EUROPEAN SOUTHERN OBSERVATORY

Organisation Européenne pour des Recherches Astronomiques dans l'Hémisphère Austral

Europäische Organisation für astronomische Forschung in der südlichen Hemisphäre

LA SILLA OBSERVATORY

PROCEDURE

Off-line system

Maintenance Manual

Doc.No. LSO-SMM-ESO-80010-0001

Issue 1

Date 30/11/2001

INTERNAL USE ONLY

Prepared JIB/PGL 30/11/01 ....
Name Date Signature

Approved F. Gutierrez ....
Name Date Signature

Released ....
Name Date Signature

Change Record

Issue/Rev.	Date	Section/Page affected	Reason/Initiation/Document/Remarks
1.0	30/11/01	All	First version.

1 INTRODUCTION

1.1 PURPOSE

The purpose of this maintenance manual is to provide a instructions and procedures to regenerate and maintain La Silla off-line system.

1.2 SCOPE

The aim of this document is to provide maintenance instructions and procedures for La Silla off-line system and should be considered a live document maintianed by the system administrators. The procedures descriebed herein shall typically be executed off-line unless otherwise stated. The res-posibles for the execution of this procedure are La Silla system administrators.

1.3 APPLICABLE DOCUMENTS

The following documents form a part of this document to the extent specified herein. In the event of conflict between the documents referenced herein and the contents of this document, the contents of this document shall be considered as a superseding requirement.

[1] VLT-MAN-ESO-17200-2238, Combined OS Installation Manual.

[2] LSO-PRO-ESO-80010-0003, PROCEDURE: HP-UX OS Installation.

[3] VLT-MAN-ESO-17200-0642, VLT Common Software: Installation Manual.

[4] LSO-PRO-ESO-80010-0005, PROCEDURE: VLT Common SW Installation for HP-UX.

[5] LSO-PRO-ESO-80010-0007, PROCEDURE: Utilities and Aditional SW Installation.

[6] LSO-SPE-ESO-80010-0001, Accounts and Group ID Convention.

[7] LSO-PLA-ESO-80010-0002, Off-line System Upgrade Plan.

[8] VLT-MAN-ESO-17200-0780, Configuration Management Module User Manual.

1.4 ABBREVIATIONS AND ACRONYMS

The following abbreviations and acronyms are used in this document:

#	Root prompt
>	User prompt
E2P2	ESO 2.2m Telescope
E3P6	ESO 3.6m Telescope
FS	File System
HD	Hard Disk
HP	Hewllet Packard
HP-UX	Hewllet Packard Unix
NTT	New Technology Telescope
LSO	La Silla Observatory
OS	Operative System
TBC	To be corrected

TBD	To be developed
VLT	Very Large Telescope
VLTSW	VLT Common Software
WS	Workstation

2 OVERVIEW

TBD:

- Description of the system.
- Deployment Diagram
- Document Organization

2.1 ITEM DEFINITIONS

2.1.1 Hardware

As specified in [7].

2.1.2 Software

As specified in [1], [2], [3], [4], [5] and [7].

2.1.3 Target stations

As specified in [7].

2.2 METHODS

2.2.1 Conditions

The procedures require exclusive access to the workstations involved meaning that the system is unavailable for any other use.

2.2.2 Sequence

As precondition it is assumed that all peripherical devices are connected, that the WSs is connected to the network, and at least HP-UX 11.0 OS and VLTSW is installed on the target WSs according to [1],[2],[3], and [4] in all cases.

