FY 2017  
 PFM-IT: For FY 2017

**Download**  
  
 Force zip

**Purpose of Generation**  
 Generate for Circular  Repair Excel Form

**Display option**  
 New  OnGoing  Pipeline  Pended  Ending  Terminated  Completed  Rejected  Undefined  
 FY2017/18 submitted projects Only

Select

Select	Project Code	Fiscal Year	Start	End	Status	Project Title
<input type="checkbox"/>	1022	2017	201607	202106	ONGOING	Development of the Rural Growth Centres
<input type="checkbox"/>	1073	2017	201607	202106	ONGOING	Development of Urban and Rural Markets
<input type="checkbox"/>	1110	2017	200910	201806	ONGOING	Rural Livelihoods and Economic Enhancement Programme
<input type="checkbox"/>	1175	2017	201707	202406	PIPELINE	Local Economic Development
<input type="checkbox"/>	1935	2017	201707	201906	NEW	Construction of District Council's Office Buildings
<input type="checkbox"/>	1936	2017	201707	202206	NEW	Sports Stadium Development
<input type="checkbox"/>	1997	2017	201405	201603	NEW	Construction of Chiweta Mlowe Road
<input type="checkbox"/>	1998	2017	201405	201603	NEW	Programme of construction of stadiums at District Headquarters
<input type="checkbox"/>	1999	2017	201405	201603	NEW	Construction of Mzuzu Civic Office

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Figure 6 Template Generator (manual way)

The other way “batch way” can be reached by “System Setup” → “Template Generator (Batch)”. It requires ADMIN privilege.



<< Go to Menu

## Generate Project Forms (Batch)

Adjust below conditions and press [Submit] button. Submit

Last template generation: 14 Aug 2017 22:35 (Result: Success) Show result

---

**1. Fiscal Year**

Default FY2018/19  
 Change FY

**2. Destination directory**

Default /home/psip/public\_html/psip/2018-19  
 Change

**3. Submission Deadline**

Default 31-Aug-2017  
 Change

**4. Templates to be generated**

**New Project Proposal for FY2018/19**

Project status in FY2017/18

New  Ongoing  Ending  Pipeline  Pended

**Ongoing Project Proposal for FY2018/19**

Project status in FY2017/18

New  Ongoing  Ending  Pipeline  Pended

**Quarterly Progress Report for FY2017/18**

Project status in FY2017/18

New  Ongoing  Ending  Pipeline  Pended

**PFM-IT for FY2017/18**

Project status in FY2017/18

New  Ongoing  Ending  Pipeline  Pended

Figure 7 Template Generator (Batch)

This tool generates Excel templates for specified F/Y. Select/set the items (Fiscal year, Destination, Deadline), select template type and status. The tool will generate all the Excel Templates for

specified projects. The default settings are just fit for full set of Templates/Forms generation. In normal case, any change from default settings is not required and the expected action is just to press [Submit] button.


After pressing [Submit] button, the screen is automatically changed to “Generate Project Forms (Monitor)”. The screen indicates the generation job summary and its progress with a progress bar as seen below.

<< Go to Menu

### Generate Project Forms (Monitor)

The Template generation job is ongoing as below. Press [Refresh] to update the progress.

Job ID - Job Name	19 - TEMPGEN
Description	Template generation job on 17 August 2017, 15:25:06
Date & Time	[Start] 17 Aug 2017 15:25
Steps: Done / Total (%)	500 / 1036 (48.3% completed)
Status	In Progress
Result	

  
 Refresh

---

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Figure 8 Job monitor of Template Generator (Batch)

Because the generation job is running as a background process, the screen can be closed anytime. The generation job is still running and you can get back to this monitoring screen by navigating “System Setup” → “Template Generator (Batch)”.

The directories that the generated templates saved are:

~/public\_html/psip/2018-19/*template-type-directory*

The year part “2018-19” is changed according to the Database’s fiscal year and “*template-type-directory*” varies in the directory name according to the template types. Next table shows the template type and corresponding directory name.

Table 7 Template name vs Directory name

Template Type	Directory Name
New Project Proposal (Blank)	Project_Templates_NEW
New Project Proposal (Pipeline)	Project_Templates_NEWP
Ongoing Project Proposal	Project_Templates_ONG
Quarterly Progress Report Form	Project_Templates_QT
PFM-IT Form	Project_Templates_PFM

Under such template type dependent directories, the templates are stored in the vote code directory such as “050\_001” where “005” is the vote code and “\_001” is the common suffix. For example, an ongoing project which belongs to the Ministry of Health (vote code is 310), the template of FY2018/19 will be saved into the directory “~/public\_html/2018-19/Project\_Templates\_ONG/310\_001”.

In batch way, the previously existed directories are automatically renamed by adding “\_old” and prevented to be overwritten (i.e. Project\_Templates\_NEWP → Project\_Templates\_NEWP\_old). But the previously existed “\_old” directories are removed automatically.

The file name of the templates/forms follows next format.

`<year>_<vote>_<type>_<project title>.xlsm`

The meaning of each part is as below.

<code>&lt;year&gt;</code>	In case of FY2018/19, this part is “1819”.
<code>&lt;vote&gt;</code>	3 digits vote code (i.e. 070)
<code>&lt;type&gt;</code>	One of NEW, ONGOING, QTREPORT, PFM-IT
<code>&lt;project title&gt;</code>	Maximum 50 letters and spaces are converted to underscore (_).
<code>.xlsm</code>	Common file extension (Excel macro format file)

The generated templates have to be downloaded and tested accordingly.

Note that the creation of Project\_Templates\_NEW is not automatic. It must be manually created and the symbolic link to ~/base\_templates2/new.xlsm must be created manually. See follows for the operation. The explanation assumes for the FY2018/19 PSIP operation.

```
<Login as psip user to PSIP Production server>
[psip@pusip33 ~]$ cd public_html/psip/2018-19
[psip@pusip33 ~]$ mkdir Project_Templates_NEW
[psip@pusip33 ~]$ cd Project_Templates_NEW
[psip@psip33 Project_Templates_NEW]$ ln -sf ~/base_templates2/new.xlsm NEW_BLANK.xlsm
```

This must be done every year before Circular #1 starts.

## 2.11 Announce Circular#1 on Portal

This requires modifications of PSIP Portal sources. At first, the front page must have following announcement and links.

**Malawi PSIP Portal**  
Ministry of Finance, Economic Planning and Development

PSIP  
FY2018-19 Circular 1  
PSIP Documents  
PSIP Preparation Handbook

PSIP Database  
[Login to PSIP Database](#)  
DB User Manual

Reports  
MGDS  
MDGs Report  
Economic Report  
Poverty Analysis  
Technical  
Report(2014-)

References  
Project Management

Others  
NewsLetter

**Welcome to Malawi PSIP Portal.**

**General Information**

\* **PSIP Database 4.0** is now available! Click **\*HERE\*** to login.

\* **2018/19 PSIP Circular** is available! Click **\*HERE\*** to download. To submit required templates or formats, first please [login to PSIP Database](#), go to 'Download Forms' from the left menu and select the forms you want to download.

\* To obtain an user account, please download and fill in the [user registration form](#) and hand it in to the PSIP Section or Email it to psipprojects@gmail.com.

\* If you have any question or concern, or you do not remember Login ID or password, please feel free to contact PSIP Section on 01-788-888 (Ext: 150/164) / 01-788-278(Direct) or psipsubmissions@gmail.com.

**Actual status of Proposal Template submission by votes**

**Submitted/Uploaded:** indicates the number of proposal templates submitted to PSIP section and uploaded to PSIP Database

NO	Vote	Vote Code	Submitted/Uploaded
1	050	State Residences	0

After clicking one of the Link1, page will be move to next.

**Malawi PSIP Portal**  
Ministry of Finance, Economic Planning and Development

PSIP  
FY2018-19 Circular 1  
PSIP Documents  
PSIP Preparation Handbook

PSIP Database  
[Login to PSIP Database](#)  
DB User Manual

Reports  
MGDS  
MDGs Report  
Economic Report  
Poverty Analysis  
Technical  
Report(2014-)

References  
Project Management

Others  
NewsLetter

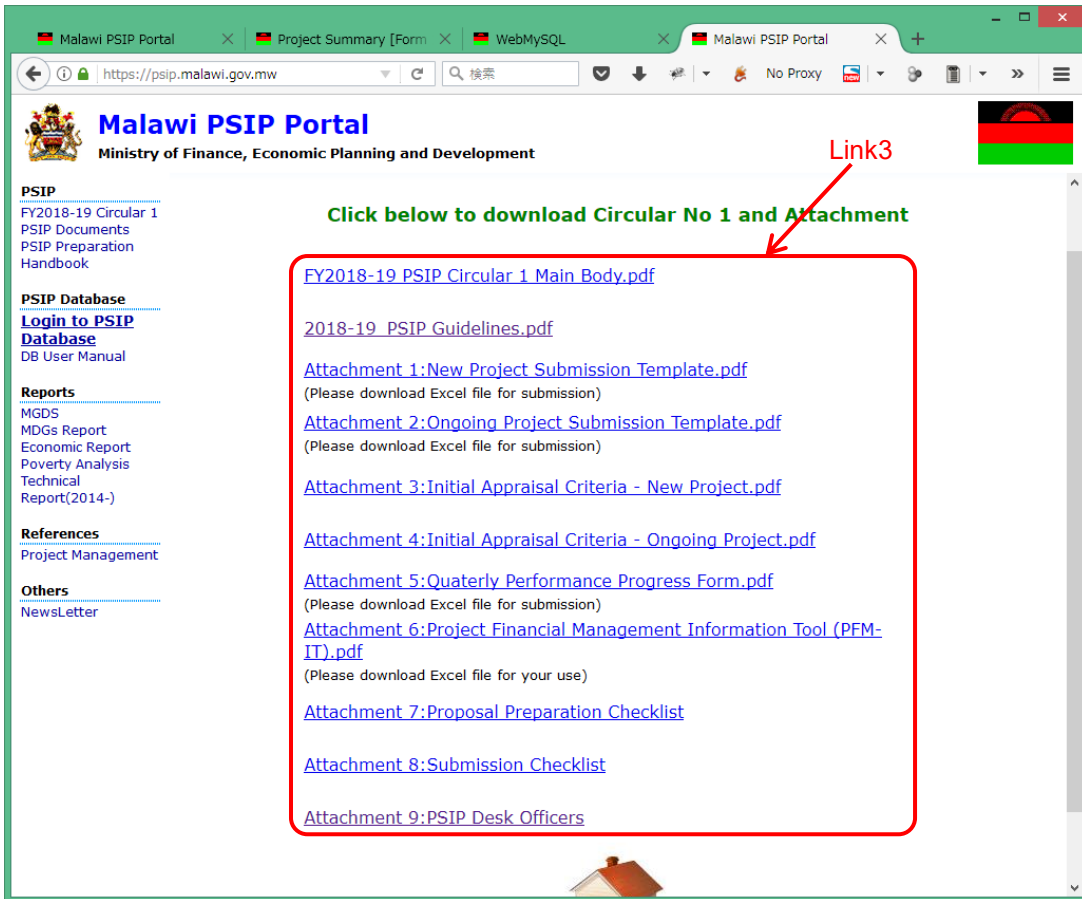
**PSIP Database**

[PSIP Circular #1 / PSIP Preparation Guidelines](#)

**Attention:**  
**The deadline of the template submission for 2018/19 is 31st Aug, 2017 (Thu).**

For more information, contact EP&D PSIP UNIT  
on 01-788-888 or 01-788-278  
psipsubmissions@gmail.com

After clicking the Link2, page will be move to next.



Next table summarizes the source files which contains above announcements and links.

No.	Announcement/Link	Directory (from psip's home directory)	Source file
1	Announcement1 (with Link1)	public_html	settings.ini
2	Link1 (Side menu)	public_html	navi.php
3	Announcement2	public_html/psip/2018-19	index.php
4	Link2	public_html/psip/2018-19	index.php
5	Link3	public_html/psip/2018-19/Circular	index.php
6	Circular#1 documents (PDF, Excel)	public_html/psip/2018-19/Circular	N.A.

Note: 2018-19 varies according to the Databases fiscal year setting.

The files have to be copied and revised every year. For example, in FY2019/20, an IT staff has to do followings.

- (1) Login as psip user.
- (2) Copy contents of “2018-19” to “2019-20” directory.
 

```
[psip@pusip33 ~]$ cd public_html/psip
[psip@pusip33 psip]$ cp -r 2018-19 2019-20
```
- (3) Edit index.php file in 2019-20 directory accordingly.
- (4) Remove old Circular documents and copy new Circular documents into “Circular” directory.

```
[psip@psip33 psip]$ cd
[psip@psip33 ~]$ cd public_html/psip/2019-20/Circular
[psip@psip33 psip]$ rm *.pdf *.xlsx
[psip@psip33 psip]$ cp documents-source-location/* .
```

- (5) Edit index.php file in Circular directory accordingly.
- (6) Edit settings.ini and navi.php in public\_html

## 2.12 Load submitted Templates to Database

The templates submitted by MDAs must immediately be loaded to the database. There are 3 ways to do it such as manual way (Template Loader), drag & drop way (Web-based Submission) and another drag & drop way (Drop into shared folder). The differences between manual way and drag & drop ways are summarized below.

- (1) Manual way can accept any fiscal year's template but drag & drop way only accepts Database's fiscal year for New/Ongoing proposal templates and Database's fiscal year - 1 for Quarterly Progress Report forms.
- (2) Manual way can know the result (success/fail) immediately but for drag & drop way, the result can be known by checking the submission log.
- (3) Manual way can check the differences of contents between previous loading and new loading before registering to the database. But drag & drop way is unable to do it beforehand.

### 2.12.1 Loading Templates using Template Loader

The page can be reached by PSIP Management → Template Loader.



<< Go to Menu

### Upload the template file

Select a file to upload and press [Load the file] button.

Choose File No file chosen

Load the file

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Figure 9 Template Loader

The file to be uploaded is located in your local PC or shared folder and it's specified from [Choose File] button. After specifying the file, press [Load the file] to load. Next screen comes out if the loading is succeeded.

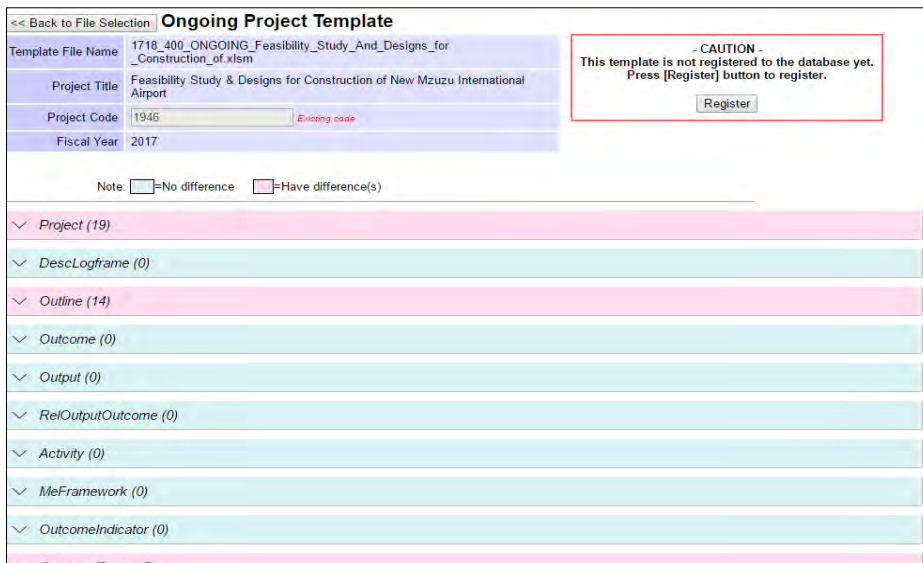


Figure 10 Loading file comparison screen

Each bar corresponds to the database table and pink color indicates there are differences between loaded data and database contents, and blue color indicates there is no difference. The detail can be seen by clicking the bar. After confirming the contents, press [Register] button to register the loaded data to be a new or updated project record.

### 2.12.2 Loading Templates using Web-based Submission

The page can be reached by PSIP Management → Web-based Submission.

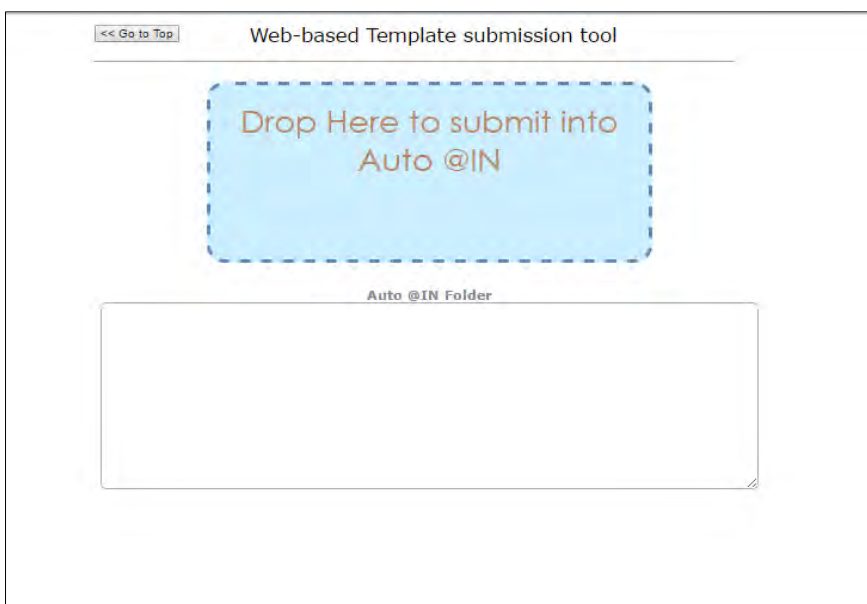


Figure 11 Web-based Submission

The Template file(s) can be drag & drop into the upper rounded rectangular box. After the files are uploaded, the file names appear in the below rectangular box. After loading to the database is completed, the file disappears from the box. The result of the loading can be known by checking the submission log which can be reached by PSIP Proposal → Submission Status → Show submission log.

Mark	Date&Time	Result	Mode	Type	Submit / Load	Errors	Message	Project Code	Project
<input type="checkbox"/>	2017-08-15 15:13		Manual	NEW	Submit	0			REHABILITATION OF DEL BLOCKS AT NATIONAL S
<input type="checkbox"/>	2017-08-08 09:55	Success	Manual	QTR	Load			1765	Development of a robust Quality Assurance, Accre Metrology (SQAM) Infrastr
<input type="checkbox"/>	2017-08-08 09:55	Success	Manual	QTR	Load			1765	Development of a robust Quality Assurance, Accre Metrology (SQAM) Infrastr
<input type="checkbox"/>	2017-08-08 09:53	Success	Manual	QTR	Load			1765	Development of a robust Quality Assurance, Accre Metrology (SQAM) Infrastr
<input type="checkbox"/>	2017-07-28 17:01	Success	Manual	NEW	Load	50		2013	Programme for Construc Planning Commission A
<input type="checkbox"/>	2017-07-28 16:48	Error	Auto	NEW	Submit	50	Error: Too many parameters in commanmd line.		Programme for Construc Planning Commission A
<input type="checkbox"/>	2017-07-24 16:45	Success	Auto	NEW	Load	57		2011	Construction of New BT F
<input type="checkbox"/>	2017-07-24 16:45	Success	Auto	NEW	Submit	57			Construction of New BT F
<input type="checkbox"/>	2017-07-24 16:40	Success	Auto	NEW	Load	57		2010	Construction of New BT F

Figure 12 Submission log screen

If the Result column indicates “Error” with red color, the loading is failed. The submission log records affects the submission status appears in PSIP Portal and “Project Template Submission Status” screen. In case the particular record(s) of submission log should be removed due to unexpected submission status, ADMIN privileged users can do it from submission log screen. To remove the records, give mark the desired record(s) and press [Delete marked records].

This submission log deletion is not only applicable for Web-based Submission but also applicable to all other loading ways.

### 2.12.3 Loading Templates using Shared folder

By doing drag & drop into a Windows shared folder provided by PSIP Database, template loading can be done as same condition as Web-based Submission. The shared folder name that the templates have to be dropped is “50\_Auto @IN”.

In any ways, the templates will be automatically moved to another directory “51\_Auto @Success” or “52\_Auto @Fail” according to the result. Actually the templates are classified based on the fiscal year, template type (NEW/ONGOING/QT) and vote and saved into appropriate folder. For example, a



template is for FY2018/19 Ongoing proposal submission and the vote belongs to is “275 - Subvented Organizations”, the folder tree “2018/ONGOING/275-Subvented\_Organizations” is automatically created and the template is saved into the folder. This is applicable to all 3 ways.

## 2.13 Support Economists on using Database functions

There are several functions that can help economists’ activities. The IT staffs have to help in order to make their work efficient and accurate. Next section introduces the reporting capability of PSIP Database. And following sections introduces administrative utilities which can be used for removing project information from the database, rolling back the project record history.

### 2.13.1 Make detail reports and summary reports

From the side menu, navigate Reports → Project List so that you can make project detail reports and summary report as well.

**Project Summary Report**  
List summary of all the registered projects to PSIP Database

Please select the year and report type.

MFY: 2017/18

**Summary Report Project List**

List Projects:	by: sector	<input type="checkbox"/> TEC <input type="checkbox"/> donor	Show	Excel
Project List 5 years funds:	by All Responsible Ministries		Show	Excel

**Summary Resource Allocation**

Resource Allocation:	by: vote	Show	Excel
----------------------	----------	------	-------

Figure 13 Project Summary Report

From this page, several types of report can be generated and to be downloaded as Excel file. Below is the example of Excel formatted report “Project Details by Sector”.

Projects for 2017/2018 by Sector Total Projects 152								
[001 Agriculture] 12 Projects				Submission			Appr	
NO	Project Name	Project Period	Status	Part I	Part II	Total	Part I	Pa
1	[1044] Aquaculture Development Project (ADP)	Jul/2012 - Jun/2017	ONGOING	0	250,000,000	250,000,000	0	150
2	[1163] Malawi Irrigation Development Support Programme (MIDSUP)	Jul/2009 - Jun/2016	ONGOING	0	105,900,000	105,900,000	100,000,000	100
3	[1236] Green Belt Initiative	Jul/2012 - Jun/2018	ONGOING	0	1,806,789,000	1,806,789,000	0	2,000
4	[1378] Small Farms Irrigation Project - Phase II (SFIP II)	Jul/2013 - Jun/2018	ONGOING	0	2,332,500,000	2,332,500,000	5,000,000,000	500
5	[1508] Agricultural Extension and Advisory Services Infrastructure Project	Jul/2015 - Jun/2019	ONGOING	0	775,600,000	775,600,000	0	150
6	[1523] Shire Valley Irrigation Project	Jan/2015 - Dec/2021	ONGOING	0	60,000,000	60,000,000	15,000,000,000	100

Please refer to corresponding user's manual for other useful functions.

### 2.13.2 Remove project information from the database

Below example is to remove all information about project code 1234 of FY2018/19 from the database.

```
<Login to Production Server as psip user>
[psip@pusip33 ~]$ cd public_html/tload2/adm
[psip@psip33 adm]$ php cmd_remove_project.php 1234 2018
3 record(s) removed.
[psip@psip33 adm]$
```

Be careful for using this utility because there is no confirmation before removing and no way to take it back.

### 2.13.3 Roll back the project history in the database

Project records are managed by history number. Every project can have one or more histories in every fiscal year according to the updates of the project proposal / progress information. The history number of the latest available record is 0 (zero) and 1 generation older record's history number is 1 (one), and 2 generations back is 2 (two) and so on. The special history number -1 means "Loaded but not used". The history number -1 appears when a template is loaded but not registered ([Register] button is not pressed in Template Loader screen). The meaning of "roll back history" is to shift the specified history number to 0. For example, in case that there are 5 histories (0 - 4) and rollback the history number 2, the effect is to change the history number 2 → 0, 3 → 1 and 4 → 2.

Below example is to roll back the history of project code 1234 of FY2018/19. The target history number is 1. This operation is usually be done when a loading is to be cancelled.

<Login to Production Server as psip user>

```
[psip@pusip33 ~]$ cd tools/ 50_rollback_history
[psip@psip33 50_rollback_history]$ php rollback_history.php 1234 2018 1
Removing records from achievement... done.
Removing records from contact... done.
Removing records from cost_matrix... done.
:
Updating project_id of records in app_score_resultoriginal... done.
Updating project_id of records in qt_report... done.
Change hist_num from 1 to 0 in project table ... done.
[psip@pusip33 ~]$
```

Be careful because there is no confirmation and no way to take it back.

#### 2.13.4 Generate database table creation script from the table definition (Excel file)

There is a utility to generate the “CREATE TABLE ...” script by reading the table’s specification written in Excel format Data Dictionary file. The usage of the utility is as below.

```
usage: php generate_script.php [-u] file-path sheet-name [table-option]
options
  -u      Generate unique constraint option for natural keys.
```

Followings are the example to generate the table creation script for “Job, Job\_Step” sheet of PSIP\_DB-Dictionary\_Ver.4.00.01-20170811-01.xlsx.

<Login to Production Server as psip user>

```
[psip@psip33 ~]$ cd tools/20_db_maintenance_scripts
[psip@psip33 20_db_maintenance_scripts]$ php generate_script.php -u
~/tmp/PSIP_DB-Dictionary_Ver.4.00.01-20170811-01.xlsx "Job, Job_Step" "ENGINE=InnoDB DEFAULT
CHARSET=utf8 ROW_FORMAT=DYNAMIC"
```

<Below is the output of this execution>

```
DROP TABLE IF EXISTS job;
CREATE TABLE job (
  id          INT PRIMARY KEY AUTO_INCREMENT,
  job_name    VARCHAR(200) NOT NULL,
  job_desc    VARCHAR(2000),
  schedule    VARCHAR(200),
```

```

os_user          VARCHAR(20),
max_duration     INT,
steps            INT,
progress         INT,
pause            VARCHAR(5),
status           VARCHAR(5),
result           VARCHAR(5),
start_dtime      VARCHAR(20),
finish_dtime     VARCHAR(20),
ts               TIMESTAMP,
log_id           INT
) ENGINE=InnoDB DEFAULT CHARSET=utf8 ROW_FORMAT=DYNAMIC;

DROP TABLE IF EXISTS job_step;
CREATE TABLE job_step (
  id              INT PRIMARY KEY AUTO_INCREMENT,
  job_id          INT NOT NULL,
  odr             INT,
  level           INT,
  cmd             TEXT,
  status          VARCHAR(5),
  exit_code       VARCHAR(5),
  message         TEXT,
  start_dtime     VARCHAR(20),
  finish_dtime    VARCHAR(20),
  ts              TIMESTAMP,
  log_id          INT,
  UNIQUE (job_id, odr)
) ENGINE=InnoDB DEFAULT CHARSET=utf8 ROW_FORMAT=DYNAMIC;

```

### 3 Monitoring the sever health

It is needed to keep server stable and being health. This chapter describes how to monitor the server health. It's expected to perform the health checking at least one a week. The actual steps of health checking by each server are described in following sections.

#### 3.1 Monitoring Physical Server's health

The monitoring items of Physical Server's health are as below.

- Disk space usage including the external USB HDD
- Backup log abnormality
- RAID disk status
- UPS status

##### 3.1.1 Checking the disk space usage including the external USB HDD

Do followings.

- (1) Login as root user to the Physical Server (10.1.99.152).

```
[root@psip30 ~]#
```

- (2) Mount the external USB HDD

```
[root@psip30 ~]# mount /mnt-ext-hdd
```

```
[root@psip30 ~]#
```

- (3) Check the disk space usage with df command

```
[root@psip30 ~]# df
```

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
/dev/mapper/vg_psip10-LogVol01	952383436	334319972	569685200	37%	/
tmpfs	4004432	88	4004344	1%	/dev/shm
/dev/sda1	495844	40193	430051	9%	/boot
/usr/local/share/iso/CentOS-6.5-x86_64-bin-DVD1.iso		4363088	4363088	0	100%
/mnt/centos-iso					
/dev/sdb1	976726876	713540372	263186504	74%	/mnt/ext-hdd

```
[root@psip30 ~]#
```

The important lines are highlighted. The 1<sup>st</sup> line is an OS's main disk space and the usage must be managed below 80%. The usage of this disk space is rather higher than other servers because this server disk space contains the other servers' virtual disk images. The 2<sup>nd</sup> line is the external USB HDD. It is used for backup of all servers' disk spaces. This usage must be managed below 90%. If it exceeds 90%, the backup strategy must be reconsidered or purchase much bigger volume USB HDD (Currently it's 1TB).

- (4) Unmount the external USB HDD

```
[root@psip30 ~]# umount /mnt/ext-hdd
```

```
[root@psip30 ~]#
```

### 3.1.2 Checking the backup log abnormality

Do followings.

```
[root@psip30 ~]# tail -20 /var/log/daily_backup.log
stty: standard input: Inappropriate ioctl for device
stty: standard input: Inappropriate ioctl for device
stty: standard input: Inappropriate ioctl for device
Warning: Using a password on the command line interface can be insecure.
stty: standard input: Inappropriate ioctl for device
stty: standard input: Inappropriate ioctl for device
stty: standard input: Inappropriate ioctl for device
backup completed at 2017/08/26 01:14:36
backup started at 2017/08/27 01:05:01
stty: standard input: Inappropriate ioctl for device
stty: standard input: Inappropriate ioctl for device
stty: standard input: Inappropriate ioctl for device
stty: standard input: Inappropriate ioctl for device
stty: standard input: Inappropriate ioctl for device
Warning: Using a password on the command line interface can be insecure.
stty: standard input: Inappropriate ioctl for device
stty: standard input: Inappropriate ioctl for device
stty: standard input: Inappropriate ioctl for device
stty: standard input: Inappropriate ioctl for device
backup completed at 2017/08/27 01:31:53
[root@psip30 ~]#
```

This is to display last 20 line of the log file `/var/log/daily_backup.log`. During the lines “backup started ...” and “backup completed ...” some warning messages appear but these can be ignored. If you found other messages, you must investigate the cause and fix it.

### 3.1.3 Checking RAID disk status (using `omreport` command)

This is done by using a command `omreport` which is installed as a part of OSMA (OpenManage Server Administrator). See Server Setup Manual for more details about the installation.

```
[root@psip30 ~]# omreport storage pdisk controller=0 | grep -i stat
Status                : Ok
State                  : Online
Power Status           : Spun Up
Status                 : Ok
State                  : Online
```

```
Power Status          : Spun Up
Status                : Ok
State                 : Ready
Power Status          : Spun Up
[root@psip30 ~]#
```

These output lines are OK. If you found some other words such as “Critical” or “Degraded”, you must investigate the cause and fix it. Currently there are 2 physical disks and 2 of them are working as RAID 1 (mirroring) and the rest one is in hot standby. See backup chapter for more details.

### 3.1.4 Checking RAID disk status (using GUI utility)

Web based server monitoring utility OPENMANAGE is available. Login from next URL.

<https://10.1.99.152:1311/>

The user name is root and the password is root’s password.

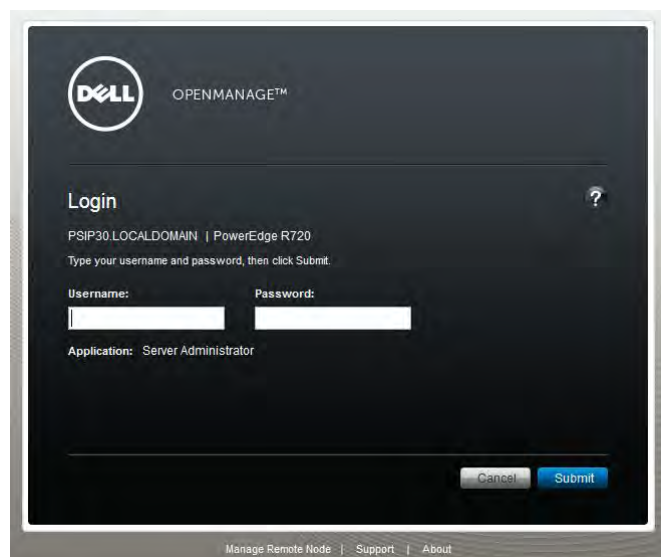


Figure 14 OSMA login screen

The main concern is the health of disks. It can be seen by drilling down to Storage→PERC H710 Mini→Connector 0 (RAID)→Physical Disks. Next example shows all disks are OK.

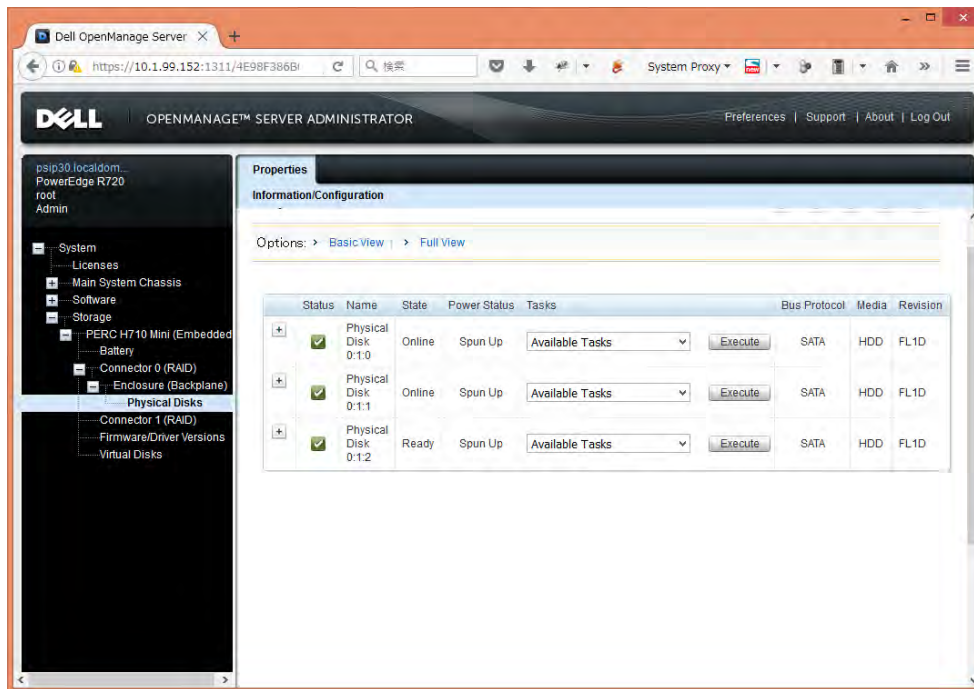


Figure 15 OSMA physical disk page

2 disks (0:1:0 and 0:1:1) organize RAID1 (Mirror) and another disk (0:1:2) is ready for hot standby.

### 3.1.5 Replacing a disk drive

When a trouble on disk drive happens, the hot standby disk will take place instead of the spoiled disk. In such case, the administrator has to replace the spoiled disk as soon as possible. This section describes how to replace the disk drive.

(1) Take the spoiled disk offline.

There are 2 ways. One is command line base and the other is GUI base.

➤ Command line base

<Login to Physical server as root>

<Below is an example to take disk 0:1:1 to offline>

```
[root@psip30 ~]# omconfig storage pdisk action=offline controller=0 pdisk=0:1:1
```

<Confirm the result>

```
[root@psip30 ~]# omreport storage pdisk controller=0 pdisk=0:1:1
```

```
[root@psip30 ~]# omreport storage pdisk controller=0 pdisk=0:1:1
```

```
Physical Disk 0:1:1 on Controller PERC H710 Mini (Embedded)
```

```
Controller PERC H710 Mini (Embedded)
```

```
ID : 0:1:1
```

```
Status : Ok
```

```
Name : Physical Disk 0:1:1
```

```
State : Offline
```



Power Status : Spun Up  
 Bus Protocol : SATA  
 Media : HDD  
 :

➤ GUI Base

Login to OPENMANAGE and navigate to Storage→PERC H710 Mini→Connector 0 (RAID)→Physical Disks. Select “Offline” from Available Tasks and press [Execute].

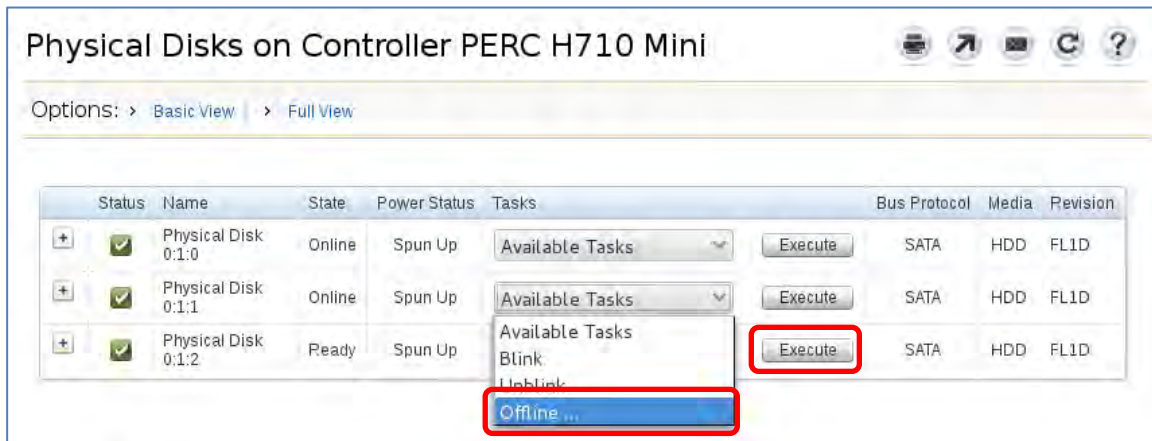


Figure 16 OPENMANAGE: Disk offline

- (2) Replace the spoilt disk with spare disk on the server machine.
- (3) Reboot the server and press **Ctrl+R** to select “Run Configuration Utility” in BIOS startup screen.

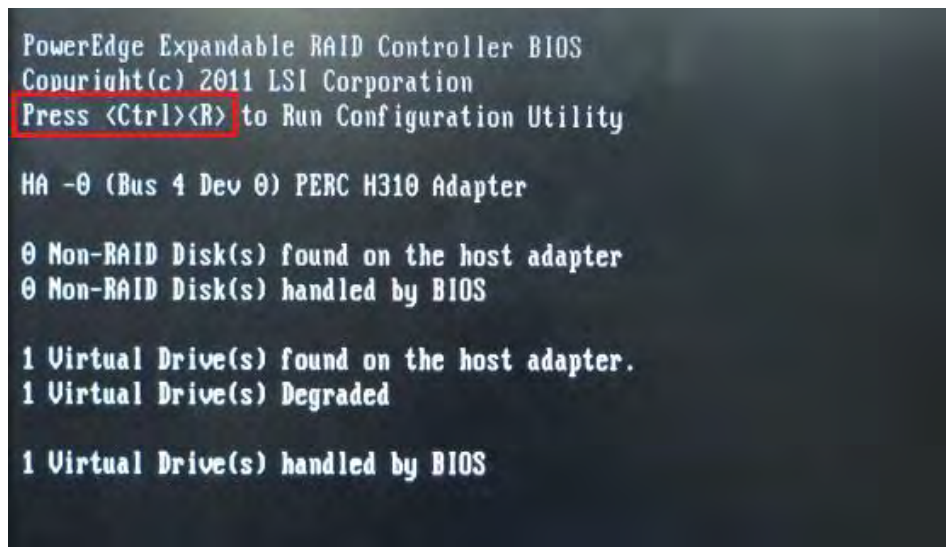


Figure 17 Dell Server BIOS startup screen

- (4) Move to “PF Mgmt” tab.

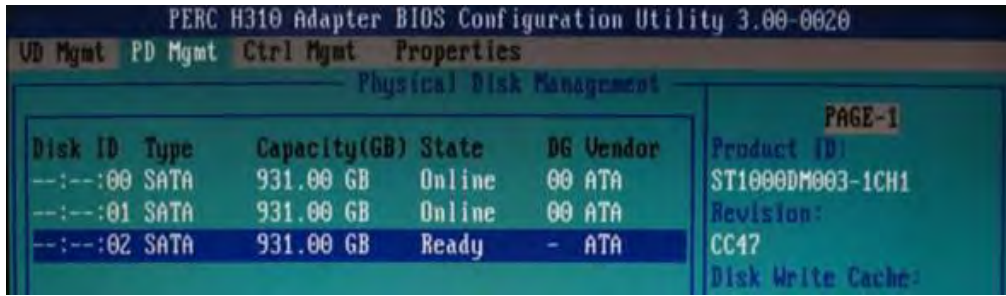


Figure 18 Dell Perc Hxx Adapter BIOS screen (1)

(5) Select “Make Global HS” on the replaced drive.

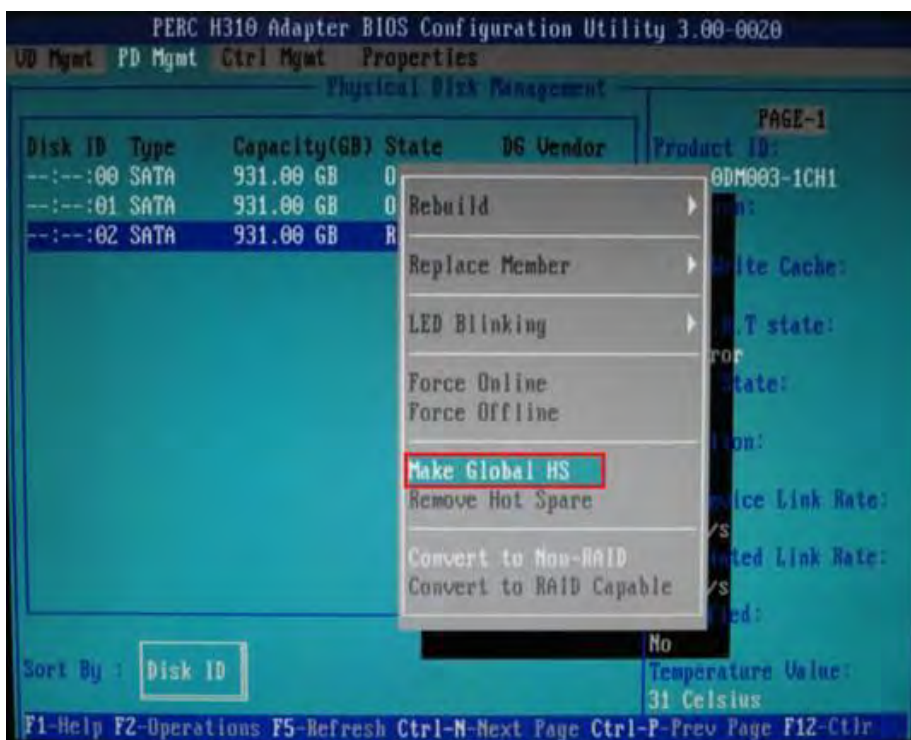


Figure 19 Dell Perc Hxx Adapter BIOS screen (2)

(6) Confirm Rebuild starts.



Figure 20 Dell Perc Hxx Adapter BIOS screen (3)

- (7) Exit the BIOS Configuration Utility and start server as usual.
- (8) Monitor the rebuild status using OPENMANAGE.

The rebuild will take few hours.

### 3.1.6 Checking UPS status

Use Web based UPS monitor. If any error occurs, it will be shown on the page.

<http://10.1.99.152:8080/index.html>

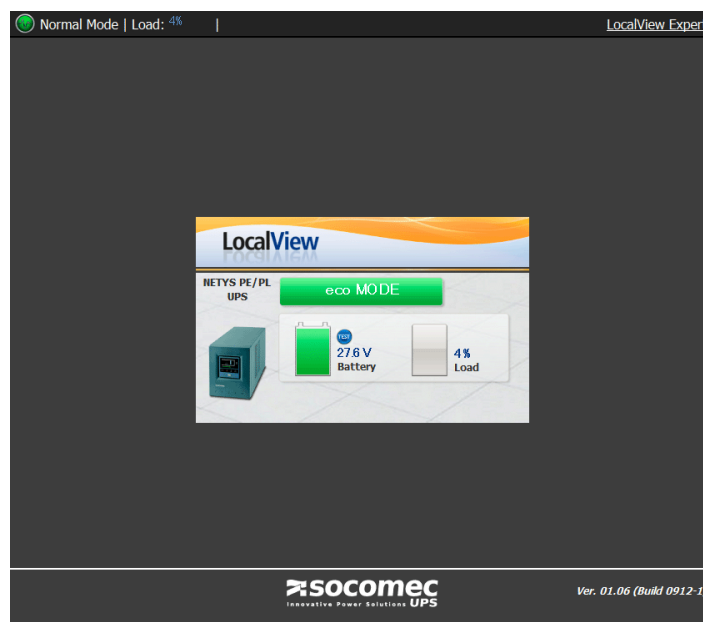


Figure 21 UPS Monitor

To see the measurement and event log, click [LocalView Expert] link in right upper corner.

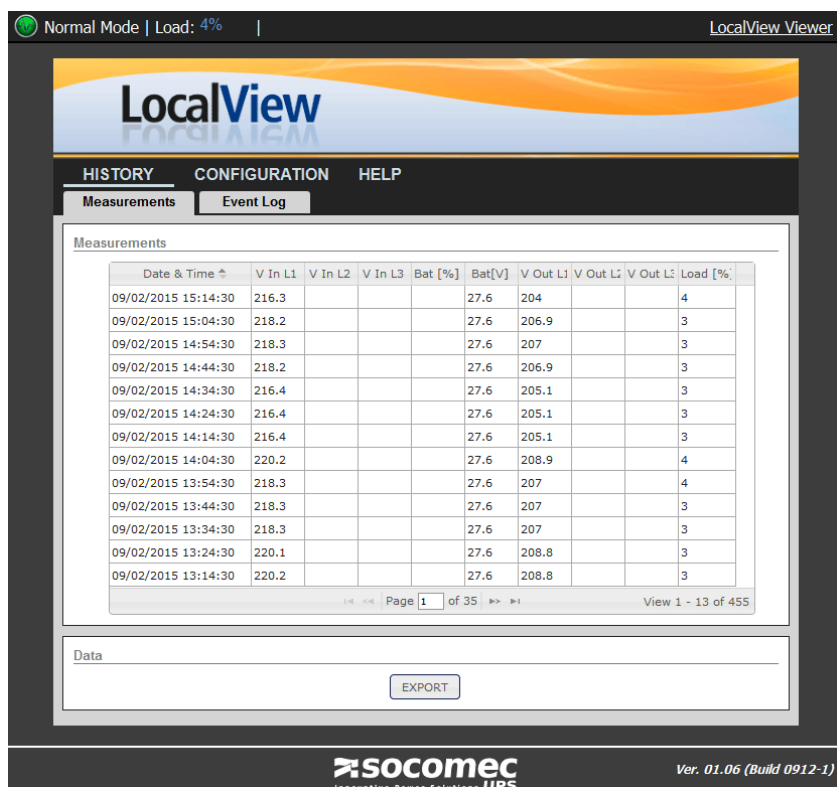


Figure 22 UPS Monitor (LocalView Expert)

## 3.2 Monitoring PSIP Production Server's health

The monitoring items of Physical Server's health are as below.

- Disk space usage
- Cron job's abnormality

### 3.2.1 Checking the disk space usage

- (1) Login as psip user to the PSIP Production Server (10.1.99.153) and switch to root user.

```
[psip@psip33 ~]$ su -
Password:
Last login: Sun Aug 27 12:50:54 SAST 2017 on pts/1
Last failed login: Sun Aug 27 19:07:15 SAST 2017 from 116.31.116.28 on ssh:notty
There were 1078 failed login attempts since the last successful login.
[root@psip33 ~]#
```

Note that above highlighted part reports there are 1078 times failed login attempts to this server as root user. Because this server's ssh port (22) is exposed to Internet, attackers are trying the brute force attacking but it is safe because the ssh configuration of this server disables the direct login of root user. If the other users such as psip become the target of brute force, we can say it is not safe anymore. But what we can do against such attacks is to set the strong password for these users. You can observe the more detail situation by checking a log

file /var/log/secure.

## (2) Check the disk space usage with df command

```
[root@psip33 ~]# df
Filesystem                1K-blocks    Used Available Use% Mounted on
/dev/mapper/centos-root  52403200  8094892  44308308  16% /
devtmpfs                  1531300      0   1531300   0% /dev
tmpfs                     1540624      0   1540624   0% /dev/shm
tmpfs                     1540624  155996   1384628  11% /run
tmpfs                     1540624      0   1540624   0% /sys/fs/cgroup
/dev/loop0                4209322  4209322      0 100% /mnt/centos-iso
/dev/mapper/centos-home 153484060  3646952 149837108   3% /home
/dev/vdb1                  206291944 11701920 184087932   6% /var/samba
/dev/vda1                   508588   129252   379336   26% /boot

[root@psip33 ~]#
```

The important lines are highlighted. The 1<sup>st</sup> line is the main disk space of OS and the 2<sup>nd</sup> line is for /home which is the space for PSIP Database application and the 3<sup>rd</sup> line is the disk space for Windows shared folder. All of these must be managed below 80% and sudden increase such as 10% increase may have special reason therefore it must be investigated.

### 3.2.2 Check the cron job's abnormality

```
[root@psip33 ~]# egrep -i 'error|fail' /var/log/cron
[root@psip33 ~]#
```

If one or more lines are displayed, you have to investigate the cause and fix it. In normal case, no line is displayed.

## 3.3 Monitoring PSIP Test Server's health

The monitoring items of Physical Server's health are as below.

- Disk space usage

### 3.3.1 Checking the disk space usage

#### (1) Login as root user to the PSIP Test Server (10.1.99.153) and switch to root user.

```
[psip@psip34 ~]$ su -
Password:
Last failed login: Sun Aug 27 20:52:33 SAST 2017 from 116.31.116.28 on ssh:notty
There were 16930 failed login attempts since the last successful login.
Last login: Fri Aug 25 10:34:45 2017
[root@psip34 ~]#
```

Note that above highlighted part reports there are 16930 times failed login attempts to this server as root user. Because this server's ssh port (22) is exposed to Internet, attackers are

trying the brute force attacking but it is safe because the ssh configuration of this server disables the direct login of root user. If the other users such as psip become the target of brute force, we can say it is not safe anymore. But what we can do against such attacks is to set the strong password for these users. You can observe the more detail situation by checking a log file /var/log/secure.

(2) Check the disk space usage with df command

```
[root@psip34 ~]# df
Filesystem          1K-blocks    Used Available Use% Mounted on
/dev/mapper/centos-root 52403200 7284020 45119180 14% /
devtmpfs            1015204      0 1015204  0% /dev
tmpfs               1024528      0 1024528  0% /dev/shm
tmpfs               1024528  98176  926352 10% /run
tmpfs               1024528      0 1024528  0% /sys/fs/cgroup
/dev/loop0          4209322 4209322      0 100% /mnt/centos-iso
/dev/vda1           508588 129252  379336 26% /boot
/dev/mapper/centos-home 153484060 2239344 151244716 2% /home
[root@psip34 ~]#
```

The important lines are highlighted. The 1<sup>st</sup> line is the main disk space of OS and the 2<sup>nd</sup> line is for /home which is the space for PSIP Database Both must be managed below 80% and sudden increase such as 10% increase may have special reason therefore it must be investigated.

## 4 Backup and recovery

There are several levels of backup schemes implemented in the server. The entire backup schemes are integrated in the physical server (psip30). This chapter describes types and features of each backup scheme and its implementation details.

Below is the content of main backup script which is executed once a day.

### tools/psip30/daily\_backup.sh

```
#!/bin/sh
# backup sybose data files
# 2016-11-21
# Author: Y.Ishikawa
# HISTORY:
# 2016-11-21 Initial version
# 2017-05-02 VM image backup is added
# 2017-08-11 Add echos for VM image backup. Add samba backup for psip33
# 2017-08-17 Change the frequency of Samba backup from daily to weekly
#
DATE=`date +%Y%m%d`
# WDAY is day of week number. 0=Sun, 1=Mon ... 6=Sat
WDAY=`date +%w`
# DDAY is day number
DDAY=`date +%d`
MOUNTPOINT=/mnt/ext-hdd
DESTBASE=$MOUNTPOINT/daily_backup
DBBACKUP=$MOUNTPOINT/db_backup
LOGBACKUP=$MOUNTPOINT/log_backup
VMBACKUP=$MOUNTPOINT/vm_backup
KEEPDAYS=30           ← Number of days to keep the backup files
PSIP2ID=psip         ← Database user
PSIP2PW=Kanrisya     ← Database password
#SSH_OPT=-t
SSH_OPT=""

#=====
# 0 means Sunday, For once a week backup
SAMBA_BACKUP_DAY=0   ← Day of week to take samba backup (0=Sunday, 1=Monday ...)
#=====
# For VM image backup
VM_NAMES="psip33 psip34" ← VM image files names (without extension)
# Once a month on this day
VM_BACKUP_DAY=10     ← Day of month to take VM backup
VM_BACKUP_CMD="/home/psip/tools/psip30/vm_backup.sh" ← VM backup command
#=====

echo -n "backup started at "
```

```

date "+%Y/%m/%d %H:%M:%S"

#Check if the drive is already mounted
df | grep -iq "$MOUNTPOINT"
if [ $? != 0 ]; then
    #If not mounted, mount it
    mount /mnt/ext-hdd
    RETVAL=$?

    if [ $RETVAL != 0 ]; then
        echo "error: $0: External HDD mount failure ($RETVAL)."

```



```

ssh ${SSH_OPT} root@${HOSTNAME} "(cd /; tar cf - ${DIR} | gzip)" >
$DESTBASE/"${HOSTNAME}_${DATE}_${DIR}".tgz
DIR=etc
ssh ${SSH_OPT} root@${HOSTNAME} "(cd /; tar cf - ${DIR} | gzip)" >
$DESTBASE/"${HOSTNAME}_${DATE}_${DIR}".tgz
# Added 2015-02-12 Ishikawa
DIR=mysql
ssh ${SSH_OPT} root@${HOSTNAME} "(cd /var/lib; tar cf - ${DIR} --exclude mysql.sock | gzip)" >
$DESTBASE/"${HOSTNAME}_${DATE}_${DIR}".tgz
# Save httpd log, No purge (2016-08-04 Ishikawa)
DIR=httpd
#ssh root@${HOSTNAME} "(cd /var/log; tar cf - ${DIR} | gzip)" >
$LOGBACKUP/"${HOSTNAME}_${DATE}_${DIR}".log.tgz
ssh ${SSH_OPT} root@${HOSTNAME} "(cd /var/log; tar cf - ${DIR} | gzip)" | (cd $LOGBACKUP; tar
xzf -)
# Save psip2 database dump, No purge (2016-11-08 Ishikawa)
ssh ${SSH_OPT} root@${HOSTNAME} "mysqldump -u ${PSIP2ID} -p${PSIP2PW} psip2 | gzip" >
$DBBACKUP/"${HOSTNAME}_${DATE}"-psip2.sql.gz
# Add samba backup for psip33 by Ishikawa 2017-08-11
# Once a week on spified day (Sunday)
if [ $WDAY = "$SAMBA_BACKUP_DAY" ]; then
    DIR=samba
    ssh ${SSH_OPT} root@${HOSTNAME} "(cd /var; tar cf - ${DIR} | gzip)" >
$DESTBASE/"${HOSTNAME}_${DATE}_${DIR}".tgz
fi
#=====
HOSTNAME="psip34"
#=====
DIR=home
ssh ${SSH_OPT} root@${HOSTNAME} "(cd /; tar cf - ${DIR} | gzip)" >
$DESTBASE/"${HOSTNAME}_${DATE}_${DIR}".tgz
DIR=etc
ssh ${SSH_OPT} root@${HOSTNAME} "(cd /; tar cf - ${DIR} | gzip)" >
$DESTBASE/"${HOSTNAME}_${DATE}_${DIR}".tgz
# Added 2015-02-12 Ishikawa
DIR=mysql
ssh ${SSH_OPT} root@${HOSTNAME} "(cd /var/lib; tar cf - ${DIR} --exclude mysql.sock | gzip)" >
$DESTBASE/"${HOSTNAME}_${DATE}_${DIR}".tgz

sync;sync;sync

#=====
# VM image backup. Once a month on the day specified by VM_BACKUP_DAY
#=====
VM_KEEPPDAYS=60
if [ $DDAY = "$VM_BACKUP_DAY" ]; then
    #Cleanup old vm image
    find "${VMBACKUP}" -type d -mtime "+${VM_KEEPPDAYS}" -exec rm -rf {} \;
    if ! [ -d "${VMBACKUP}/${DATE}" ]; then

```

```

    echo "making directory ${VMBACKUP}/${DATE}"
    mkdir "${VMBACKUP}/${DATE}"
fi
for vm_name in $VM_NAMES; do
    # This may take an hour or more
    echo "take backup for vm image for $vm_name"
    $VM_BACKUP_CMD -z "$vm_name" "${VMBACKUP}/${DATE}"
done
fi
sync;sync;sync
#=====

cd /
umount $MOUNTPOINT

echo -n "backup completed at "
date "+%Y/%m/%d %H:%M:%S"
exit 0

```

Below is the content of VM (Virtual Machine image) backup script which is executed once a month.

#### **tools/psip30/vm\_backup.sh**

```

#!/bin/sh
# vm_backup.sh
# Take backup for KVM virtual machine. If the VM is running, once shutdown it and
# take backup, then start the VM again.
# Author: Y. Ishikawa
# HISTORY:
# 2017-08-11 Modify to take backup for additional disk images of each vm
# 2017-05-01 Initial version
#
#
#=====
# exit_with_usage ()
# print usage and exit this shell
#=====
exit_with_usage () {
cat <<EOF
Usage
./vm_backup.sh [-z] <vm name> <destination path>
    <vm name> Virtual machine name
    <destination path> Path for saving the backup file
    -z          Compress the image file (gzip)
EOF
exit 0
}

#=====

```

```

# get_vm_status()
# $1=vm name
# return the specified vm's status to the stdout
#=====
get_vm_status() {
    echo `virsh list --all | grep "$1" | sed 's/^ *//' | sed 's/ \+/\t/g' | cut -f 3`
}
#
#*****
# Main part
#*****
#
# Process options
opt_compress=0
while getopts z OPT; do
    case $OPT in
        "z" ) opt_compress=1 ;;
        * ) exit_with_usage ;;
    esac
done
num_opts=`expr $OPTIND - 1`
num_params=`expr $# - $num_opts`
# Process other parameters
shift $num_opts
if [ $num_params -ne 2 ]; then
    exit_with_usage
fi
# Set required values from paramters
vm_name="$1"
dest_path="$2"
#
if [ ! -d "$dest_path" ]; then
    echo "Error: $dest_path: Directory not exists."
    exit 1
fi
#
# wait for 60 sec for shutdown
max_wait_count=60
#*** Examine vm status and shutdown if it's running
vm_status=`get_vm_status "$vm_name"`
if [ "$vm_status" = "" ]; then
    echo "Error: $vm_name: VM not exists."
    exit 1
fi
#
count=0
#
if [ $vm_status = 'running' ]; then
    # shutdown

```

```

virsh shutdown "$vm_name" >/dev/null 2>&1
sleep 1
while [ $count -le $max_wait_count ]; do
    if [ `get_vm_status "$vm_name"` = 'shut' ]; then
        break
    else
        sleep 1
        count=$((count + 1))
    fi
done
fi
**** If unable to shutdown try destroy
vm_status_next=`get_vm_status "$vm_name"`
#
if [ $count -gt $max_wait_count -a $vm_status_next = 'running' ]; then
    echo "Warning: $vm_name shutdown failure: Use 'destory' insted."
    count=0
    # destroy
    virsh destroy "$vm_name" >/dev/null 2>&1
    sleep 1
    while [ $count -le $max_wait_count ]; do
        if [ `get_vm_status "$vm_name"` = 'shut' ]; then
            break
        else
            sleep 1
            count=$((count + 1))
        fi
    done
fi
**** Take backup
image_path=/var/lib/libvirt/images
#Step1: XML file
virsh dumpxml "$vm_name" > "$dest_path/${vm_name}.xml"
#Step2: Take image backup for possible extentions
for ext in img qcow2; do
    for vm_file in `find $image_path -name ${vm_name}*.${ext}`; do
        vm_base_name=`basename "$vm_file"`
        echo -n " VM image backup for $vm_base_name start at "
        date "+%Y/%m/%d %H:%M:%S"
        if [ $opt_compress -eq 1 ]; then
            # Compress
            gzip -c "$vm_file" > "$dest_path/$vm_base_name.gz"
        else
            # No compress
            cp -p "$image_path/$vm_file" "$dest_path"
        fi
        echo -n " done at "
        date "+%Y/%m/%d %H:%M:%S"
    done
done

```

```
done
**** Start the vm if originally it was running
if [ "$vm_status" = "running" ]; then
  virsh start "$vm_name" >/dev/null 2>&1
fi
exit 0

**** End of script
```

## 4.1 Backup type and strategy

Next table summarizes the backup target, purpose, frequency & retain days and applicable servers.

**Table 8 Summary of backups**

Target	Purpose (backup directory)	Frequency (Retain days)	Physical Server (psip30)	Production Server (psip33)	Test Server (psip34)
/etc	Backup OS configuration files (daily_backup)	Daily (30 days)	Yes	Yes	Yes
/home	Backup application files and user files (daily_backup)	Daily (30 days)	Yes	Yes	Yes
/var/samba	Backup shared folders (daily_backup)	Weekly (30 days)		Yes	
/var/lib/mysql	Backup MySQL data files (daily_backup)	Daily (30 days)		Yes	Yes
psip2 database dump	Backup psip2 database content (db_backup)	Daily (Infinite)		Yes	
/var/log/httpd	Backup httpd log files (log_backup)	Daily (Infinite)		Yes	
/var/lib/libvirt/images	Backup VM image files and configuration XML files (vm_backup)	Monthly (60 days)	Yes		

### 4.1.1 File backups in daily\_backup directory

The backups of /etc, /home, /var/samba and /var/lib/mysql are taken and saved into daily\_backup directory of external USB HDD. The contents are as below.

```
[root@psip30 ~]# mount /mnt/ext-hdd
[root@psip30 ~]# cd /mnt/ext-hdd
[root@psip30 ext-hdd]# ls -lrt daily_backup/
total 595038856
-rwxrwxrwx 1 root root 1914239274 Jul 27 01:07 psip30_20170727_home.tgz
```

```
-rwxrwxrwx 1 root root 9337975 Jul 27 01:07 psip30_20170727_etc.tgz
-rwxrwxrwx 1 root root 544499629 Jul 27 01:08 psip30_20170727_samba.tgz
-rwxrwxrwx 1 root root 8568290514 Jul 27 01:21 psip33_20170727_home.tgz
-rwxrwxrwx 1 root root 7268520 Jul 27 01:21 psip33_20170727_etc.tgz
-rwxrwxrwx 1 root root 40136361 Jul 27 01:22 psip33_20170727_mysql.tgz
-rwxrwxrwx 1 root root 6979911585 Jul 27 01:33 psip34_20170727_home.tgz
-rwxrwxrwx 1 root root 7178910 Jul 27 01:33 psip34_20170727_etc.tgz
-rwxrwxrwx 1 root root 46368865 Jul 27 01:33 psip34_20170727_mysql.tgz
:
-rwxrwxrwx 1 root root 7265602 Aug 27 01:10 psip33_20170827_etc.tgz
-rwxrwxrwx 1 root root 47878679 Aug 27 01:10 psip33_20170827_mysql.tgz
-rwxrwxrwx 1 root root 9970589565 Aug 27 01:28 psip33_20170827_samba.tgz
-rwxrwxrwx 1 root root 1500569984 Aug 27 01:31 psip34_20170827_home.tgz
-rwxrwxrwx 1 root root 7172400 Aug 27 01:31 psip34_20170827_etc.tgz
-rwxrwxrwx 1 root root 47218471 Aug 27 01:31 psip34_20170827_mysql.tgz
[root@psip30 ext-hdd]#
```

The file name of the backup files is as below.

```
<host name>_<date>_<target>.tgz
```

To see the contents of a backup file, use tar command with tvzf option as below.

```
[root@psip30 ext-hdd]# tar tvzf daily_backup/psip34_20170827_mysql.tgz
drwxr-xr-x mysql/mysql 0 2017-08-15 17:05 mysql/
drwx----- mysql/mysql 0 2015-07-23 16:47 mysql/mysql/
-rw-rw---- mysql/mysql 9582 2015-07-23 16:47 mysql/mysql/db.frm
-rw-rw---- mysql/mysql 5120 2015-11-18 14:58 mysql/mysql/db.MYI
-rw-rw---- mysql/mysql 3080 2015-11-18 14:58 mysql/mysql/db.MYD
-rw-rw---- mysql/mysql 10684 2015-07-23 16:47 mysql/mysql/user.frm
:
```

To retrieve the contents of a backup file, also use tar command with xvzf option. Note that the extracted files are save into current location unless otherwise specified.

#### 4.1.2 psip2 database dumps in db\_backup directory

The dump of psip2 database are taken and saved into db\_backup directory of external USB HDD. The contents are as below.

```
[root@psip30 ext-hdd]# ls -lrt db_backup/
total 2222632
-rwxrwxrwx 1 root root 4656110 Nov 9 2016 psip33_20161109-psip2.sql.gz
-rwxrwxrwx 1 root root 4787624 Nov 10 2016 psip33_20161110-psip2.sql.gz
-rwxrwxrwx 1 root root 4824257 Nov 11 2016 psip33_20161111-psip2.sql.gz
-rwxrwxrwx 1 root root 4831194 Nov 12 2016 psip33_20161112-psip2.sql.gz
```

```

:
-rwxrwxrwx 1 root root 11122404 Aug 25 01:12 psip33_20170825-psip2.sql.gz
-rwxrwxrwx 1 root root 11366226 Aug 26 01:11 psip33_20170826-psip2.sql.gz
-rwxrwxrwx 1 root root 11366318 Aug 27 01:11 psip33_20170827-psip2.sql.gz
[root@psip30 ext-hdd]#

```

To retrieve the contents of a backup file, use `zcat` command with specifying the extracted file name. Below is the example.

```
zcat /mnt/ext-hdd/db_backup/psip33_20170827-psip2.sql.gz > /tmp/psip2.sql
```

This is to retrieve the SQL dump file into `/tmp` directory with the filename “psip2.sql”.

Because the contents of `db_backup` are never purged, IT staff has to manually purge the contents. To do it, use `find` command with specifying the number of days to be purged. Next example is to purge files older than 180 days.

```

[root@psip30 ~]# mount /mnt/ext-hdd
[root@psip30 ~]# cd /mnt/ext-hdd/db_backup
[root@psip30 db_backup]# find . -mtime +360 -exec rm -f {} \;

```

#### 4.1.3 Httpd log file backups in log\_backup directory

The httpd log file backups are taken for monitoring the access rate. The directory `/var/log/httpd` is just copied into `log_backup` directory of external USB HDD. The contents of `/var/log/httpd` are purged by log rotate utility but all files are copied into `log_backup` directory before purging. The contents of `log_backup` is as below. The log files exist under `httpd` directory.

```

[root@psip30 ext-hdd]# ls -lrt log_backup/httpd/
total 770520
-rwxrwxrwx 1 root root 4143080 Feb 28 2016 error_log-20160228
-rwxrwxrwx 1 root root 843604 Feb 28 2016 access_log-20160228
-rwxrwxrwx 1 root root 3319905 Mar 7 2016 error_log-20160307
-rwxrwxrwx 1 root root 333053 Mar 7 2016 access_log-20160307
-rwxrwxrwx 1 root root 32527457 Mar 13 2016 error_log-20160313
-rwxrwxrwx 1 root root 781203 Mar 13 2016 access_log-20160313
:
-rwxrwxrwx 1 root root 16557577 Aug 27 00:15 error_log
-rwxrwxrwx 1 root root 2270212 Aug 27 00:15 access_log
-rwxrwxrwx 1 root root 14387814 Aug 27 01:04 ssl_access_log
[root@psip30 ext-hdd]#

```

#### 4.1.4 VM image file backups in vm\_backup directory

The VM image backups are saved under vm\_backup directory and date sub directory.

```
[root@psip30 ext-hdd]# ls vm_backup
20170710 20170813
[root@psip30 ext-hdd]# ls -l vm_backup/20170813
total 68071292
-rwxrwxrwx 1 root root 14406119295 Aug 13 04:10 psip33-1.img.gz ← psip33 samba disk image
-rwxrwxrwx 1 root root 34509608951 Aug 13 03:21 psip33.img.gz ← psip33 VM image
-rwxrwxrwx 1 root root 2769 Aug 13 02:00 psip33.xml ← psip33 VM configuration
-rwxrwxrwx 1 root root 20789264355 Aug 13 05:10 psip34.img.gz ← psip34 VM image
-rwxrwxrwx 1 root root 2487 Aug 13 04:11 psip34.xml ← psip34 VM configuration
[root@psip30 ext-hdd]#
```

## 4.2 Restoring from backups

### 4.2.1 Restore /etc directory from the backup

Following example extracts /etc backup and retrieves /etc/httpd content and replace with current one.

```
[root@psip30 ~]# mount /mnt/ext-hdd
[root@psip30 ~]# ls -l /mnt/ext-hdd/daily_backup | less
<Identify the backup file to use and determine to use psip30_20170727_etc.tgz>
<The file contents are extracted to current working directory>
[root@psip30 ~]# tar xvfz /mnt/ext-hdd/daily_backup/psip30_20170727_etc.tgz
drwxr-xr-x root/root 0 2017-07-27 01:05 etc/
-rw-r--r-- root/root 28 2012-05-10 10:17 etc/ethers
drwxr-xr-x root/root 0 2014-10-22 16:19 etc/event.d/
-rw-r--r-- root/root 141 2010-11-11 00:09 etc/event.d/ck-log-system-start
-rw-r--r-- root/root 137 2010-11-11 00:09 etc/event.d/ck-log-system-stop
-rw-r--r-- root/root 146 2010-11-11 00:09 etc/event.d/ck-log-system-restart
drwxr-xr-x root/root 0 2013-11-22 17:15 etc/rsyslog.d/
:
drwxr-xr-x root/root 0 2014-10-22 16:17 etc/default/
-rw----- root/root 119 2009-11-20 15:16 etc/default/useradd
-rw-r--r-- root/root 1756 2013-11-21 23:15 etc/default/nss
[root@psip30 ~]# mv /etc/httpd /etc/httpd_old ← Take backup of previous one
[root@psip30 ~]# cp -pr ./etc/httpd /etc ← Copy extracted contents
[root@psip30 /]# umount /mnt/ext-hdd
```

### 4.2.2 Restore /home directory from the backup

Following example extracts /home backup and replace with current one.

```
[root@psip30 ~]# mount /mnt/ext-hdd
[root@psip30 ~]# ls -l /mnt/ext-hdd/daily_backup | less
```



```

<Identify the backup file to use and determine to use psip30_20170730_home.tgz>
[root@psip30 ~]# cd /
[root@psip30 /]# mv home home_old      ← Remain present one as home_old
[root@psip30 /]# tar xvzf /mnt/ext-hdd/daily_backup/psip30_20170730_home.tgz
:
[root@psip30 /]# umount /mnt/ext-hdd

```

### 4.2.3 Restore /var/lib/mysql directory from the backup (psip33)

Following example extracts /var/lib/mysql backup and replace with current one in psip33.

```

[root@psip30 ~]# mount /mnt/ext-hdd
[root@psip30 ~]# ls -l /mnt/ext-hdd/daily_backup | less
<Identify the backup file to use and determine to use psip33_20170727_mysql.tgz>
[root@psip30 ~]# scp /mnt/ext-hdd/daily_backup/psip33_20170727_mysql.tgz
root@192.168.1.31:/tmp/      ← Remote copy the backup file
[root@psip30 ~]# ssh 192.168.1.31      ← Remote login to psip33
[root@psip33 ~]# cd /var/lib
[root@psip33 lib]# cd /var/lib
[root@psip33 lib]# systemctl stop mysqld      ← Stop mysqld service
[root@psip33 lib]# mv mysql mysql_old      ← Remain present one as mysql_old
[root@psip33 lib]# tar xvzf /tmp/psip33_20170727_mysql.tgz      ← Extract the backup file
:
[root@psip33 lib]# systemctl start mysqld      ← Start mysqld service
[root@psip33 lib]# exit      ← Logout from psip33
[root@psip30 ~]# umount /mnt/ext-hdd

```

### 4.2.4 Restore psip2 dump into mysql database (psip33)

Following example extracts psip2 dump backup and restore it into psip2 database in psip33.

```

[root@psip30 ~]# mount /mnt/ext-hdd
[root@psip30 ~]# ls -l /mnt/ext-hdd/db_backup | less
<Identify the backup file to use and determine to use psip33_20170826-psip2.sql.gz>
[root@psip30 ~]# scp /mnt/ext-hdd/daily_backup/psip33_20170826-psip2.sql.gz
root@192.168.1.31:/tmp/      ← Remote copy the backup file
[root@psip30 ~]# ssh 192.168.1.31      ← Remote login to psip33
[root@psip33 ~]# zcat /tmp/psip33_20170826-psip2.sql.gz | mysql -u psip -p psip2
Password:      ← Enter psip user's password of mysql
[root@psip33 ~]# exit      ← Logout from psip33
[root@psip30 ~]# umount /mnt/ext-hdd

```

Note that if you want to load the dump into different database name such as “psip2\_ref”, the database has to be created so that the dump can be loaded.

### 4.2.5 Restore VM image and restore

Following example retrieves VM image of psip33 and restore.

```

[root@psip30 ~]# mount /mnt/ext-hdd

```

```

[root@psip30 ~]# ls -l /mnt/ext-hdd/vm_backup
20170710 20170813
[root@psip30 ~]# ls -l /mnt/ext-hdd/vm_backup/20170813
-rwxrwxrwx 1 root root 14406119295 Aug 13 04:10 psip33-1.img.gz
-rwxrwxrwx 1 root root 34509608951 Aug 13 03:21 psip33.img.gz
-rwxrwxrwx 1 root root      2769 Aug 13 02:00 psip33.xml
-rwxrwxrwx 1 root root 20789264355 Aug 13 05:10 psip34.img.gz
-rwxrwxrwx 1 root root      2487 Aug 13 04:11 psip34.xml
<Identify the backup files to use and determine to use the contents in 20170813 sub directory>
[root@psip30 ~]# cd /var/lib/libvirt/images/
[root@psip30 images]# ls -l
-rw----- 1 qemu qemu 214748364800 Aug 27 15:27 psip33-1.img
-rw----- 1 qemu qemu 214748364800 Aug 27 23:25 psip33.img
-rw----- 1 root root  8589934592 Aug 15 16:48 psip34-1.img
-rw----- 1 qemu qemu 214748364800 Aug 27 23:25 psip34.img
[root@psip30 images]# virsh stop psip33      ← Stop psip33
[root@psip30 images]# mv psip33.img psip33.img-backup ← Remain present image file
[root@psip30 images]# zcat /mnt/ext-hdd/vm_backup/20170810/psip33.img.gz > psip33.img ←
Extract image
[root@psip30 images]# virsh define /mnt/ext-hdd/vm_backup/20170810/psip33.xml ← Configure
VM
[root@psip30 images]# virsh start psip33    ← Start psip33
[root@psip30 images]# umount /mnt/ext-hdd

```

## 5 Development environment

This chapter describes how to setup and use the development environment in your PC.

### 5.1 Setup development environment into a PC

Following steps is removing current psip user and create it again as git managed development environment.

<Login as root>

**Note:** This operation contains the removal of psip user. You should take the backups before proceeding if there are important files.

```
[root@psip104 ~]# userdel -r psip      ← Remove existing psip user
[root@psip104 ~]# useradd -m psip     ← Create psip user again
[root@psip104 ~]# passwd psip        ← Set password
Changing password for user psip.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[root@psip104 ~]#
```

<Switch user to psip>

<The PC is supposed to be connected to GWAN>

```
[root@psip104 ~]# su - psip
[psip@psip104 ~]$ cd ..
[psip@psip104 home]$ chmod 755 psip
[psip@psip104 home]$ cd
[psip@psip104 ~]$ scp -r psip@10.1.99.153:install . ← Copy install directory from PSIP Test Server
psip@10.1.99.153's password:
install_base_templates2.tgz  100% 2137KB  2.1MB/s  00:01
:

[psip@psip104 ~]$
[psip@psip104 ~]$ cp install/dot_gitconfig .gitconfig
[psip@psip104 ~]$ vi .gitconfig
```

<Change highlighted part accordingly>

```
[user]
name = Yasumitsu Ishikawa
```

```
email = ishikawa@jds21.com
[core]
  editor = emacs
[color]
  diff = auto
  status = auto
  branch = auto
[push]
  default = simple
```

### <Clone public\_html>

```
[psip@psip104 ~]$ git clone -b develop psip@10.1.99.153:public_html.git ← GWAN path
Cloning into 'public_html'...
psip@10.1.99.153's password:
remote: Counting objects: 11732, done.
```

:

```
[psip@psip104 ~]$ cd public_html
```

```
[psip@psip104 public_html]$ git remote add inet psip@196.11.82.27 ← Add internet path
```

### <Clone tools>

```
[psip@psip104 public_html]$ cd
```

```
[psip@psip104 ~]$ git clone -b develop psip@10.1.99.153:tools.git ← GWAN path
```

```
Cloning into 'tools'...
psip@10.1.99.153's password:
remote: Counting objects: 128, done.
remote: Compressing objects: 100% (125/125), done.
```

:

```
[psip@psip104 ~]$ cd tools
```

```
[psip@psip104 tools]$ git remote add inet psip@196.11.82.27 ← Add internet path
```

### <Clone smarty>

```
[psip@psip104 tools]$ cd
```

```
[psip@psip104 ~]$ git clone -b develop psip@10.1.99.153:smarty.git ← GWAN path
```

```
Cloning into 'smarty'...
psip@10.1.99.153's password:
remote: Counting objects: 36, done.
remote: Compressing objects: 100% (34/34), done.
```

:

```
[psip@psip104 ~]$ cd smarty
```

```
[psip@psip104 smarty]$ git remote add inet psip@196.11.82.27 ← Add internet path
```

<Extract Smarty library>

```
[psip@psip104 smarty]$ cd
[psip@psip104 ~]$ tar xvzf install/install_smarty.tgz
Smarty
smarty-3.1.27/
smarty-3.1.27/.gitattributes
:
```

<Extract base\_templates2>

```
[psip@psip104 ~]$ tar xvzf install/install_base_templates2.tgz
base_templates2/
base_templates2/20161216_1718_ONGOING_V41_BLANK.xlsm
base_templates2/20161216_1718_NEW_V41_BLANK.xlsm
:
```

<Initialize symfony and smarty environment>

```
[psip@psip104 ~]$ cd public_html/
[psip@psip104 public_html]$ ./init_env_smarty.sh
[psip@psip104 public_html]$ ./init_env_symfony.sh
[psip@psip104 public_html]$ cd
[psip@psip104 ~]$ cp install/dot_emacs .emacs
```

## 5.2 Usage of git based development environment

### 5.2.1 Basic usage

```
[psip@psip104 ~]$ cd public_html
```

<1st Pull the latest contents>

```
[psip@psip104 public_html]$ git pull origin develop
[psip@psip104 public_html]$ cd tload2
[psip@psip104 tload2]$ emacs version.php
```

[← Editing for example](#)

<Edit the source code>

```
[psip@psip104 tload2]$ git add .
[psip@psip104 tload2]$ git commit -am "Edit version by Ishikawa"
[develop 3a9fc94] Edit version by Ishikawa
 2 files changed, 7 insertions(+), 7 deletions(-)
[psip@psip104 tload2]$ git push origin develop
psip@10.1.99.153's password:
```

[← Editing for example](#)

:

In case your PC is connected via Internet, pull and push command line should be like below.

```
[psip@psip104 public_html]$ git pull inet develop
```

```
[psip@psip104 public_html]$ git push inet develop
```

“origin” and “inet” indicates the remote path. “origin” is translated to the IP address 10.1.99.153 and “inet” is translated to the global IP address 196.11.82.27.

## 5.2.2 Advanced usage

### To retrieve change log

```
[psip@psip104 tload2]$ git log
commit 036d62bd741a4f523c7280d3ca9dc8f7408c0259
Author: Yasumitsu Ishikawa <ishikawa@jds21.com>
Date: Wed Apr 26 00:26:21 2017 +0200
```

Edit version by Ishikawa

```
commit 3a9fc943ab5c2f679d9083ff2dd8059f75178be3
Author: Yasumitsu Ishikawa <ishikawa@jds21.com>
Date: Wed Apr 26 00:23:01 2017 +0200
```

Edit version by Ishikawa

```
commit 9f6dbb3ce36fa9cfd960ee4021340667fef406d8
Author: PSIP Developer <psip@localhost>
Date: Tue Apr 25 23:43:39 2017 +0200
```

Initial commit by Ishikawa

### To retrieve differences

```
[psip@psip104 tload2]$ git log -p
commit 036d62bd741a4f523c7280d3ca9dc8f7408c0259
Author: Yasumitsu Ishikawa <ishikawa@jds21.com>
Date: Wed Apr 26 00:26:21 2017 +0200
```

:

### To retrieve differences for latest 2 updates

```
[psip@psip104 tload2]$ git log -p -2
commit 036d62bd741a4f523c7280d3ca9dc8f7408c0259
Author: Yasumitsu Ishikawa <ishikawa@jds21.com>
Date: Wed Apr 26 00:26:21 2017 +0200
```

### ***To cancel the change***

```
[psip@psip104 tload2]$ git log
Author: Yasumitsu Ishikawa <ishikawa@jds21.com>
Date: Tue May 2 16:29:00 2017 +0200
```

Test4 by Ishikawa

```
commit ed14418f72412c96dc83464de97641471fb942cd
```

```
[psip@psip104 tload2]$ git revert ed144
```

- In case you have pushed to the remote git already, you have to push again -

```
[psip@psip104 tload2]$ git push origin develop
```

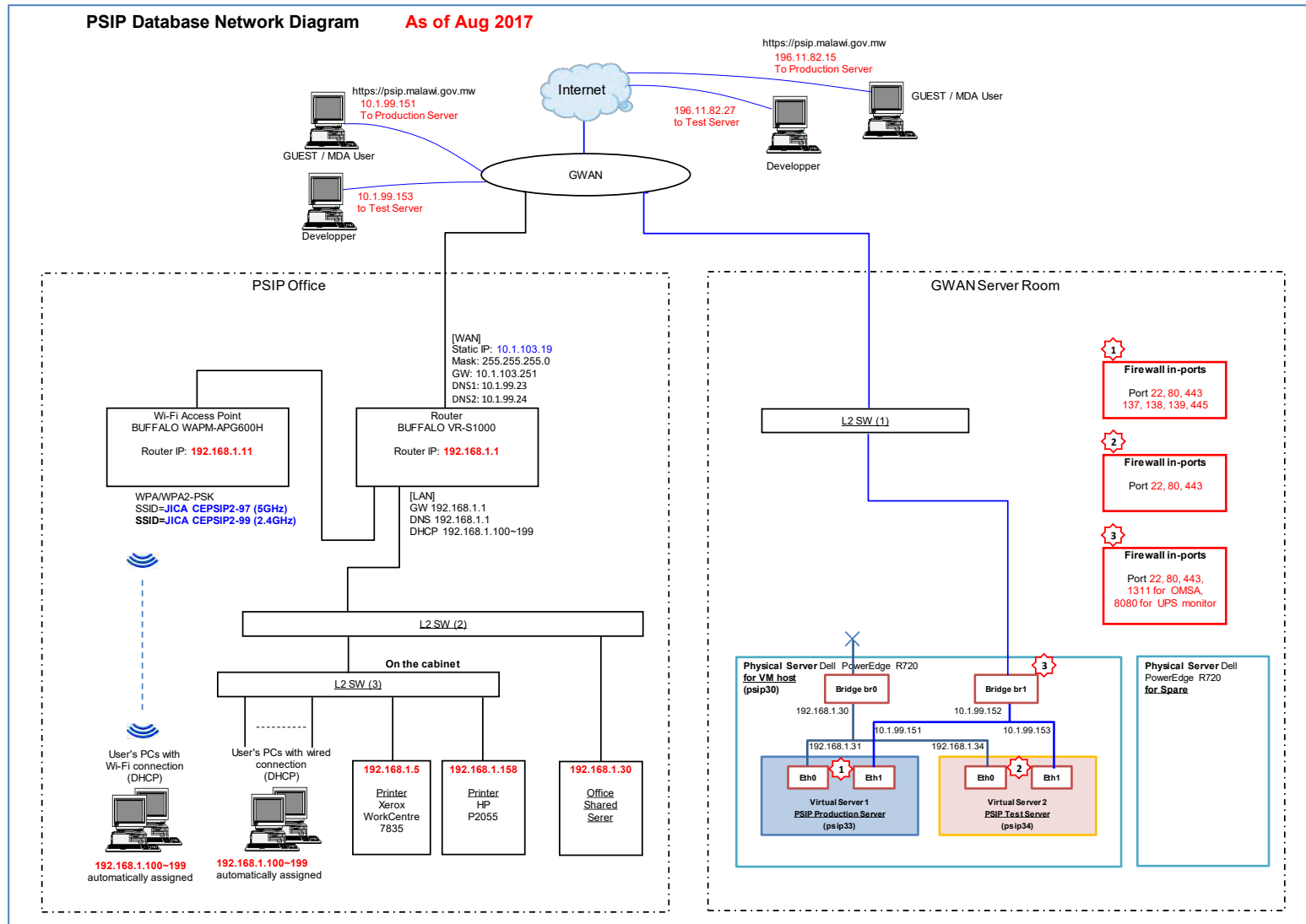
### **5.2.3 Reflect changes from Test Server to Production Server**

To reflect the changes from PSIP Test Server (git server) to PSIP Production Server, it has to be done on PSIP Test Server. Push contents of public\_html, tools and smarty one by one using a remote path name “rmtprod”.

<Login to Test Serer>

```
[psip@psip34 ~]$ cd public_html
[psip@psip34 public_html]$ git push rmtprod develop
[psip@psip34 public_html]$ cd ../tools
[psip@psip34 tools]$ git push rmtprod develop
[psip@psip34 tools]$ cd ../smarty
[psip@psip34 smarty]$ git push rmtprod develop
```

# Appendix A Network Diagram





## Appendix B PSIP IT Annual Schedule

### PSIP IT Annual Schedule

Ver.1.1

No.	Summary of Activity	March	April	May	June	July	August	September	October	November	December	January	February
1	Review PSIP formulation and gather/compile the requirements for Database improvement	Gather requirements for improvement ▲ PSIP Database review meeting (PSIP IT + Ecnomists)											
2	Prepare for Development	Make Change Request for Server Side Make Excel Template Modification Design											
3	Design		Make Detail Design ▲ Development meeting (PSIP IT + e-Government)										
4	Coding, Debugging and Testing	Excel Templates	Coding & Debugging Server Side	Coding, Debugging, Module Testing		Integrate Testing (Templates + Server)							
5	Preparatoin for Circular#1						Process Extension Request by Economist Collect latest Master Data info. by Economist Renew Template's Master Data Upload Template's Master Data to Database Compile Project's vote change info. by Economist Register Vote Rewrite Spec to Database Collect Approved Budget Info. by Economist Collect Donor funded Projects' Info. by Economist Revise Budget/Status data in Database ★ Switch Database's FY Generate Templates/Forms & Test Announce Circular#1 on Portal						
6	Activities after Circular#1						▲ Issue Circular#1 ▲ Seminar/Workshops	Load submitted Templates to Database	Support Economists on using Database functions (Initial/Final Appraisal, Site Validation Log, Ministerial Meeting Record, etc.)				Collect Mid-Year revised Budget Info. by Economist Revise Budget/Status
7	Quarterly Progress Report		Load submitted QT Report to Database (Q3)		Load submitted QT Report to Database (Q4)				Load submitted QT Report to Database (Q1)			Load submitted QT Report to Database (Q2)	

## Appendix C Change Request Form

Requestor:

Date of Request:

<p><b>Change Request Detail</b> - The Change Request form is the document of record for a change request. It provides the business reasons and justification for the change and assesses the risk and impact of the change.</p>	
<p><b>Type of Change</b></p> <p><input type="checkbox"/> Business Change or Need</p> <p><input type="checkbox"/> Enhancement</p> <p><input type="checkbox"/> Correction</p> <p><input type="checkbox"/> Other</p>	<p><b>Description of change</b></p>
<p><b>Priority</b></p>	<p><input type="checkbox"/> – <b>Critical:</b> “We can’t move forward until this change is resolved.”</p> <p><input type="checkbox"/> – <b>High:</b> “We are fine for right now, but unless this change is resolved by the due date, we won’t be able to move forward.”</p> <p><input type="checkbox"/> – <b>Normal:</b> “We are fine for the right now, but this may impact our ability to move forward in the near future.”</p> <p><input type="checkbox"/> – <b>Low:</b> “This change is not impacting our ability to move forward.”</p>
<p><b>The additional benefits the proposed change would have.</b></p>	

---

Signature of Requester

**Authorization**

<b>Decision</b>	<input type="checkbox"/> Approved	<input type="checkbox"/> Approved with conditions	<input type="checkbox"/> Rejected	<input type="checkbox"/> More Information
<b>Decision Date</b>				
<b>Decision Explanation</b>				
<b>Authorizing Officer</b>				

---

Signature of Authorizing Officer

**Project Manager**

Date Received:

Change Request #:

Time Required for Change(Days):

Estimated Cost:

Estimated Completion Date of Change:

---

Signature of Project Manager

## Appendix D PSIP Database and Excel tools Development Plan & Progress

**PSIP Database and Excel tools Development Plan & Progress**

As of 11/Aug/2017

No	Discussion Points (Issues)	Measures from IT side	ID	Has Detail Design?	What to be developed	Necessary Days for Development	Party in charge	Priority	Person in charge	PSIP in charge	Timing to be completed	Idea of implementation	Status as of 11/Aug/2017	Progress, Challenges, Recommendations as of 11/Aug/2017
5	summary of the progress need to be added on the template	Before the arear input button add Summary of the progress on template	5D	Yes	DB	1 week (or less than 1 week)	PSIP	High		Chimwemwe	Apr	New field --> progress_summary in finance_summary table FINANCE_SUMMARY table, add column PROGRESS_SUMMARY	Ongoing	Completed.
17	Need to add another status Not applicable as a PBB status	If that vote does not have PBB, the user should click Not Applicable. This applies only to subvented projects.	17D	Yes	DB	1 week (or less than 1 week)	PSIP	Normal		Chimwemwe	Apr	Add new code into tables; [mst_pbb_program]:vote_code:275, pbb_program_code:99, name:99 not applicable [mst_pbb_subprogram]:vote_code:275, pbb_program_code:99, name:99 not applicable This does not involve structure change of tables. The change in template will be reflected to the database when master data uploading.	Ongoing	Completed.
21	Need additional field for PSIP desk officers for project progress.	Add new fields for PSIP desk officers to update about progress of the project in process management unit.	21D	Yes	DB	1 week (or less than 1 week)	PSIP	Normal		Gift	Apr	No.5 is for MDA users to write the progress. This is for PSIP desk officer to write the progress. New field in Project Table --> Has been added (memo in project table) @ ver:3.01.06: The "progress" must be divided into "Progress", "Challenges" and (maybe) "Recommendations". Therefore, those corresponding columns have to be added into project table instead of "memo".	Ongoing	The specification is being deissued. The necessary columns of the report are: Vote, NEW/ONGOING (FY2016/17 Status), Project Title, Project Purpose, Physical Progress as at 30th March 2017, Challenges Faced --> New table "project_progress" is added by Ishikawa.
22	Need project status completed	To add new project status completed.	22D	Yes	DB	1 week (or less than 1 week)	PSIP	High		Gift	Apr	Add new code to table Const1 This does not involve structure change of tables	Ongoing	The addition of COMPLETED status is held because the effect of the addition has to be examined. --> COMPLETED status can be added only in development environment. It will be done anytime during development period on the development server.
23	Another sheet to quartely progress format	To add another sheet to quarterly progress format. To make MDAs users to write completion report.	23D	Yes	DB	1 week (or less than 1 week)	PSIP	Normal		Shalom	Apr	Start Date, End Date, Note for Completion Report, Person who write completion report Add new table COMPLETION_REPORT	Ongoing	Completed.
5	summary of the progress need to be added on the template	Before the arear input button add Summary of the progress on template	5WM	No	Web -Smarty	1 week (or less than 1 week)	PSIP	High		Shalom	Apr	Add a difinition into loadspec.php Modify model and view of project detail screen	Ongoing	The feature has been added into Ongoing proposal template and Quarterly Progress Report, and also loader/generator + Ongoing view and Quarterly report view are confirmed working well.
13	Updating old template to the database does not counted as errors and uploaded as the one for the wrong years	When uploading a template the usr should specify that templates are for which year on the web before uploading, and if the template with wrong fiscal year tries to be updated, that should be rejected	13WM	Yes	Web -Smarty	2 weeks (or less than 2 weeks)	PSIP	Critical	Ishikawa	Chimwemwe	May	After the discussion, below is the idea. Implement year restriction in automatic upload (Shared folder and web-based). But not in manual upload. Because old year's upload is still needed for maintenance purpose. --> Issue: How to know that the upload is rejected	Ongoing	Design is ongoing by Ishikawa. Supposed to be completed by the End of May. Done by Ishikawa as following the idea. The error can be confirmed with checking the submission table.
14	Need summary of ministerial minutes	System should be able to produce a summary of ministerial minutes	14WM	Yes	Web -Smarty	more than 2 weeks	e-government	High	Leviticus	Shalom	May	vote, vote code, overall comments, remarks Need new dsign screen with Excel output. --> How to reach this screen? --> Put a button "Ministerial Meeting Summary" on the top of PSIP Process Management screen	Ongoing	Completed.
15	Projects submitted need to be equal to automatically uploaded projects	Remove submitted project column	15WM	No	Web -Smarty	1 week (or less than 1 week)	PSIP	Normal	Ishikawa	Shalom	Apr	After the discussion, below is the conclusion. - Remove submission count - Remove Submission folder - Make vote folders in Auto@Success and Auto@Fail folders so that the templates are automatically stored into corresponding vote folders - All submitted templates are stored in Auto@Scuccess and Auto@Fail folders --> Ishikawa does	Ongoing	Design is ongoing by Ishikawa. Supposed to be completed by the End of May. --> Creation of vote folders remains but others have been done. Will be done by 14 Aug 2017 by Ishikawa.
17	Need to add another status Not applicable as a PBB status	If that vote does not have PBB, show "Not Applicable". This applies only to subvented projects.	17WM	No	Web -Smarty	1 week (or less than 1 week)	PSIP	Normal		Chimwemwe	Apr	Modification in general info. Maybe no modification required --> Yes it is	Ongoing	Completed.
21	Need additional field for PSIP desk officers for project progress.	Add new fields for PSIP desk officers to update about progress of the project in process management unit.	21WM	No	Web -Smarty	more than 2 weeks	e-government	Normal	Khumbo	Shalom	May	No.5 is for MDA users to write the progress. This is for PSIP desk officer to write the progress. Add new window launched from PSIP Process management screen	Ongoing	Progress=70% - Buttons on the process management screen completed. - Database modification completed. - Input window design and coding completed. - Doing debugging. --> Finalised by Ishikawa
22	Need project status completed	To add new project status completed.	22WM	No	Web -Smarty	1 week (or less than 1 week)	PSIP	High		Gift	Apr	Just for testing (need to check ISHIKAWA) --> I think addition of COMPLETE status (code='C') into CONST1 table is enough. No modification is needed in program. By Ishikawa Appraisal Summary --> Statistics and Generator (status selection) have to be modified	Ongoing	Completed.
23	Another sheet to quartely progress format	To add another sheet to quarterly progress format. To make MDAs users to write completion report.	23WM	No	Web -Smarty	more than 2 weeks	e-government	Normal	Wezi, Yvonne	Shalom	May	Attach Excel template Add COMPLETION_REPORT table, add completion report tab and contents in Quarterly Report view, add definition of COMPLETION_REPORT table in data.class.php, add loading spec of template info into loadspec.php	Ongoing	Completed.
24	How can we pay attention to ending projects.	label template indicating new,ongoing ,ending,pended,completed (when project is generated, need more appropriate project status)	24WM	No	Web -Smarty	1 week (or less than 1 week)	PSIP	Normal	Anderson	Gift	Apr	ONGOING (ENDING) --> Must be added to Template generator Modify the part in libTemplate.php, refer to the part which is making NEW(PIPELINE) indication.	Ongoing	Completed.

## Appendix E PSIP Database Detail Design Form (Page Design)

<b>Screen Design</b>	<b>Dev. No</b> 25	<b>Title</b>	Search condition using submission status	
		<b>Screen Name</b>	Project status screen	
		<b>Navigation</b>	Menu->Project status->Status & Approved Budget	
		<b>Responsible In PSIP</b>	Gift	<b>Date</b>
		<b>Screen Image or Hard Copy</b>		<b>Created date of this DDesign</b>
<b>Set corresponding Development No.(e.g 1)</b>				

### Status & Approved Budget

List the results of project status and approved budget

Please select Fiscal Year, Vote and project status

MFY:

Vote:

**Status:**  New  Ongoing  Pipeline  Pended  Ending  Rejected  Terminated  Check all

- 1 Add the Submission status (New, Ongoing, Ending) under Status.
 

Submission Status	<input checked="" type="checkbox"/> New	<input checked="" type="checkbox"/> Ongoing	<input checked="" type="checkbox"/> Ending
-------------------	---	---	--
- 2 Change Caption "Status" to "Recent Status"



Government of Malawi

# Public Sector Investment Programme (PSIP)

## PSIP DATABASE DATABASE SPECIFICATION

The Ministry of Finance, Economic Planning and Development  
Department of Economic Planning and Development  
P. O. Box 30136  
Lilongwe 3, Malawi

August 2017







PSIP Database Ver. 4 E-R Diagram

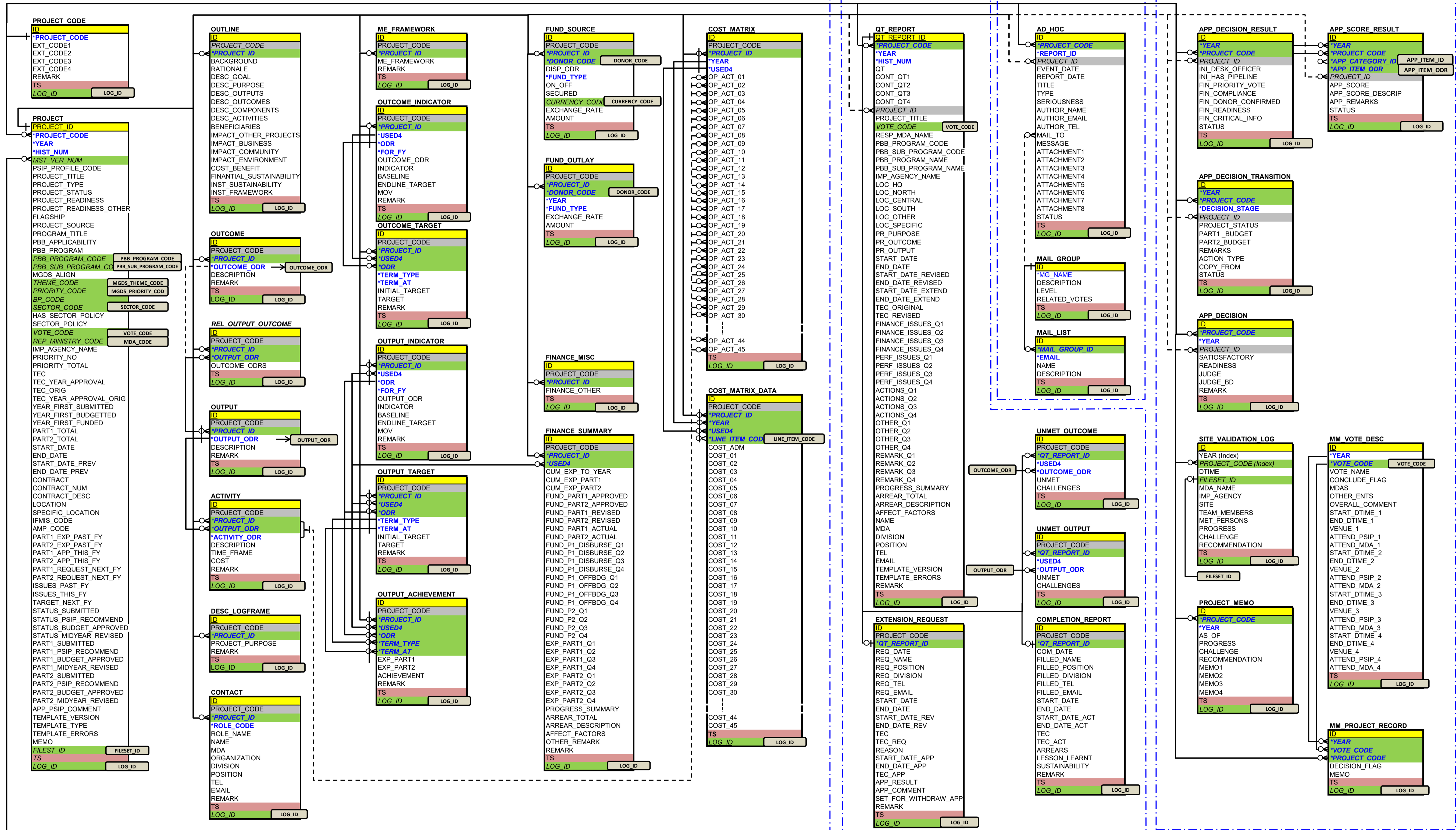
ABC PRIMARY KEY ABC FOREIGN KEY REFERENCE REFERENCE INFO TS TIME STAMP \*NATURAL KEY(S) REFERENCE POINT

PSIP Proposal

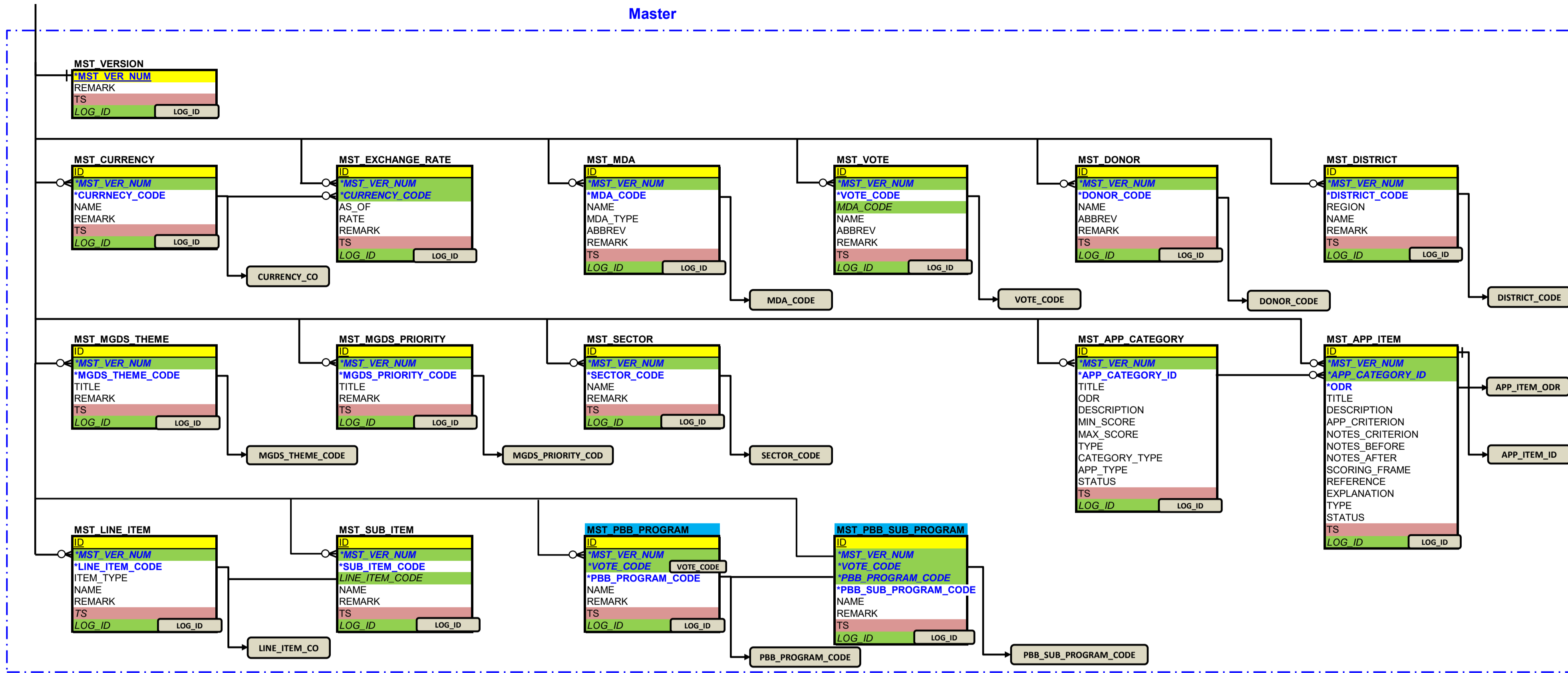
Quarterly Report

Ad-hoc Report

Appraisal



Master



**USER**

ID
*LOGIN_ID
FIRST_NAME
LAST_NAME
ROLE
*VOTE_CODE
PASS
PASS_CHANGE_FLAG
STATUS
GENDER
ORGANIZATION
POSITION
ADDRESS
POBOX
EMAIL1
EMAIL2
TEL1
TEL2
CELL1
CELL2
LAST_LOGIN_DATE
LOGIN_COUNT
TS

**CONST1**

ID
*SECTION
*NAME
VALUE
TS
LOG_ID

**PSIP\_OPERATION**

ID
CURRENT_YEAR
PSIP_STATUS
SUBMISSION_DEADLINE
TS
LOG_ID

**ANNOUNCEMENT**

ID
ODR
VALUE
REMARK
TS
LOG_ID

**SUBMISSION**

ID
PROJECT_CODE
PROJECT_TITLE
VOTE_CODE
REP_MINISTRY_CODE
TEMPLATE_YEAR
TEMPLATE_VERSION
TEMPLATE_TYPE
FILE_PATH
FILE_SIZE
FILE_NAME
FILE_TIMESTAMP
MODE
FLAG_SUBMITTED
FLAG_CHECKED
FLAG_LOADED
NUM_ERRORS
RESULT1
MESSAGE
TS
LOG_ID

**VOTE REWRITE**

ID
PROJECT_CODE
YEAR
FROM_VOTE_CODE
TO_VOTE_CODE
TS
LOG_ID

**FILE SET**

ID
FS_NAME
*PARENT_FILESET_ID
TS
LOG_ID

**FILE**

ID
*FILESET_ID
FNAME
MIME_TYPE
MEMO
TS
LOG_ID

**SCHEDULED JOB**

ID
JOB_TITLE
JOB_DESC
SCHEDULE_DTIME
MAX_DURATION
OPERATION
STATUS
START_DTIME
FINISH_DTIME
RESULT
TS
LOG_ID

**LOG**

ID
LOGIN_ID
*USER_ID
*LOGIN_TIME
LOGOUT_TIME
IP_ADDRESS
RESULT
REMARK
TS

PSIP OPERATION

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	CURRENT_YEAR	VARCHAR(20)	NOT NULL	Current Year	'2016'	
3	PSIP_STATUS	VARCHAR(20)		PSIP Status	'O'	See below
4	SUBMISSION_DEADLINE	VARCHAR(20)		Submission Deadline	'2016-10-31'	
5	TS	TIMESTAMP				
6	LOG_ID	INT		Log ID	10223	

}}

PROJECT CODE

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	*PROJECT_CODE	VARCHAR(20)	NOT NULL	Project Code	'14-320-001'	
3	EXT_CODE1	VARCHAR(20)		External system's project code 1		UPC
4	EXT_CODE2	VARCHAR(20)		External system's project code 2		IFMIS CODE?
5	EXT_CODE3	VARCHAR(20)		External system's project code 3		AMP CODE?
6	EXT_CODE4	VARCHAR(20)		External system's project code 4		
7	REMARK	TEXT		Remark		
8	TS	TIMESTAMP				
9	LOG_ID	INT		Log ID	10223	

}}

PROJECT

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	PROJECT_ID	INT	PRIMARY KEY AUTO_INCREMENT	Project ID	243	Surrogate key
2	*PROJECT_CODE	VARCHAR(20)	NOT NULL	Project Code	'14-320-001'	
3	*YEAR	INT	NOT NULL	Year	2015	2015 --> 2015/16
4	*HIST_NUM	INT	NOT NULL	History number	0	-1=Loader, 0=Current, 1,2,3...=Old
5	MST_VER_NUM	INT	NOT NULL	Master version number	110	
6	PSIP_PROFILE_CODE	VARCHAR(20)		PSIP profile code	143201109001	See below
7	PROJECT_TITLE	VARCHAR(400)	NOT NULL	Project Title	'Construction of XXX'	
8	PROJECT_TYPE	VARCHAR(3)		Project type	1	See below
9	PROJECT_STATUS	VARCHAR(10)		Project status (Latest)	'O'	
10	PROJECT_READINESS	VARCHAR(400)		Project rediness	'1,2,5,6,10'	Encoded, See below
11	PROJECT_READINESS_OTH	VARCHAR(1000)		Project rediness, other description	'Suggested by XXX'	
12	FLAGSHIP	VARCHAR(10)		Flagship		
13	PROJECT_SOURCE	VARCHAR(3)		Project origin	1	See below
14	PROGRAM_TITLE	VARCHAR(400)		Affiliating Programme Title	'YYY Programme'	
15	PBB_APPLICABILITY	VARCHAR(10)		PBB Applicability	'Yes'	'Yes' or 'No'
16	PBB_PROGRAM	VARCHAR(400)		PBB Program name	'A Program'	
17	PBB_PROGRAM_CODE	VARCHAR(4)		PBB Program code	'20'	
18	PBB_SUB_PROGRAM_CODE	VARCHAR(4)		PBB Sub Program code	'25'	
19	MGDS_ALIGN	VARCHAR(10)		Alignment to MGDS	'Yes'	'Yes' or 'No'
20	THEME_CODE	VARCHAR(10)		MGDS theme code	110	
21	PRIORITY_CODE	VARCHAR(10)		MGDS priority code	410	
22	BP_CODE	VARCHAR(10)		Budget program code	03	Not used since Ver.2
23	SECTOR_CODE	VARCHAR(10)		Sector code	104	
24	HAS_SECTOR_POLICY	VARCHAR(10)		Has Sector Policy?	'Yes'	'Yes' or 'No'
25	SECTOR_POLICY	VARCHAR(400)		Sector Policy	'The policy is ...'	
26	VOTE_CODE	VARCHAR(10)		Vote code	320	
27	REP_MINISTRY_CODE	VARCHAR(10)		Representing ministry code	320	
28	IMP_AGENCY_NAME	VARCHAR(200)		Implementing ministry name	'ABC University'	
29	PRIORITY_NO	VARCHAR(3)		Priority within the vote	1	
30	PRIORITY_TOTAL	VARCHAR(3)		Total number for priority	10	
31	TEC	DECIMAL(20,3)		Total estimated cost	123,456,789,012	TEC and
32	TEC_YEAR_APPROVAL	VARCHAR(5)		TEC year approval	2015	TEC_DATE_APPROVAL keep the
33	TEC_ORIG	DECIMAL(20,3)		Total estimated cost (original)	222,333,444,55	latest
34	TEC_YEAR_APPROVAL_ORIG	VARCHAR(5)		TEC year approval (original)	2014	XXX_ORIG keep the original
35	YEAR_FIRST_SUBMITTED	VARCHAR(5)		Year of 1st submitted	2014	
36	YEAR_FIRST_BUDGETTED	VARCHAR(5)		Year of 1st budgetted	2015	
37	YEAR_FIRST_FUNDED	VARCHAR(5)		Year of 1st funded	2015	
38	PART1_TOTAL	DECIMAL(20,3)		Part1 total	123,456,789,012	
39	PART2_TOTAL	DECIMAL(20,3)		Part2 total	123,456,789,012	
40	START_DATE	VARCHAR(10)		Start date	'201404'	
41	END_DATE	VARCHAR(10)		End date	'201703'	
42	START_DATE_PREV	VARCHAR(10)		Start date (Previous)	'201304'	
43	END_DATE_PREV	VARCHAR(10)		End date (Previous)	'201603'	
44	CONTRACT	VARCHAR(10)		Contract	'Y'	
45	CONTRACT_NUM	VARCHAR(3)		Number of contracts	2	
46	CONTRACT_DESC	VARCHAR(2000)		Contract description	'Amount: \$30,000 ...'	
47	LOCATION	VARCHAR(1000)		Location	#####	
48	SPECIFIC_LOCATION	VARCHAR(500)		Specific Location	'Traditional Authority'	
49	IFMIS_CODE	VARCHAR(10)		IFMIS code	067	
50	AMP_CODE	VARCHAR(20)		AMP code	8722612610804	
51	PART1_EXP_PAST_FY	DECIMAL(20,3)		FY2014/15 Expenditure PART I	123,456,789,012	Proposal for applied FY (On-Going)
52	PART2_EXP_PAST_FY	DECIMAL(20,3)		FY2014/15 Expenditure PART II	123,456,789,012	Proposal for applied FY (On-Going)
53	PART1_APP_THIS_FY	DECIMAL(20,3)		FY2015/16 Approved PART I	123,456,789,012	Proposal for applied FY (On-Going)
54	PART2_APP_THIS_FY	DECIMAL(20,3)		FY2015/16 Approved PART II	123,456,789,012	Proposal for applied FY (On-Going)
55	PART1_REQUEST_NEXT_FY	DECIMAL(20,3)		FY2016/17 Request PART I	123,456,789,012	Proposal for applied FY (New/On-G)
56	PART2_REQUEST_NEXT_FY	DECIMAL(20,3)		FY2016/17 Request PART II	123,456,789,012	Proposal for applied FY (New/On-G)
57	ISSUES_PAST_FY	TEXT		Issues & Challenges of past FY		Proposal for applied FY (On-Going)
58	ISSUES_THIS_FY	TEXT		Issues & Challenges of this FY		Proposal for applied FY (On-Going)
59	TARGET_NEXT_FY	TEXT		Target of next FY		
60	STATUS_SUBMITTED	VARCHAR(10)		Status (On submission)	'O'	See below
61	STATUS_PSIP_RECOMMENDED	VARCHAR(10)		Status (PSIP recommended)	'O'	See below
62	STATUS_BUDGET_APPROVED	VARCHAR(10)		Status (Budget approved)	'O'	See below
63	STATUS_MIDYEAR_REVISION	VARCHAR(10)		Status (Mid-year revised)	'O'	See below
64	PART1_SUBMITTED	DECIMAL(20,3)		Part1 (On submission)	333,444,555	
65	PART1_PSIP_RECOMMENDED	DECIMAL(20,3)		Part1 (PSIP recommended)	333,444,555	
66	PART1_BUDGET_APPROVED	DECIMAL(20,3)		Part1 (Budget approved)	333,444,555	
67	PART1_MIDYEAR_REVISION	DECIMAL(20,3)		Part1 (Mid-year revised)	333,444,555	
68	PART2_SUBMITTED	DECIMAL(20,3)		Part2 (On submission)	111,223,333	
69	PART2_PSIP_RECOMMENDED	DECIMAL(20,3)		Part2 (PSIP recommended)	111,223,333	
70	PART2_BUDGET_APPROVED	DECIMAL(20,3)		Part2 (Budget approved)	111,223,333	
71	PART2_MIDYEAR_REVISION	DECIMAL(20,3)		Part2 (Mid-year revised)	111,223,333	
72	APP_PSIP_COMMENT	TEXT		Appraisal PSIP comment		
73	TEMPLATE_VERSION	VARCHAR(10)		Template version	2.0.33	
74	TEMPLATE_TYPE	VARCHAR(1)		Template type	'N' or 'O'	
75	TEMPLATE_ERRORS	INT		Template errors	2	
76	MEMO	TEXT		Memo	'Merged into project ...'	
77	FILESET_ID	INT		Fileset ID	999	Fileset for attachments
78	TS	TIMESTAMP				
79	LOG_ID	INT		Log ID	10223	

}}

PROFILE\_CODE

i.e.) Supposed-code-format  
— YVVVTFPPSSS

Where:

YY: Year

VV: Vote code

T: Project Type

— 1 = Infrastructure

PROJECT\_TYPE

1 = Development/Infrastructure

2 = Development/Service

3 = Development/Hybrid

4 = Recurrent

PROJECT\_READINESS (multi-choice)

{{ CONTACT

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	<u>ID</u>	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	*ROLE_CODE	VARCHAR(10)	NOT NULL	Role	'PM'	
5	ROLE_NAME	VARCHAR(100)		Role name	'Project Auditor'	Empty if other than 'OT'
6	NAME	VARCHAR(100)		Name	'Thomas Cruise'	
7	MDA	VARCHAR(100)		MDA	'Ministry of Health'	
8	ORGANIZATION	VARCHAR(100)		Organization	'Malawi University'	
9	DIVISION	VARCHAR(100)		Division/Section/Unit	'Research division'	
10	POSITION	VARCHAR(100)		Position	'Chief accountant'	
11	TEL	VARCHAR(100)		Telephone	'09991234567'	
12	EMAIL	VARCHAR(100)		Email	'xxx@yyy.zzz'	
13	REMARK	VARCHAR(100)		Remark		
14	TS	TIMESTAMP				
15	LOG_ID	INT		Log ID	10223	

0.74

0.74

0.95

}}

**ROLE\_CODE**

- 'PM' = Project Manager
- 'PC' = Project Coordinator
- 'PB' = Programme Manager (PBB)
- 'RB' = Responsible Officer (Budgeting)
- 'RM' = Responsible Officer (M&E)
- 'PA' = Project Accountant
- 'PF' = Project Forcal Person
- 'CO' = Controlling Officer
- 'OT' = Other --> ROLE\_NAME is required

{{ OUTLINE

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	BACKGROUND	TEXT		Background		
5	RATIONALE	TEXT		Rationale		
6	DESC GOAL	TEXT		Overall goal		
7	DESC PURPOSE	TEXT		Purpose		
8	DESC OUTCOMES	TEXT		Outcomes		
9	DESC OUTPUTS	TEXT		Outputs		
10	DESC COMPONENTS	TEXT		Components (Ver.1.5)		
11	DESC ACTIVITIES	TEXT		Activities		
12	BENEFICIARIES	TEXT		Beneficialies		
13	IMPACT OTHER PROJECT	TEXT		Impact on projects		
14	IMPACT BUSINESS	TEXT		Impact on business sector		
15	IMPACT COMMUNITY	TEXT		Impact on proverty and Social		
16	IMPACT ENVIRONMENT	TEXT		Impact on environment		
17	COST BENEFIT	TEXT		Cost benefit analysis		
17	FINANTIAL SUSTAINABILIT	TEXT		Finantial Sustainability		
18	INST SUSTAINABILITY	TEXT		Institutional Sustainability		
19	INST FRAMEWORK	TEXT		Institutional framework		
20	TS	TIMESTAMP				
21	LOG_ID	INT		Log ID	10223	

0.7

}}

DESC LOGFRAME

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	<u>ID</u>	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	PROJECT_PURPOSE	VARCHAR(2000)		Project purpose	'The purpose is ...'	
5	REMARK	VARCHAR(100)		Remark		
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

}}

OUTCOME

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	<u>ID</u>	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	*OUTCOME_ODR	VARCHAR(5)	NOT NULL	Order (A, B, C ...)	'A'	
5	DESCRIPTION	VARCHAR(1000)		Descripton	'Outcome A is ...'	
6	REMARK	VARCHAR(100)		Remark		
7	TS	TIMESTAMP				
8	LOG_ID	INT		Log ID	10223	

}}

OUTPUT

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	<u>ID</u>	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	*OUTPUT_ODR	VARCHAR(5)	NOT NULL	Order (1, 2, 3 ...)	'1'	
5	DESCRIPTION	VARCHAR(1000)		Descripton	'Output 1 is ...'	
6	REMARK	VARCHAR(100)		Remark		
7	TS	TIMESTAMP				
8	LOG_ID	INT		Log ID	10223	

}}

REL\_OUTPUT\_OUTCOME

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	<u>ID</u>	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	*OUTPUT_ODR	VARCHAR(5)	NOT NULL	Order (1, 2, 3 ...)	'1'	
5	OUTCOME_ODRS	VARCHAR(5)	NOT NULL	Order (A, B, C ...)	'AB'	
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

}}

0.81

0.81

0.81

ACTIVITY

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	<u>ID</u>	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	*OUTPUT_ODR	VARCHAR(5)	NOT NULL	Order (1, 2, 3 ...)	'1'	
5	*ACTIVITY_ODR	VARCHAR(5)	NOT NULL	Order (1, 2, 3 ...)	'1'	
6	DESCRIPTION	VARCHAR(1000)		Descripton	'Activity 1 is ...'	
7	TIME_FRAME	VARCHAR(1000)		Time frame		For v1.5 compatibility
8	COST	VARCHAR(100)		Cost		For v1.5 compatibility
9	REMARK	VARCHAR(100)		Remark		
10	TS	TIMESTAMP				
11	LOG_ID	INT		Log ID	10223	

}}

ME FRAMEWORK

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	ME_FRAMEWORK	VARCHAR(2000)		M&E framework	'Ministry of Education does ...'	
5	REMARK	VARCHAR(100)		Remark		
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

OUTCOME INDICATOR

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	See below
4	*USED4	VARCHAR(5)	NOT NULL	Used for (What is this for?)	'Q4'	See below
5	*ODR	VARCHAR(5)		Order	'1'	
6	*FOR_FY	VARCHAR(5)		For FY	'2017'	
7	OUTCOME_ODR	VARCHAR(5)		Outcome Order (A, B, C ...)	'A'	
8	INDICATOR	VARCHAR(1000)		Indicator	'Indicator 1 is ...'	
9	BASELINE	VARCHAR(1000)		Baseline	'Baseline is ...'	
10	ENDLINE_TARGET	VARCHAR(1000)		Endline Target	'Endline is ...'	
11	MOV	VARCHAR(1000)		Means Of Verification	'Verification is ...'	
12	REMARK	VARCHAR(100)		Remark		
13	TS	TIMESTAMP				
14	LOG_ID	INT		Log ID	10223	

0.87  
4.00.02  
0.80

OUTCOME TARGET

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	See below
4	*USED4	VARCHAR(5)	NOT NULL	Used for (What is this for?)	'Q4'	See below
5	*ODR	VARCHAR(5)		Order	'1'	
6	*TERM_TYPE	VARCHAR(5)		Term type	'Q'	
7	*TERM_AT	VARCHAR(10)		Term at	'2015Q2'	
8	INITIAL_TARGET	VARCHAR(1000)		Term target	'Build 100 houses'	
9	TARGET	VARCHAR(1000)		Term target	'Build 90 houses'	
10	REMARK	VARCHAR(100)		Remark		
11	TS	TIMESTAMP				
12	LOG_ID	INT		Log ID	10223	

0.87  
0.74  
0.74

OUTPUT INDICATOR

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	See below
4	*USED4	VARCHAR(5)	NOT NULL	Used for (What is this for?)	'Q4'	See below
5	*ODR	VARCHAR(5)		Order	'1'	
6	*FOR_FY	VARCHAR(5)		For FY	'2017'	
7	OUTPUT_ODR	VARCHAR(5)		Output Order (1, 2, 3 ...)	'1'	
8	INDICATOR	VARCHAR(1000)		Indicator	'Indicator 1 is ...'	
9	BASELINE	VARCHAR(1000)		Baseline	'Baseline is ...'	
10	ENDLINE_TARGET	VARCHAR(1000)		Endline Target	'Endline is ...'	
11	MOV	VARCHAR(1000)		Means Of Verification	'Verification is ...'	
12	REMARK	VARCHAR(100)		Remark		
13	TS	TIMESTAMP				
14	LOG_ID	INT		Log ID	10223	

0.87  
4.00.02  
0.80

OUTPUT TARGET

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	See below
4	*USED4	VARCHAR(5)	NOT NULL	Used for (What is this for?)	'Q4'	See below
5	*ODR	VARCHAR(5)		Order	'1'	
6	*TERM_TYPE	VARCHAR(5)		Term type	'Q'	
7	*TERM_AT	VARCHAR(10)		Term at	'2015Q2'	
8	INITIAL_TARGET	VARCHAR(1000)		Term target	'Build 100 houses'	Annual?
9	TARGET	VARCHAR(1000)		Term target	'Build 90 houses'	Annual?
10	REMARK	VARCHAR(100)		Remark		
11	TS	TIMESTAMP				
12	LOG_ID	INT		Log ID	10223	

0.87  
0.74  
0.74

OUTPUT ACHIEVEMENT

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	See below
4	*USED4	VARCHAR(5)		Used for (What is this for?)	'Q4'	See below
5	*ODR	VARCHAR(5)		Order	'1'	
6	*TERM_TYPE	VARCHAR(5)		Term type	'Q'	
7	*TERM_AT	VARCHAR(10)		Term at	'2015Q2'	
8	EXP_PART1	DECIMAL(20,3)		Expenditure Part1		
9	EXP_PART2	DECIMAL(20,3)		Expenditure Part2		
10	ACHIEVEMENT	TEXT				
11	REMARK	VARCHAR(100)		Remark		
12	TS	TIMESTAMP				
13	LOG_ID	INT		Log ID	10223	

0.87  
0.80  
0.80  
0.74

FINANCE SUMMARY

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
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0.80  
0.80

1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key	0.80
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference	0.80
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	See below	0.87
4	*USED4	VARCHAR(5)		Used for (What is this for?)	'Q4'	See below	0.80
5	*TERM_TYPE	VARCHAR(5)		Term type	'Y'		
6	*TERM_AT	VARCHAR(10)		Term at	'2015'		
7	CUM EXP TO YEAR	VARCHAR(10)		Cumulative Expenditure to year			0.80
8	CUM EXP PART1	DECIMAL(20,3)		Cumulative Expenditure PART 1			0.80
9	CUM EXP PART2	DECIMAL(20,3)		Cumulative Expenditure PART 2			0.80
10	FUND PART1 APPROVED	DECIMAL(20,3)		Approved Provisoin / Commitment PART 1			0.80
11	FUND PART2 APPROVED	DECIMAL(20,3)		Approved Provisoin / Commitment PART 2			0.80
12	FUND PART1 REVISED	DECIMAL(20,3)		Revised Provisoin / Commitment PART 1			0.80
13	FUND PART2 REVISED	DECIMAL(20,3)		Revised Provisoin / Commitment PART 2			0.80
14	FUND PART1 ACTUAL	DECIMAL(20,3)		Actual Funding/Disbursement PART 1			0.80
15	FUND PART2 ACTUAL	DECIMAL(20,3)		Actual Funding/Disbursement PART 2			0.80
16	FUND P1 DISBURSE Q1	DECIMAL(20,3)		Part1 disbursement (Q1)			0.95
17	FUND P1 DISBURSE Q2	DECIMAL(20,3)		Part1 disbursement (Q2)			0.95
18	FUND P1 DISBURSE Q3	DECIMAL(20,3)		Part1 disbursement (Q3)			0.95
19	FUND P1 DISBURSE Q4	DECIMAL(20,3)		Part1 disbursement (Q4)			0.95
20	FUND P1 OFFBDG Q1	DECIMAL(20,3)		Part1 off budget (Q1)			0.95
21	FUND P1 OFFBDG Q2	DECIMAL(20,3)		Part1 off budget (Q2)			0.95
22	FUND P1 OFFBDG Q3	DECIMAL(20,3)		Part1 off budget (Q3)			0.95
23	FUND P1 OFFBDG Q4	DECIMAL(20,3)		Part1 off budget (Q4)			0.95
24	FUND P2 Q1	DECIMAL(20,3)		Part2 funding (Q1)			0.95
25	FUND P2 Q2	DECIMAL(20,3)		Part2 funding (Q2)			0.95
26	FUND P2 Q3	DECIMAL(20,3)		Part2 funding (Q3)			0.95
27	FUND P2 Q4	DECIMAL(20,3)		Part2 funding (Q4)			0.95
28	EXP PART1 Q1	DECIMAL(20,3)		Expenditure Part1 (Q1)			0.80
29	EXP PART1 Q2	DECIMAL(20,3)		Expenditure Part1 (Q2)			0.80
30	EXP PART1 Q3	DECIMAL(20,3)		Expenditure Part1 (Q3)			0.80
31	EXP PART1 Q4	DECIMAL(20,3)		Expenditure Part1 (Q4)			0.80
32	EXP PART2 Q1	DECIMAL(20,3)		Expenditure Part2 (Q1)			0.80
33	EXP PART2 Q2	DECIMAL(20,3)		Expenditure Part2 (Q2)			0.80
34	EXP PART2 Q3	DECIMAL(20,3)		Expenditure Part2 (Q3)			0.80
35	EXP PART2 Q4	DECIMAL(20,3)		Expenditure Part2 (Q4)			0.80
36	PROGRESS SUMMARY	TEXT		Progress summary			3.02.01
37	ARREAR TOTAL	DECIMAL(20,3)		Arrear Total			0.80
38	ARREAR DESCRIPTION	TEXT		Arrear description			0.80
39	AFFECT FACTORS	TEXT		Factors and issues affecting implementation			0.80
40	OTHER REMARK	TEXT		Any other remarks			3.03
41	REMARK	VARCHAR(100)		Remark			0.80
42	TS	TIMESTAMP					0.80
43	LOG_ID	INT		Log ID	10223		0.80

}}

**TERM\_TYPE**  
'Y' = Year  
'2Y' = Bi-Year  
'Q' = Quarter  
'2Q' = Bi-Quarter  
'M' = Month  
'2M' = Bi-Month  
'CU'=Cummlative

**USED4**  
'T'=Total Project period (New Proposal)  
'A'=Annual (On-Going proposal)  
'Q'=Quarterly report

**PROJECT\_ID**  
There are 2 cases as below.  
[Annual Proposal]  
PROJECT.PROJECT\_ID  
[Quarterly Report]

**TERM\_AT**  
- In case TERM\_TYPE='Y' or '2' QT\_REPORT.QT\_REPORT\_ID  
'2015'  
- In case TERM\_TYPE='Q' or '2Q'  
'2015Q1' --> 2015 Q1  
- In case TERM\_TYPE='M' or '2M'  
'201506' --> 2015 June  
- In case TERM\_TYPE='CU'  
'2013' --> Cummulative achievement asof 2013/14

0.86b

0.74  
0.74



{{ FUND\_SOURCE

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	*DONOR_CODE	VARCHAR(5)	NOT NULL	Donor code	'20'	'00' = GoM
5	DISP_ODR	VARCHAR(5)		Donor order (for display)	'1'	
6	*FUND_TYPE	VARCHAR(5)		Fund type (Grant Loan)	'Grant'	Added as a unique k
7	ON_OFF	VARCHAR(5)		On/Off budget	'On'	
8	FUND_START_YEAR	VARCHAR(8)		Funding start year	2015 or 20150701	
9	FUND_END_YEAR	VARCHAR(8)		Funding end year	2016 or 20160630	
10	SECURED	VARCHAR(5)		Secured? (Y N)	'Y'	
11	CURRENCY_CODE	VARCHAR(5)		Currency code	'USD'	
12	EXCHANGE_RATE	DECIMAL(20,9)		Exchange rate	409.0219	
13	AMOUNT	DECIMAL(20,3)		Fund amount (total)	10,000,000	In specified currency
14	REMARK	VARCHAR(1000)		Remark	'Information about ..'	
15	TS	TIMESTAMP				
16	LOG_ID	INT		Log ID	10223	

{{ FUND\_OUTLAY

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	*DONOR_CODE	VARCHAR(5)	NOT NULL	Donor code	'18'	'00'=GoM, ***=Part1 total
5	*FUND_TYPE	VARCHAR(5)		Fund type (Grant Loan)	'Grant'	Added as a unique k
6	*YEAR	VARCHAR(5)		Year	2015	2015 --> 2015/16
7	EXCHANGE_RATE	DECIMAL(20,9)		Exchange rate	409.0219	
8	AMOUNT	DECIMAL(20,3)		Fund amount	2,562,330	
9	TS	TIMESTAMP				
10	LOG_ID	INT		Log ID	10223	

{{ FINANCE\_MISC

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	FINANCE_OTHER	VARCHAR(2000)		Others Highlight ...		
5	TS	TIMESTAMP				
6	LOG_ID	INT		Log ID	10223	

{} COST MATRIX

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	*YEAR	VARCHAR(5)	NOT NULL	Fiscal year	2015	Ignore if Usage='T'
5	*USED4	VARCHAR(5)	NOT NULL	Used for (What is this for?)	'Q4'	See below
6	OP ACT 01	VARCHAR(10)		OUTPUT-ACTIVITY 01	'1-1'	
7	OP ACT 02	VARCHAR(10)		OUTPUT-ACTIVITY 02	'1-1'	
8	OP ACT 03	VARCHAR(10)		OUTPUT-ACTIVITY 03	'1-1'	
9	OP ACT 04	VARCHAR(10)		OUTPUT-ACTIVITY 04	'1-1'	
10	OP ACT 05	VARCHAR(10)		OUTPUT-ACTIVITY 05	'1-1'	
11	OP ACT 06	VARCHAR(10)		OUTPUT-ACTIVITY 06	'1-1'	
12	OP ACT 07	VARCHAR(10)		OUTPUT-ACTIVITY 07	'1-1'	
13	OP ACT 08	VARCHAR(10)		OUTPUT-ACTIVITY 08	'1-1'	
14	OP ACT 09	VARCHAR(10)		OUTPUT-ACTIVITY 09	'1-1'	
15	OP ACT 10	VARCHAR(10)		OUTPUT-ACTIVITY 10	'1-1'	
16	OP ACT 11	VARCHAR(10)		OUTPUT-ACTIVITY 11	'1-1'	
17	OP ACT 12	VARCHAR(10)		OUTPUT-ACTIVITY 12	'1-1'	
18	OP ACT 13	VARCHAR(10)		OUTPUT-ACTIVITY 13	'1-1'	
19	OP ACT 14	VARCHAR(10)		OUTPUT-ACTIVITY 14	'1-1'	
20	OP ACT 15	VARCHAR(10)		OUTPUT-ACTIVITY 15	'1-1'	
21	OP ACT 16	VARCHAR(10)		OUTPUT-ACTIVITY 16	'1-1'	
22	OP ACT 17	VARCHAR(10)		OUTPUT-ACTIVITY 17	'1-1'	
23	OP ACT 18	VARCHAR(10)		OUTPUT-ACTIVITY 18	'1-1'	
24	OP ACT 19	VARCHAR(10)		OUTPUT-ACTIVITY 19	'1-1'	
25	OP ACT 20	VARCHAR(10)		OUTPUT-ACTIVITY 20	'1-1'	
26	OP ACT 21	VARCHAR(10)		OUTPUT-ACTIVITY 21	'1-1'	
27	OP ACT 22	VARCHAR(10)		OUTPUT-ACTIVITY 22	'1-1'	
28	OP ACT 23	VARCHAR(10)		OUTPUT-ACTIVITY 23	'1-1'	
29	OP ACT 24	VARCHAR(10)		OUTPUT-ACTIVITY 24	'1-1'	
30	OP ACT 25	VARCHAR(10)		OUTPUT-ACTIVITY 25	'1-1'	
31	OP ACT 26	VARCHAR(10)		OUTPUT-ACTIVITY 26	'1-1'	
32	OP ACT 27	VARCHAR(10)		OUTPUT-ACTIVITY 27	'1-1'	
33	OP ACT 28	VARCHAR(10)		OUTPUT-ACTIVITY 28	'1-1'	
34	OP ACT 29	VARCHAR(10)		OUTPUT-ACTIVITY 29	'1-1'	
35	OP ACT 30	VARCHAR(10)		OUTPUT-ACTIVITY 30	'1-1'	
36	OP ACT 31	VARCHAR(10)		OUTPUT-ACTIVITY 31	'1-1'	
37	OP ACT 32	VARCHAR(10)		OUTPUT-ACTIVITY 32	'1-1'	
38	OP ACT 33	VARCHAR(10)		OUTPUT-ACTIVITY 33	'1-1'	
39	OP ACT 34	VARCHAR(10)		OUTPUT-ACTIVITY 34	'1-1'	
40	OP ACT 35	VARCHAR(10)		OUTPUT-ACTIVITY 35	'1-1'	
41	OP ACT 36	VARCHAR(10)		OUTPUT-ACTIVITY 36	'1-1'	
42	OP ACT 37	VARCHAR(10)		OUTPUT-ACTIVITY 37	'1-1'	
43	OP ACT 38	VARCHAR(10)		OUTPUT-ACTIVITY 38	'1-1'	
44	OP ACT 39	VARCHAR(10)		OUTPUT-ACTIVITY 39	'1-1'	
45	OP ACT 40	VARCHAR(10)		OUTPUT-ACTIVITY 40	'1-1'	
46	OP ACT 41	VARCHAR(10)		OUTPUT-ACTIVITY 41	'1-1'	
47	OP ACT 42	VARCHAR(10)		OUTPUT-ACTIVITY 42	'1-1'	
48	OP ACT 43	VARCHAR(10)		OUTPUT-ACTIVITY 43	'1-1'	
49	OP ACT 44	VARCHAR(10)		OUTPUT-ACTIVITY 44	'1-1'	
50	OP ACT 45	VARCHAR(10)		OUTPUT-ACTIVITY 45	'1-1'	
51	TS	TIMESTAMP				
52	LOG_ID	INT		Log ID	10223	

}}

{} COST MATRIX DATA

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO INCREMENT	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*PROJECT_ID	INT	NOT NULL	Project ID	23	
4	*YEAR	VARCHAR(5)	NOT NULL	Fiscal year	2015	Ignore if Usage='T'
5	*USED4	VARCHAR(5)	NOT NULL	Usage code (What is this	'T'	See below
6	*LINE_ITEM_CODE	VARCHAR(10)	NOT NULL	Budget item code	'01'	
7	COST ADM	DECIMAL(20,3)		Cost of Administrative		
8	COST 01	DECIMAL(20,3)		Cost of OP ACT 01		
9	COST 02	DECIMAL(20,3)		Cost of OP ACT 02		
10	COST 03	DECIMAL(20,3)		Cost of OP ACT 03		
11	COST 04	DECIMAL(20,3)		Cost of OP ACT 04		
12	COST 05	DECIMAL(20,3)		Cost of OP ACT 05		
13	COST 06	DECIMAL(20,3)		Cost of OP ACT 06		
14	COST 07	DECIMAL(20,3)		Cost of OP ACT 07		
15	COST 08	DECIMAL(20,3)		Cost of OP ACT 08		
16	COST 09	DECIMAL(20,3)		Cost of OP ACT 09		
17	COST 10	DECIMAL(20,3)		Cost of OP ACT 10		
18	COST 11	DECIMAL(20,3)		Cost of OP ACT 11		
19	COST 12	DECIMAL(20,3)		Cost of OP ACT 12		
20	COST 13	DECIMAL(20,3)		Cost of OP ACT 13		
21	COST 14	DECIMAL(20,3)		Cost of OP ACT 14		
22	COST 15	DECIMAL(20,3)		Cost of OP ACT 15		
23	COST 16	DECIMAL(20,3)		Cost of OP ACT 16		
24	COST 17	DECIMAL(20,3)		Cost of OP ACT 17		
25	COST 18	DECIMAL(20,3)		Cost of OP ACT 18		
26	COST 19	DECIMAL(20,3)		Cost of OP ACT 19		
27	COST 20	DECIMAL(20,3)		Cost of OP ACT 20		
28	COST 21	DECIMAL(20,3)		Cost of OP ACT 21		
29	COST 22	DECIMAL(20,3)		Cost of OP ACT 22		
30	COST 23	DECIMAL(20,3)		Cost of OP ACT 23		
31	COST 24	DECIMAL(20,3)		Cost of OP ACT 24		
32	COST 25	DECIMAL(20,3)		Cost of OP ACT 25		
33	COST 26	DECIMAL(20,3)		Cost of OP ACT 26		
34	COST 27	DECIMAL(20,3)		Cost of OP ACT 27		
35	COST 28	DECIMAL(20,3)		Cost of OP ACT 28		
36	COST 29	DECIMAL(20,3)		Cost of OP ACT 29		
37	COST 30	DECIMAL(20,3)		Cost of OP ACT 30		

0.7

38	COST 31	DECIMAL(20,3)		Cost of OP ACT 31			1
39	COST 32	DECIMAL(20,3)		Cost of OP ACT 32			1
40	COST 33	DECIMAL(20,3)		Cost of OP ACT 33			1
41	COST 34	DECIMAL(20,3)		Cost of OP ACT 34			1
42	COST 35	DECIMAL(20,3)		Cost of OP ACT 35			1
43	COST 36	DECIMAL(20,3)		Cost of OP ACT 36			1
44	COST 37	DECIMAL(20,3)		Cost of OP ACT 37			1
45	COST 38	DECIMAL(20,3)		Cost of OP ACT 38			1
46	COST 39	DECIMAL(20,3)		Cost of OP ACT 39			1
47	COST 40	DECIMAL(20,3)		Cost of OP ACT 40			1
48	COST 41	DECIMAL(20,3)		Cost of OP ACT 41			1
49	COST 42	DECIMAL(20,3)		Cost of OP ACT 42			1
50	COST 43	DECIMAL(20,3)		Cost of OP ACT 43			1
51	COST 44	DECIMAL(20,3)		Cost of OP ACT 44			1
52	COST 45	DECIMAL(20,3)		Cost of OP ACT 45			1
53	TS	TIMESTAMP					
54	LOG_ID	INT		Log ID	10223		

}}

**USED4**

- 'T'=Total Project period
- 'A'=Annual
- 'Q'=Quarterly report
- 'Q1'=Quarterly report, Quarter1
- 'Q2'=Quarterly report, Quarter2
- 'Q3'=Quarterly report, Quarter3
- 'Q4'=Quarterly report, Quarter4
- 'Q1R'=Quarterly report, Quarter1 Revised
- 'Q2R'=Quarterly report, Quarter2 Revised
- 'Q3R'=Quarterly report, Quarter3 Revised
- 'Q4R'=Quarterly report, Quarter4 Revised

QT\_REPORT

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	QT_REPORT_ID	INT	PRIMARY KEY	Quarterly Report ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project code	'14320001'	
3	YEAR	VARCHAR(5)		Year	2015	2015 --> 2015/16
4	HIST_NUM	INT		History number	0	-1=Loader, 0=Current, 1,2,3...
5	QT	VARCHAR(2)		Quarter	2	2-->Q2
6	CONT_QT1	VARCHAR(1)		Contents of Quarter 1 (Flag)	'Y'	'Y' or other (NULL or 'N')
7	CONT_QT2	VARCHAR(1)		Contents of Quarter 2 (Flag)	'Y'	'Y' or other (NULL or 'N')
8	CONT_QT3	VARCHAR(1)		Contents of Quarter 3 (Flag)	'Y'	'Y' or other (NULL or 'N')
9	CONT_QT4	VARCHAR(1)		Contents of Quarter 4 (Flag)	'Y'	'Y' or other (NULL or 'N')
10	PROJECT_ID	INT	NOT NULL	Project ID	23	To identify Outcome, Output, Activity, Indicators and Achievement info
11	PROJECT_TITLE	VARCHAR(400)	NOT NULL	Project Title	'Construction of XXX'	
12	VOTE_CODE	VARCHAR(10)		Vote code	'320'	
13	RESP_MDA_NAME	VARCHAR(200)		Responsible MDA	'Ministry of Education, Science and Technology'	
13	PBB_PROGRAM_CODE	VARCHAR(5)		PBB program code	'49'	
14	PBB_SUB_PROGRAM_CO	VARCHAR(5)		PBB sub-program name	'02'	
14	PBB_PROGRAM_NAME	VARCHAR(200)		PBB program name	'49. Agricultural Productivity and Risk Management'	
15	PBB_SUB_PROGRAM NA	VARCHAR(200)		PBB sub-program name	'02. Agribusiness Development'	
16	IMP_AGENCY_NAME	VARCHAR(200)		Implementing ministry name	'ABC University'	
17	LOC_HQ	TEXT		Location: Headquarters		
18	LOC_NORTH	TEXT		Location: Northern Region		
19	LOC_CENTRAL	TEXT		Location: Central		
20	LOC_SOUTH	TEXT		Location: Southern Region		
21	LOC_OTHER	TEXT		Location: Other		
22	LOC_SPECIFIC	TEXT		Location: Specific location		
23	PR_PURPOSE	TEXT		Project Purpose		
24	PR_OUTCOME	TEXT		Project Outcome		
25	PR_OUTPUT	TEXT		Project Output		
26	START_DATE	VARCHAR(10)		Start date	'201404'	
27	END_DATE	VARCHAR(10)		End date	'201703'	
28	START_DATE REVISED	VARCHAR(10)		Start date (Revised)	'201304'	
29	END_DATE REVISED	VARCHAR(10)		End date (Revised)	'201603'	
30	START_DATE EXTEND	VARCHAR(10)		Start date (Revised)	'201304'	Not used since 3.06
31	END_DATE EXTEND	VARCHAR(10)		End date (Revised)	'201706'	Not used since 3.06
32	TEC_ORIGINAL	DECIMAL(20,3)		Original Total Estimated Cost	123,456,789,012	
33	TEC REVISED	DECIMAL(20,3)		Total estimated cost (Revised)	222,333,444,55	
34	FINANCE_ISSUES Q1	TEXT		Financial issues (Q1)		
35	FINANCE_ISSUES Q2	TEXT		Financial issues (Q2)		
36	FINANCE_ISSUES Q3	TEXT		Financial issues (Q3)		
37	FINANCE_ISSUES Q4	TEXT		Financial issues (Q4)		
38	PERF_ISSUES Q1	TEXT		Performance issues (Q1)		
39	PERF_ISSUES Q2	TEXT		Performance issues (Q2)		
40	PERF_ISSUES Q3	TEXT		Performance issues (Q3)		
41	PERF_ISSUES Q4	TEXT		Performance issues (Q4)		
42	ACTIONS Q1	TEXT		Actions taken (Q1)		
43	ACTIONS Q2	TEXT		Actions taken (Q2)		
44	ACTIONS Q3	TEXT		Actions taken (Q3)		
45	ACTIONS Q4	TEXT		Actions taken (Q4)		
46	OTHER Q1	TEXT		Other achievements (Q1)		
47	OTHER Q2	TEXT		Other achievements (Q2)		
48	OTHER Q3	TEXT		Other achievements (Q3)		
49	OTHER Q4	TEXT		Other achievements (Q4)		
50	REMARK Q1	TEXT		Remark (Q1)		
51	REMARK Q2	TEXT		Remark (Q2)		
52	REMARK Q3	TEXT		Remark (Q3)		
53	REMARK Q4	TEXT		Remark (Q4)		
54	PROGRESS_SUMMARY	TEXT		Progress summary		
55	ARREAR_TOTAL	DECIMAL(20,3)		Arrear Total		
56	ARREAR_DESCRIPTION	TEXT		Arrear description		
57	AFFECT_FACTORS	TEXT		Factors and issues affecting implementation		
58	NAME	VARCHAR(100)		Name	'Thomas Cruise'	
59	MDA	VARCHAR(100)		MDA	'Ministry of Health'	
60	DIVISION	VARCHAR(100)		Division/Section/Unit	'Research division'	
61	POSITION	VARCHAR(100)		Position	'Chief accountant'	
62	TEL	VARCHAR(100)		Telephone	'09991234567'	
63	EMAIL	VARCHAR(100)		Email	'xxx@yyy.zzz'	
64	TEMPLATE_VERSION	VARCHAR(10)		Template version	2.0.33	
65	TEMPLATE_ERRORS	INT		Template errors	2	
66	REMARK	VARCHAR(100)		Remark		
67	TS	TIMESTAMP				
68	LOG_ID	INT		Log ID	10223	

EXTENSION\_REQUEST

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	QT_REPORT_ID	INT		Quarterly Report ID	455	
4	REQ_DATE	VARCHAR(10)		Requested date	'201404'	
5	REQ_NAME	VARCHAR(100)		Requester's name		
6	REQ_POSITION	VARCHAR(100)		Requester's position		
7	REQ_DIVISION	VARCHAR(100)		Requester's division		
8	REQ_TEL	VARCHAR(100)		Requester's telephone number		
9	REQ_EMAIL	VARCHAR(100)		Requester's email		
10	START_DATE	VARCHAR(10)		Start date (original)		
11	END_DATE	VARCHAR(10)		End date (original)		
12	START_DATE REV	VARCHAR(10)		Start date (revised)		
13	END_DATE REV	VARCHAR(10)		End date (revised)		
14	TEC	DECIMAL(20,3)		Total Estimated Cost (Original)		
15	TEC_REQ	DECIMAL(20,3)		Total Estimated Cost (Requested)		
16	REASON	VARCHAR(2000)		Reason for change / extension		
17	START_DATE APP	VARCHAR(10)		Start date (approved)		
18	END_DATE APP	VARCHAR(10)		End date (approved)		
19	TEC_APP	DECIMAL(20,3)		Total Estimated Cost (approved)		
20	APP_RESULT	VARCHAR(1)		Approval result	'F'	'F'=Fully approved 'P'=Partially approved 'R'=Rejected
21	APP_COMMENT	VARCHAR(2000)		Approval comment		
22	SET_FOR_WITHDRAW_AP	VARCHAR(200)		Set clause for withdrawing approval	tec=100000, tec_year_approval=2015, tec_orig=90000, tec_year_approval_orig=2009, start_date=200907, end_date=201806, start_date_prev=200907, end_date_prev=201506	This is used to update project table to restore previous value of those columns when extension approval is withdrawn
23	REMARK	VARCHAR(100)		Remark		
24	TS	TIMESTAMP				
25	LOG_ID	INT		Log ID	10223	

This table is added in Ver.3.02.01

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{{ COMPLETION_REPORT

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No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*QT_REPORT_ID	INT		Quarterly Report ID	455	
4	COM_DATE	VARCHAR(10)		Completion date	'201404'	
5	FILLED_NAME	VARCHAR(100)		Filled person's name		
6	FILLED_POSITION	VARCHAR(100)		Filled person's position		
7	FILLED_DIVISION	VARCHAR(100)		Filled person's division		
8	FILLED_TEL	VARCHAR(100)		Filled person's telephone number		
9	FILLED_EMAIL	VARCHAR(100)		Filled person's email		
10	START_DATE	VARCHAR(10)		Start date (original)		
11	END_DATE	VARCHAR(10)		End date (original)		
12	START_DATE_ACT	VARCHAR(10)		Start date (actual)		
13	END_DATE_ACT	VARCHAR(10)		End date (actual)		
14	TEC	DECIMAL(20,3)		Total Estimated Cost (Original)		
15	TEC_ACT	DECIMAL(20,3)		Total Estimated Cost (Actual)		
16	ARREARS	DECIMAL(20,3)		Amount of arrears		
17	LESSON_LEARNT	VARCHAR(2000)		Lesson learnt		
18	SUSTAINABILITY	VARCHAR(2000)		Sustainability		
19	REMARK	VARCHAR(100)		Remark		
20	TS	TIMESTAMP				
21	LOG_ID	INT		Log ID	10223	

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{{ UNMET_OUTCOME

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No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*QT_REPORT_ID	INT		Quarterly Report ID	455	
4	*USED4	VARCHAR(5)	NOT NULL	Used for (What is this for?)	'E'	'E'=Extension Report 'C'=Completion Report
5	*OUTCOME_ODR	VARCHAR(5)	NOT NULL	Order (A, B, C ...)	'A'	
6	UNMET	VARCHAR(1)		Unmet	'Y'	'Y' or other (NULL or 'N')
7	CHALLENGES	VARCHAR(2000)		Challenges		
8	TS	TIMESTAMP				
9	LOG_ID	INT		Log ID	10223	

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{{ UNMET_OUTPUT

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No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'14-320-001'	For reference
3	*QT_REPORT_ID	INT		Quarterly Report ID	455	
4	*USED4	VARCHAR(5)	NOT NULL	Used for (What is this for?)	'E'	'E'=Extension Report 'C'=Completion Report
5	*OUTPUT_ODR	VARCHAR(5)	NOT NULL	Order (1, 2, 3 ...)	'1'	
6	UNMET	VARCHAR(1)		Unmet	'Y'	'Y' or other (NULL or 'N')
7	CHALLENGES	VARCHAR(2000)		Challenges		
8	TS	TIMESTAMP				
9	LOG_ID	INT		Log ID	10223	

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APP SCORE RESULT

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	Appraisal result ID	3041	
2	*YEAR	VARCHAR(5)	NOT NULL		2017	
3	*PROJECT CODE	VARCHAR(10)	NOT NULL		1100	
4	*APP CATEGORY ID	VARCHAR(10)	NOT NULL	Appraisal category ID	N1', 'O2'	
5	*APP ITEM ODR	INT	NOT NULL	Order	1	
6	PROJECT_ID	VARCHAR(100)			1234	
7	APP_SCORE	INT			2	
8	APP_SCORE_DESCRIP	VARCHAR(1000)			yes', 'the project h	descriptive score
9	APP_REMARKS	VARCHAR(1000)				
10	STATUS	VARCHAR(10)		Status		'D'=Disable
11	TS	TIMESTAMP				
12	LOG_ID	INT		Log ID	10223	

APP DECISION

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	Appraisal decision ID	3041	
2	*PROJECT CODE	VARCHAR(20)	NOT NULL	Project code	'16-270-001'	
3	*YEAR	VARCHAR(5)	NOT NULL	Year	2015	
4	PROJECT_ID	INT	NOT NULL	Project ID	23	To identify corresponding project info.
5	SATISFACTORY	VARCHAR(200)		Satisfactory		
6	READINESS	VARCHAR(200)		Readiness		
7	JUDGE	VARCHAR(5)		Judge		'N' = New, 'O' = On-Going, 'P' = Pipelined, 'S' = Pended, 'E' = Ending, 'T' = Terminated
8	JUDGE_BD	VARCHAR(5)		Judge by BD		'N' = New, 'O' = On-Going, 'P' = Pipelined, 'S' = Pended, 'E' = Ending, 'T' = Terminated
9	REMARK	VARCHAR(2000)		Remark		
10	TS	TIMESTAMP				
11	LOG_ID	INT		Log ID	10223	

0.89

0.82

0.85f

0.93

0.89

APP DECISION RESULT

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	3041	
2	*YEAR	VARCHAR(5)	NOT NULL	Year	2017	
3	*PROJECT CODE	VARCHAR(10)	NOT NULL	Project Code	1100	
4	PROJECT_ID	INT		Project ID	1234	
5	INI_DESK_OFFICER	VARCHAR(100)		Dek officer name	Shalom	
6	INI_HAS_PIPELINE	VARCHAR(1000)		if has pipeline	No, ...	
7	FIN_PRIORITY_VOTE	INT		Final appraisal priority of vote	1	
8	FIN_COMPLIANCE	INT		Final appraisal compliance	1	
9	FIN_DONOR_CONFIRMED	INT		Final appraisal donor confirm	1	
10	FIN_READINESS	INT		Final appraisal readiness	1	
11	FIN_CRITICAL_INFO	VARCHAR(1000)		Final appraisal critical info		
12	STATUS	VARCHAR(10)		Status		'D'=Disable
13	TS	TIMESTAMP				
14	LOG_ID	INT		Log ID	10223	

APP DECISION TRANSITION

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	3041	
2	*YEAR	VARCHAR(5)	NOT NULL	Year	2017	
3	*PROJECT CODE	VARCHAR(10)	NOT NULL	Project code	1100	
4	*DECISION_STAGE	VARCHAR(5)		Decision timing	'A'	'I' = Init Appraisal 'A' = Case A, 'B' = Case B, 'C' = Case C 'D' = Case D, 'L' = Allocation adjustment, 'P' = Approved budget,
5	PROJECT_ID	INT		Project ID	1234	
6	PROJECT_STATUS	VARCHAR(5)		Project status	'N'	'N' = New, 'O' = On-Going, 'P' = Pipelined, 'S' = Pended, 'E' = Ending, 'T' = Terminated
7	PART1_BUDGET	DECIMAL(20,3)		Part1 budget		
8	PART2_BUDGET	DECIMAL(20,3)		Part2 budget		
9	REMARKS	VARCHAR(1000)		Remark		
10	ACTION_TYPE	VARCHAR(2)		Action Type	'C', 'E'	C'=Copy, 'E'=Edit, 'S'=Save
11	COPY_FROM	VARCHAR(10)		Copy from		
12	STATUS	VARCHAR(10)		Status		'D'=Disable
13	TS	TIMESTAMP				
14	LOG_ID	INT		Log ID	10223	

3.01.04

3.01.04

3.01.04

3.01.05

3.02.06

MM VOTE\_DESC

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO INCREMENT	ID	22	Surrogate key
2	*YEAR	VARCHAR(5)	NOT NULL	Fiscal year	2015	
3	*VOTE_CODE	VARCHAR(20)	NOT NULL	Vote code	'190'	
4	VOTE_NAME	VARCHAR(100)		Vote name	'Ministry of Health'	
5	CONCLUDE_FLAG	VARCHAR(5)		Concluded flag	'Y'	'Y'=Concluded
6	MDAS	VARCHAR(400)		MDAs	'Ministry of Health'	
7	OTHER_ENTS	VARCHAR(400)		Other Entities	'Gender & Elderly, ...'	
8	OVERALL_COMMENT	TEXT		Overall comment	'The conclusion is ...'	
9	START_DTIME_1	VARCHAR(20)		Start date & time (1)	'2016-11-23 10:30'	
10	END_DTIME_1	VARCHAR(20)		End date & time (1)	'2016-11-23 12:00'	
11	VENUE_1	VARCHAR(100)		Venue (1)	'EP&D Meeting room'	
12	ATTEND_PSIP_1	VARCHAR(400)		Attendees PSIP (1)	'Edward, Daudi'	
13	ATTEND_MDA_1	VARCHAR(400)		Attendees MDA (1)	'Mr. Steave, Ms. Olive'	
14	START_DTIME_2	VARCHAR(20)		Start date & time (2)	'2016-11-23 10:30'	
15	END_DTIME_2	VARCHAR(20)		End date & time (2)	'2016-11-23 12:00'	
16	VENUE_2	VARCHAR(100)		Venue (2)	'EP&D Meeting room'	
17	ATTEND_PSIP_2	VARCHAR(400)		Attendees PSIP (2)	'Edward, Daudi'	
18	ATTEND_MDA_2	VARCHAR(400)		Attendees MDA (2)	'Mr. Steave, Ms. Olive'	
19	START_DTIME_3	VARCHAR(20)		Start date & time (3)	'2016-11-23 10:30'	
20	END_DTIME_3	VARCHAR(20)		End date & time (3)	'2016-11-23 12:00'	
21	VENUE_3	VARCHAR(100)		Venue (3)	'EP&D Meeting room'	
22	ATTEND_PSIP_3	VARCHAR(400)		Attendees PSIP (3)	'Edward, Daudi'	
23	ATTEND_MDA_3	VARCHAR(400)		Attendees MDA (3)	'Mr. Steave, Ms. Olive'	
24	START_DTIME_4	VARCHAR(20)		Start date & time (4)	'2016-11-23 10:30'	
25	END_DTIME_4	VARCHAR(20)		End date & time (4)	'2016-11-23 12:00'	
26	VENUE_4	VARCHAR(100)		Venue (4)	'EP&D Meeting room'	
27	ATTEND_PSIP_4	VARCHAR(400)		Attendees PSIP (4)	'Edward, Daudi'	
28	ATTEND_MDA_4	VARCHAR(400)		Attendees MDA (4)	'Mr. Steave, Ms. Olive'	
29	TS	TIMESTAMP				
30	LOG_ID	INT		Log ID	10223	

MM PROJECT\_RECORD

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO INCREMENT	ID	22	Surrogate key
2	*YEAR	VARCHAR(5)	NOT NULL	Fiscal year	2015	
3	*VOTE_CODE	VARCHAR(20)	NOT NULL	Vote code	'190'	
4	*PROJECT_CODE	VARCHAR(20)	NOT NULL	Project Code	'1234'	
5	DECISION_FLAG	VARCHAR(5)		Decision flag	'Y'	'Y'=Decision has been made
6	MEMO	TEXT		Memo	'This project is ...'	
7	TS	TIMESTAMP				
8	LOG_ID	INT		Log ID	10223	

SITE\_VALIDATION\_LOG

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO INCREMENT	ID	22	Surrogate key
2	YEAR	VARCHAR(5)	NOT NULL	Fiscal year	2015	INDEX (YEAR,PROJECT_CODE)
3	PROJECT_CODE	VARCHAR(20)	NOT NULL	Project Code	'1234'	INDEX (YEAR,PROJECT_CODE)
4	DTIME	VARCHAR(20)	NOT NULL	Date and time	'2016-11-12 14:30:20'	
5	FILESET_ID	INT		Fileset ID	236	Pointer to photo file set
6	SITE	VARCHAR(400)		Site	'Lillongwe city hall'	
7	TEAM_MEMBERS	VARCHAR(1000)		Team members	'Daudi, Shalom, ...'	
8	MET_PERSONS	VARCHAR(1000)		Met persons	'Mr. Banda, Ms. ...'	
9	PROGRESS	TEXT		Progress	'Delayed'	
10	CHALLENGE	TEXT		Challenge	'No fund'	
11	RECOMMENDATION	TEXT		Recommendation	'Allocate fund'	
12	TS	TIMESTAMP				
13	LOG_ID	INT		Log ID	10223	

This table is added at Ver.3.02.05

PROJECT\_MEMO

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO INCREMENT	ID	22	Surrogate key
2	*PROJECT_CODE	VARCHAR(20)	NOT NULL	Project Code	'1234'	
3	*YEAR	VARCHAR(5)	NOT NULL	Fiscal year	2015	
3	AS_OF	VARCHAR(30)		As of	'2017-05-01'	
4	PROGRESS	TEXT		Progress	'Build 10 houses ...'	
4	CHALLENGE	TEXT		Challenge	'The fund is small to ...'	
5	RECOMMENDATION	TEXT		Recommendation	'It is better to ...'	
6	MEMO1	TEXT		Memo 1		Reserved for future use
7	MEMO2	TEXT		Memo 2		Reserved for future use
8	MEMO3	TEXT		Memo 3		Reserved for future use
9	MEMO4	TEXT		Memo 4		Reserved for future use
10	TS	TIMESTAMP				
11	LOG_ID	INT		Log ID	10223	

FILE SET

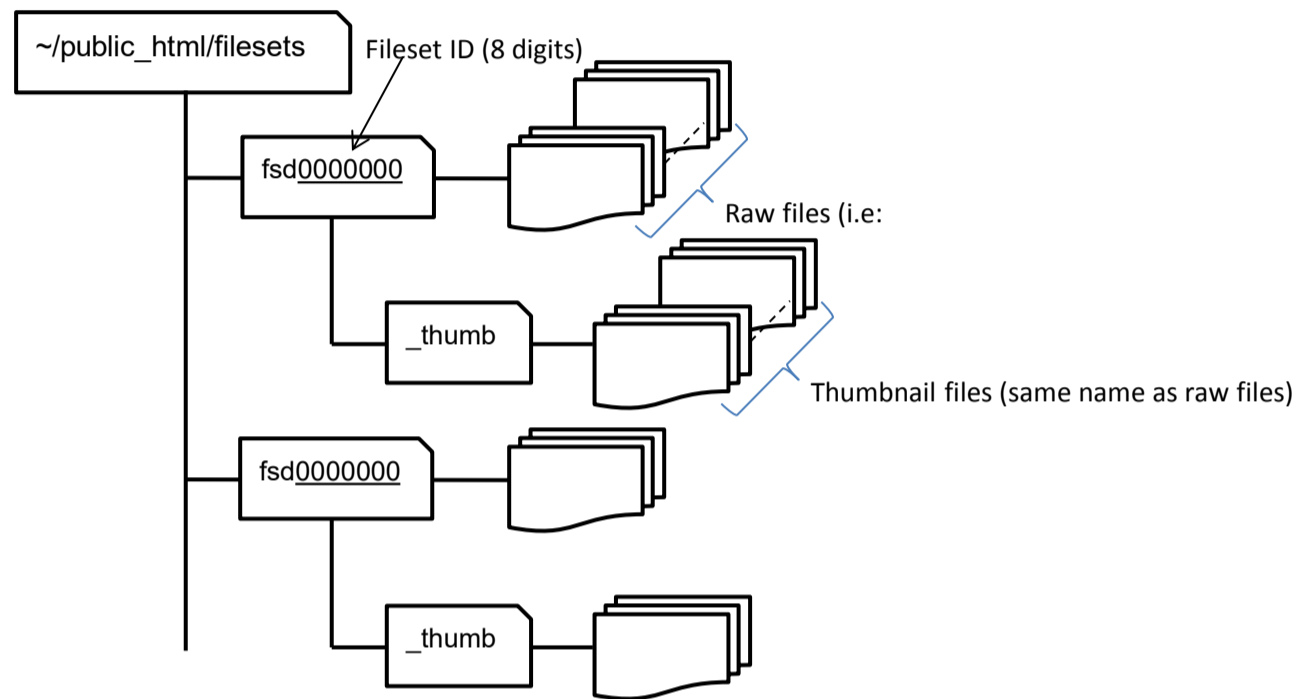
No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY	ID	22	Surrogate key
2	FS_NAME	VARCHAR(100)		Fileset name	'Site A visit pics'	
3	PARENT_FILESET_ID	INT		Parent Fileset ID	236	Pointer to photo parent file set
4	TS	TIMESTAMP				
5	LOG_ID	INT		Log ID	10223	

}}

FILE

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY	ID	22	Surrogate key
2	*FILESET_ID	INT	NOT NULL	Fileset ID	236	The fileset ID that this file belongs to
3	*ODR	INT	NOT NULL	Order	1	
4	FNAME	VARCHAR(400)		File name	'DCS_10201.jpg'	
5	MIME_TYPE	VARCHAR(100)		MIME type	'image/jpeg'	
6	MEMO	VARCHAR(1000)		Fileset name	'Site A visit pics'	
7	TS	TIMESTAMP				
8	LOG_ID	INT		Log ID	10223	

}}





{} JOB

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY	ID	10	Surrogate key
2	JOB_NAME	VARCHAR(200)	NOT NULL	Job Title	'TEMPGEN'	
3	JOB_DESC	VARCHAR(2000)		Description	'Template generation'	
4	SCHEDULE	VARCHAR(200)		Schedule time	'2017-06-20 01:30:00'	Maybe the format will be extended to accommodate periodical schedule Empty=Immediate
5	OS_USER	VARCHAR(20)		OS user	'psip'	The OS user when this job is
6	MAX_DURATION	INT		Max duration	3600	Specify the maximum allowed duration in seconds
7	STEPS	INT		Steps (Total)	231	Total steps
8	PROGRESS	INT		Progress	39	Completed steps
9	PAUSE	VARCHAR(5)		Pause	'1'	'1'=Pause, Other=Not pause
10	STATUS	VARCHAR(5)		Status	'D'	NULL=Not done, 'I'=In Progress, 'D'=Done, 'P'=Paused
11	RESULT	VARCHAR(5)		Result	'F'	'F'=Fail, 'S'=Success
12	START_DTIME	VARCHAR(20)		Actual start day-time	'2017-06-20 01:30:03'	
13	FINISH_DTIME	VARCHAR(20)		Actual finish day-time	'2017-06-20 02:08:22'	
14	TS	TIMESTAMP				
15	LOG_ID	INT		Log ID	10223	

}}

{} JOB STEP

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY	ID	10	Surrogate key
2	*JOB_ID	INT	NOT NULL	Job ID	236	References JOB(ID)
3	*ODR	INT		Order	1	Execution order within the JOB_ID
4	LEVEL	INT		Level	1	1=Stop job on failure, 2=Continue job on failure
5	CMD	TEXT		Command	'mkdir /home/psip/...'	Shell command to be executed
6	STATUS	VARCHAR(5)		Status	'D'	NULL=Not done, 'I'=In Progress, 'D'=Done
7	EXIT_CODE	VARCHAR(5)		Exit code	'1'	Command's exit code
8	MESSAGE	TEXT		Message	'Error. Invalid command'	Command's output message
9	START_DTIME	VARCHAR(20)		Actual start day-time	'2017-06-20 01:30:03'	
10	FINISH_DTIME	VARCHAR(20)		Actual finish day-time	'2017-06-20 02:08:22'	
11	TS	TIMESTAMP				
12	LOG_ID	INT		Log ID	10223	

}}

{{ MST\_VERSION

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	*MST_VER_NUM	INT	PRIMARY KEY AUTO_INCREMENT	Master version number (Fiscal	2017	2016, 2017, ...
2	REMARK	VARCHAR(100)		Remark		
3	TS	TIMESTAMP				
4	LOG_ID	INT		Log ID	10223	

0.95

}}

{{ MST\_CURRENCY

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*CURRENCY_CODE	VARCHAR(10)	NOT NULL	Currency code = Abbreviatid	'JPY'	
4	NAME	VARCHAR(100)	NOT NULL	Currency name	'Japanese Yen'	
5	REMARK	VARCHAR(100)		Remark		
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

}}

{{ MST\_EXCHANGE\_RATE

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*CURRENCY_CODE	VARCHAR(10)	NOT NULL	Currency code	'USD'	
2	AS OF	VARCHAR(10)	NOT NULL	As of	'2015-02-01'	
4	RATE	DECIMAL(20,6)	NOT NULL	Conversion rate to MWK	402.123	
5	REMARK	VARCHAR(100)		Remark		
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

0.82

}}

{{ MST\_MDA

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	579	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*MDA_CODE	VARCHAR(10)	NOT NULL	MDA code	'320'	
4	NAME	VARCHAR(200)	NOT NULL	MDA name	'Ministry of Health'	
5	MDA_TYPE	VARCHAR(10)	NOT NULL	MDA type	'M'	'M'=Ministry, 'D'=Department,
6	ABBREV	VARCHAR(10)		Abbreviation	'MoH'	
7	REMARK	VARCHAR(100)		Remark		
8	TS	TIMESTAMP				
9	LOG_ID	INT		Log ID	10223	

}}

{{ MST\_VOTE

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	579	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*VOTE_CODE	VARCHAR(10)	NOT NULL	Vote code	'320'	
4	MDA_CODE	VARCHAR(10)		MDA code	'300'	
5	NAME	VARCHAR(100)	NOT NULL	Vote name	'Ministry of Health'	
6	ABBREV	VARCHAR(10)		Abbreviation	'MoH'	
7	REMARK	VARCHAR(100)		Remark		
8	TS	TIMESTAMP				
9	LOG_ID	INT		Log ID	10223	

}}

{{ MST\_DONOR

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	579	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*DONOR_CODE	VARCHAR(10)	NOT NULL	Donor code	'a220'	
4	NAME	VARCHAR(200)	NOT NULL	Donor name	'Japan International ...'	
5	ABBREV	VARCHAR(20)		Abbreviation	'JICA'	
6	REMARK	VARCHAR(100)		Remark		
7	TS	TIMESTAMP				
8	LOG_ID	INT		Log ID	10223	

0.94

}}

{{ MST\_DISTRICT

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	579	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*DISTRICT_CODE	VARCHAR(10)	NOT NULL	District code	101	
4	REGION	VARCHAR(10)	NOT NULL	Region	'N'	'N'=North, 'C'=Central, 'S'=Southern, 'H'=Ministry / Department Headquarters, 'O'=Other
5	NAME	VARCHAR(50)	NOT NULL	Name	'Mzuzu'	
6	REMARK	VARCHAR(100)		Remark		
7	TS	TIMESTAMP				
8	LOG_ID	INT		Log ID	10223	

}}

{{ MST\_MGDS\_THEME

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	579	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*MGDS_THEME_CODE	VARCHAR(10)	NOT NULL	MGDS Theme code	100	
4	TITLE	VARCHAR(200)	NOT NULL	Theme title		
5	REMARK	VARCHAR(100)		Remark		
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

}}

{{ MST\_MGDS\_PRIORITY

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	579	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*MGDS_PRIORITY_CODE	VARCHAR(10)	NOT NULL	MGDS Priority code	120	
4	TITLE	VARCHAR(200)	NOT NULL	Priority title		
5	REMARK	VARCHAR(100)		Remark		
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

}}

{{ MST\_SECTOR

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	579	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*SECTOR_CODE	VARCHAR(10)	NOT NULL	Sector code	34	
4	NAME	VARCHAR(200)	NOT NULL	Sector name		
5	REMARK	VARCHAR(100)		Remark		
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

}}  
 {{ MST\_APP\_CATEGORY

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	579	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*APP_CATEGORY_ID	VARCHAR(10)	NOT NULL	Appraisal category ID	'N1', 'O1'	
4	TITLE	VARCHAR(10)	NOT NULL	Category title		
5	ODR	INT	NOT NULL	Order(1,2,3 ...)	1	
6	DESCRIPTION	VARCHAR(1000)		Description		
7	MIN_SCORE	VARCHAR(50)		Minimum score	'YES', 2,1	3.01.00
8	MAX_SCORE	VARCHAR(50)		Maximum score	'YES', 5,6	3.01.00
7	TYPE	VARCHAR(2)	NOT NULL	Type	'O'	'O'=On-Going, 'N'=New
8	CATEGORY_TYPE	VARCHAR(2)		Category Type	'T'	'S'=Score, 'Y'=Yes/No, 'N'=Narrative, 'T' = Total Maximum Score Category, 'R' = Recommendations
9	APP_TYPE	VARCHAR(2)		Appraisal Type	'F'	'I'=Initial appraisal, 'F'=Final appraisal
10	STATUS	VARCHAR(10)		Status		'D'=Disable
11	TS	TIMESTAMP				
12	LOG_ID	INT		Log ID	10223	

}}  
 {{ MST\_APP\_ITEM

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	3041	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*APP_CATEGORY_ID	VARCHAR(10)	NOT NULL	Appraisal category ID	'270'	
4	*ODR	INT	NOT NULL	Order		
5	TITLE	VARCHAR(100)	NOT NULL	Title		
6	DESCRIPTION	VARCHAR(1000)		Description		
7	APP_CRITERION	VARCHAR(1000)			Logical flow	3.01.00
8	NOTES_CRITERION	VARCHAR(1000)			2=Very likely,	3.01.00
9	NOTES_BEFORE	VARCHAR(1000)			How likely is it ...	3.01.00
10	NOTES_AFTER	VARCHAR(1000)			Please state your ...	3.01.00
11	SCORING_FRAME	VARCHAR(50)			2	3.01.00
12	REFERENCE	VARCHAR(1000)			Template	3.01.00
13	EXPLANATION	VARCHAR(1000)			Here we would like to	3.01.00
14	TYPE	VARCHAR(2)	NOT NULL	Type	'S'	'S'=Score, 'Y'=Yes/No, 'N'=Narrative, 'SI'=Score from Initial, 'CI'=Critical
15	STATUS	VARCHAR(10)		Status		'D'=Disable
16	TS	TIMESTAMP				
17	LOG_ID	INT		Log ID	10223	

}}  
 {{ MST\_LINE\_ITEM

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	3041	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*LINE_ITEM_CODE	VARCHAR(4)	NOT NULL	Line Item code	22	Part of chart of account
4	ITEM_TYPE	VARCHAR(10)	NOT NULL	Budget item type	'U'	'A'=Capital 'U'=Current
5	NAME	VARCHAR(100)	NOT NULL	Budget item name	'Intrests on Local	From Chart of account
6	REMARK	VARCHAR(100)		Remark		
7	TS	TIMESTAMP				
8	LOG_ID	INT		Log ID	10223	

}}  
 {{ MST\_SUB\_ITEM

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	3041	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*SUB_ITEM_CODE	VARCHAR(4)	NOT NULL	Sub item code	25	Part of chart of account
4	LINE_ITEM_CODE	VARCHAR(4)	NOT NULL	Line Item code	22	
5	NAME	VARCHAR(100)	NOT NULL	Sub item name	'Intrests on sub local ...'	User may define
6	REMARK	VARCHAR(100)		Remark		
7	TS	TIMESTAMP				
8	LOG_ID	INT		Log ID	10223	

}}  
 {{ MST\_PBB\_PROGRAM

Added in 0.95

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	3041	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*VOTE_CODE	VARCHAR(10)		Vote code	320	
4	*PBB_PROGRAM_CODE	VARCHAR(4)	NOT NULL	PBB Program Code	22	
5	NAME	VARCHAR(100)	NOT NULL	PBB Program name		
6	REMARK	VARCHAR(100)		Remark		
7	TS	TIMESTAMP				
8	LOG_ID	INT		Log ID	10223	

}}  
 {{ MST\_PBB\_SUB\_PROGRAM

Added in 0.95

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	3041	
2	*MST_VER_NUM	INT	NOT NULL	Master history number	2017	
3	*VOTE_CODE	VARCHAR(10)		Vote code	320	
4	*PBB_PROGRAM_CODE	VARCHAR(4)	NOT NULL	PBB Program Code	22	
5	*PBB_SUB_PROGRAM_CODE	VARCHAR(4)	NOT NULL	PBB Sub Program Code	25	
6	NAME	VARCHAR(100)	NOT NULL	PBB Sub Program Name		
7	REMARK	VARCHAR(100)		Remark		
8	TS	TIMESTAMP				
9	LOG_ID	INT		Log ID	10223	

}}

This table is not used as of Aug 2017

{{ AD\_HOC

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	Ad-hoc ID	22	
2	PROJECT_CODE	VARCHAR(20)		Project code	'14-320-001'	
3	REPORT_ID	VARCHAR(20)	NOT NULL	Rport ID	'1512001'	YYMMSSS
4	PROJECT_ID	INT	NOT NULL	Project ID	23	To identify Outcome, Output, Activity, Indicators and Achievement info
5	EVENT DATE	VARCHAR(10)	NOT NULL	Event date	'2015-06-27'	
6	REPORT DATE	VARCHAR(10)	NOT NULL	Report date	'2015-06-27'	
7	TITLE	VARCHAR(200)	NOT NULL	Title		
8	TYPE	VARCHAR(5)	NOT NULL	Report type	'SITE'	'SITE'=Site visit report
9	SERIOUSNESS	VARCHAR(5)	NOT NULL	Seriousness	'G'	'G'=Green, 'Y'=Yellow, 'R'=Red
10	AUTHOR NAME	VARCHAR(100)	NOT NULL	Author name		
10	AUTHOR EMAIL	VARCHAR(100)	NOT NULL	Author email	'xxx@example.com'	
11	AUTHOR TEL	VARCHAR(100)	NOT NULL	Author telephone	'099 989 1234'	
12	MAIL TO	VARCHAR(2000)	NOT NULL	Mail to	'12,13'	Mail group ID list or Mail address list
13	MESSAGE	TEXT	NOT NULL	Message body		
14	ATTACHMENT1	VARCHAR(400)		Attachment 1	'20151201/document1.doc'	
15	ATTACHMENT2	VARCHAR(400)		Attachment 2		
16	ATTACHMENT3	VARCHAR(400)		Attachment 3		
17	ATTACHMENT4	VARCHAR(400)		Attachment 4		
18	ATTACHMENT5	VARCHAR(400)		Attachment 5		
19	ATTACHMENT6	VARCHAR(400)		Attachment 6		
20	ATTACHMENT7	VARCHAR(400)		Attachment 7		
21	ATTACHMENT8	VARCHAR(400)		Attachment 8		
22	STATUS	VARCHAR(5)		Status	'SE'	'SE'=Sent, 'UN'=Unsent, 'SA'=Saved
23	TS	TIMESTAMP				
24	LOG_ID	INT		Log ID	10223	

0.82  
0.82

}}

These tables are not used as of Aug 2017

```

{{ MAIL_GROUP

```

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY	Mail group ID	270	
2	*MG_NAME	VARCHAR(100)	NOT NULL	Mail group name	'Finance sector'	
3	DESCRIPTION	VARCHAR(200)		Description	'This group is ...'	
4	LEVEL	INT		Level	3	Level of this group
5	RELATED_VOTES	VARCHAR(2000)		Related votes	"210,300,320"	Lists the vote codes
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

```

}}

```

```

{{ MAIL_LIST

```

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY	Mail list ID	270	
2	*MAIL_GROUP_ID	INT		Mail group ID		
3	*EMAIL	VARCHAR(100)	NOT NULL	Email		
4	NAME	VARCHAR(200)	NOT NULL	Person's name		
5	DESCRIPTION	VARCHAR(200)		Description		Ministry, Designation, Cell, tec.
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

```

}}

```

}} USER

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	User ID	22	
2	*LOGIN ID	VARCHAR(100)	NOT NULL	Login ID		Size changed from 20 to 100 @3.05
3	FIRST NAME	VARCHAR(100)		First name		
4	LAST NAME	VARCHAR(100)		Last name		
5	ROLE	VARCHAR(20)		Role	'ROLE ADMIN'	See below
6	VOTE CODE	VARCHAR(10)		Belonging vote code		
7	PASS	VARCHAR(100)		Password		
8	PASS CHANGE	VARCHAR(10)		Password		
9	PASS CHANGE FLAG	VARCHAR(20)		Password		
10	STATUS	VARCHAR(5)		Status		'D'=Disable, 'X'=Expired, 'E'=Enable
11	GENDER	VARCHAR(1)		Gender	'F'	'F'=Female, 'M'=Male
12	ORGANIZATION	VARCHAR(100)		Organization		
13	POSITION	VARCHAR(100)		Position	'Economist'	
14	ADDRESS	VARCHAR(100)		Address		
15	POBOX	VARCHAR(100)		PO Box		
16	EMAIL1	VARCHAR(100)		Email1		
17	EMAIL2	VARCHAR(100)		Email2		
18	TEL1	VARCHAR(20)		Telephone number 1		
19	TEL2	VARCHAR(20)		Telephone number 2		
20	CELL1	VARCHAR(20)		Cell phone number 1		
21	CELL2	VARCHAR(20)		Cell phone number 2		
22	LAST LOGIN DATE	VARCHAR(20)		Last login date	'2015-11-19 10:58:09'	
23	LOGIN COUNT	INT		Login count		
24	TS	TIMESTAMP				

3.05

0.82

3.05

0.85e

}}

**ROLE**

- ROLE ADMIN
- ROLE PSIP
- ROLE\_USER
- ROLE\_GUEST

0.75

{{ CONST1

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	ID	22	
2	*SECTION	VARCHAR(50)		Section name		
3	*NAME	VARCHAR(50)		Constant name		
4	VALUE	VARCHAR(1000)		Value		
5	TS	TIMESTAMP				
6	LOG_ID	INT		Log ID	10223	

}}

Example 1

SECTION	NAME	VALUE
PROJECT_TYPE	01	Development/Infrastructure
PROJECT_TYPE	02	Development/Service
PROJECT_TYPE	03	Development/Hybrid
PROJECT_TYPE	04	Recurren

Example 2

SECTION	NAME	VALUE
SYSTEM	AUTO_SAVE_PERIOD	300
SYSTEM	AUTO_LOGOFF_TIME	600

0.75

{{ ANNOUNCEMENT

No.	Column Name	V1.5 Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID		INT	PRIMARY KEY AUTO_INCREMENT	ID	22	
2	ODR		INT		Order	1	If NULL, not displayed
3	VALUE		VARCHAR(50)		Text value		
4	REMARK		VARCHAR(1000)		Value		
5	TS		TIMESTAMP				
6	LOG_ID		INT		Log ID	10223	

}}

LOG

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	Log ID	22	
2	LOGIN_ID	VARCHAR(20)		Login ID		For reference
3	USER_ID	INT		User ID		
4	LOGIN_TIME	DATETIME		Login time		
5	LOGOUT_TIME	DATETIME		Logout time		
6	IP_ADDRESS	VARCHAR(20)		IP address	'10.104.1.22'	
7	RESULT	VARCHAR(10)		Result		'Success', 'Fail'
8	REMARK	VARCHAR(200)		Remark	'Attempt to login with wrong password'	
9	TS	TIMESTAMP				

}}

SUBMISSION

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY AUTO_INCREMENT	Ad-hoc ID	22	
2	PROJECT_CODE	VARCHAR(20)		Project code	'14-320-001'	
3	PROJECT_TITLE	VARCHAR(400)		Project Title	'Construction of XXX'	
4	VOTE_CODE	VARCHAR(10)		Vote code	320	
5	REP_MINISTRY_CODE	VARCHAR(10)		Representing ministry code	320	
2	TEMPLATE_YEAR	VARCHAR(10)		Template year	'2015'	2015 --> 2015/16
6	TEMPLATE_VERSION	VARCHAR(10)		Template version	2.0.33	
7	TEMPLATE_TYPE	VARCHAR(1)		Template type	'N' or 'O' or 'Q'	
8	FILE_PATH	VARCHAR(1000)		File path	'/var/samba/template ...'	
9	FILE_NAME	VARCHAR(1000)		File name	'1718_190_ONGOING.'	
10	FILE_SIZE	INT		File size	2901293	
11	FILE_TIMESTAMP	VARCHAR(20)		File timestamp	'2016-10-01 21:34:55'	
12	MODE	VARCHAR(5)		Mode	'A'	'A' for automatic
13	FLAG_SUBMITTED	INT	DEFAULT 0	Flag submitted	1	
14	FLAG_CHECKED	INT	DEFAULT 0	Flag checked	0	
15	FLAG_LOADED	INT	DEFAULT 0	Flag loaded	0	
16	NUM_ERRORS	INT	DEFAULT 0		2	
17	RESULT1	VARCHAR(5)		Result	'S'	'S' for success, 'E' for Error 'D' for Deleted
18	MESSAGE	VARCHAR(4000)		Message	'Loading error ...'	
19	TS	TIMESTAMP				
20	LOG_ID	INT		Log ID	10223	

}}

VOTE\_REWRITE

No.	Column Name	Data Type	Other Attributes	Origin of Column Name	Data Example	Remarks
1	ID	INT	PRIMARY KEY	ID	22	Surrogate key
2	PROJECT_CODE	VARCHAR(20)		Project Code	'1234'	
3	YEAR	INT	NOT NULL	Year	2016	Year to apply
4	FROM_VOTE_CODE	VARCHAR(10)		From Vote Code	'324'	Code from
5	TO_VOTE_CODE	VARCHAR(10)	NOT NULL	To Vote Code	'320'	Code to
6	TS	TIMESTAMP				
7	LOG_ID	INT		Log ID	10223	

}}

Usage of VOTE\_REWRITE

project\_code='1234', to\_vote\_code='222' --> Rewrite the vote code of project 1234 to 222  
 project\_code=\*\*, from\_vote\_code='221', to\_vote\_code='222' --> Rewrite the vote code of all projects in vote 221 to 222





## How to keep the historical data

### 1. Present contents of PROJECT table

PROJECT_ID	PROJECT_CODE	HIST_NUM	YEAR	VOTE_CODE	PROJECT_TITLE
1000	16-330-001	2	2015	320	Construction of Hospital
1001	16-330-001	1	2015	320	Construction of Hospital
1002	16-330-001	0	2015	320	Construction of Hospital

Previous 2  
Previous 1  
Current

### 2. Modify PROJECT\_TITLE and save

**(1) UPDATE PROJECT SET HIST\_NUM=HIST\_NUM+1 TS=TS WHERE PROJECT\_CODE='16-330-001' ORDER BY HIST**

(2) The row PROJECT\_ID=1002 is copied as HIST\_NUM=0 and the modified content is reflected

All subsequent tables are copied accordingly.

OUTLINE, COST, FINANCE, LOCATION, OPERATION, INDICATOR, PROGRESS and MONEY

PROJECT_ID	PROJECT_CODE	HIST_NUM	YEAR	VOTE_CODE	PROJECT_TITLE
1000	16-330-001	3	2015	320	Construction of Hospital
1001	16-330-001	2	2015	320	Construction of Hospital
1002	16-330-001	1	2015	320	Construction of Hospital
1003	16-330-001	0	2015	320	Construction of Hospital (1)

Previous 3  
Previous 2  
Previous 1  
Current

(3) Any other modifications are reflected to the row PROJECT\_ID=1003 as long as the user keeps logging in (=same session)

### 3. Load the project template as "Ongoing Project" for 2015/16 budget. The operation is done on Template Loader.

PROJECT_ID	PROJECT_CODE	HIST_NUM	YEAR	VOTE_CODE	PROJECT_TITLE
1000	16-330-001	3	2015	320	Construction of Hospital
1001	16-330-001	2	2015	320	Construction of Hospital
1002	16-330-001	1	2015	320	Construction of Hospital
1003	16-330-001	0	2015	320	Construction of Hospital (1)
1004	16-330-001	-1	2015	320	Construction of Hospital (1)

Previous 3  
Previous 2  
Previous 1  
Current  
Loaded

The loaded contents are confirmed and verified by a desk officer.

In case to be discarded: Delete the row where the PROJECT\_ID=1004

In case to be saved execute a query:

UPDATE PROJECT SET HIST\_NUM=HIST\_NUM+1 TS=TS WHERE PROJECT\_CODE='16-330-001' ORDER BY HIST

PROJECT_ID	PROJECT_CODE	HIST_NUM	YEAR	VOTE_CODE	PROJECT_TITLE
1000	16-330-001	4	2015	320	Construction of Hospital
1001	16-330-001	3	2015	320	Construction of Hospital
1002	16-330-001	2	2015	320	Construction of Hospital
1003	16-330-001	1	2015	320	Construction of Hospital (1)
1004	16-330-001	0	2015	320	Construction of Hospital (1)

Previous 4  
Previous 3  
Previous 2  
Previous 1  
Current