2.3 PRECAUTIONS/SAFETY ASPECTS

N/A

3 KAYU: CMM SERVER INSTALLATION

3.1 TARGET DESCRIPTION

TBD

3.2 TARGET SET-UP

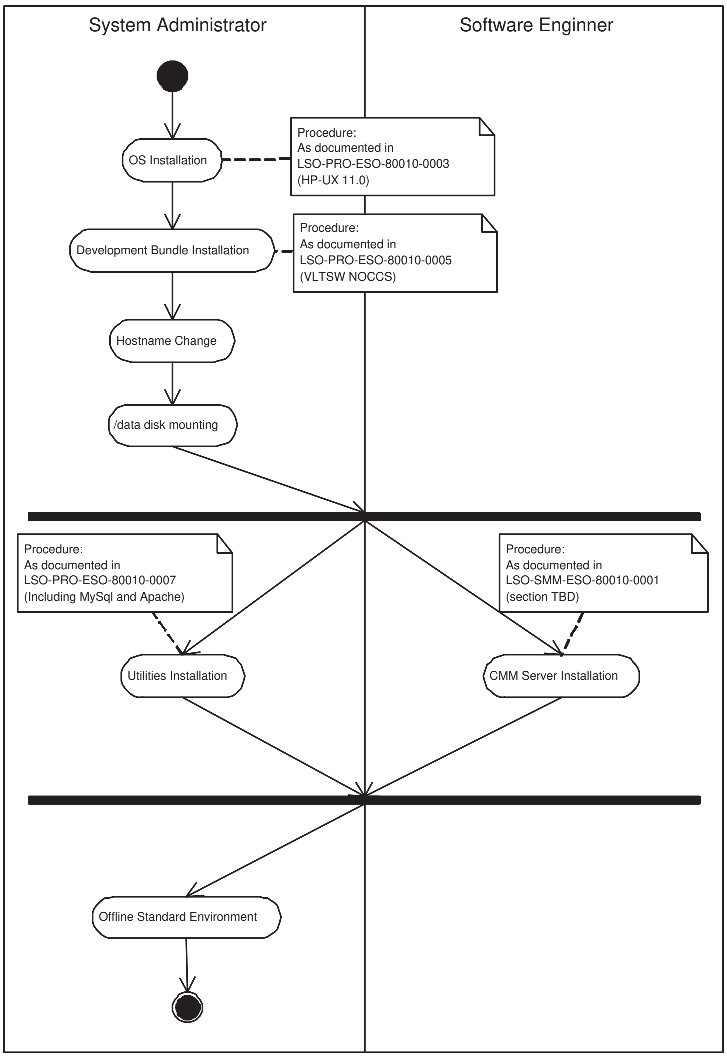
The steps must be performed by *root, vltmgr,* and *vltsccm*.

The target station has to have at least OS and development bundle already installed according to [1], [2], [3], and [4] and the hostname has to be set to kayu.

3.3 TARGET REGENERATION PROCEDURE

The full regeneration procedure can be summarized by the following activity diagram:

kayu regeneration activity diagram



ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks
1	Date, time			
2	**CMM Server Installation**			

2.1	As *root*, Create *vltsccm* account with parameters:
	
	`User Name: vltsccm`
	`UID: 495`
	`GID: 50`
	`home dir: /home/vltsccm`
	`shell: /usr/bin/bash`			

2.2	As *vltsccm*, PECSify the account to get a proper vlt environment. Configure access to Garching archive for the account by adding a proper `.cmmrc` file with contents: `vltsccm 4500b1434`			
2.3	As *vltsccm*, edit `.pecs/apps-all.env` and add INTROOT directory environment variable by adding the line: `export INTROOT=~/INTROOT`			I
2.4	As *vltsccm*, logout and login again to enable the changes.			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks

[MAR 2001] 2.5	As *vltsccm*, download and compile the server by issuing:
	
	`vltsccm> mkdir SOURCES; cd SOURCES;`
	`vltsccm> cmmCopy cmm 3.20; cd ..`
	`vltsccm> getTemplateForDirectory INT-ROOT INTROOT`
	`vltsccm> cd SOURCES/cmm/src`
	`vltsccm> vi cmmLockArchive`
	(Hack the file replacing the lines:
	`71,72`
	
	`< $EDITOR $CMM_ROOT/LOCK`
	`<`
	`by 71,77`
	
	`> if [ $# = "0" ]`
	`> then`
	`>       $EDITOR $CMM_ROOT/LOCK`
	`> else`
	`>       rm $CMM_ROOT/LOCK`
	`> echo $1 > $CMM_ROOT/LOCK`
	`> fi`
	A SPR should be sent to Garching for this)
	`vltsccm> make clean all man install`			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	**Action**	**Expected (if applicable)**	**Actual status/value**	**Remarks**

[OCT 2001] 2.5	As vltmgr, download and compile the server by issuing:
	
	`vltmgr> mkdir SOURCES; cd SOURCES`
	`vltmgr> cp <VLTSW SOURCE DIRECTORY>/`
	`Kit/cmm SOURCES/cmm.hack`
	`vltsccm> vi cmm.hack/src/cmmLockArchive`
	(Hack the file replacing the lines:
	`71,72`
	
	`< $EDITOR $CMM_ROOT/LOCK`
	`<`
	`by 71,77`
	
	`> if [ $# = "0" ]`
	`> then`
	`>       $EDITOR $CMM_ROOT/LOCK`
	`> else`
	`>       rm $CMM_ROOT/LOCK`
	`>         echo $1 > $CMM_ROOT/LOCK`
	`> fi`
	A SPR should be sent to Garching for this)
	`vltmgr> cd cmm.hack/src`
	`vltmgr> make clean all man install`			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks

2.6	As *vltsccm*, configure the server environment variables:
	
	`vltsccm> vi ~/.pecs/apps-all.env`
	(add the following lines:
	
	`export CMM_PORT=5555`
	`export CMM_ROOT=/data/vltsccm/REPOSIT`
	`export CMM_HOST=kayu`
	)
	
	Logout and login again to enable the changes.			

2.7	As *root*, create the repository base directory:
	
	`# mkdir /data/vltsccm/REPOSIT`
	`# chown vltsccm:vlt \`
	`/data/vltsccm/REPOSIT`			

2.8	As *vltscmm*, check that the environment variables are coorectly set:
	
	`vltsccm> env | grep CMM`
	`CMM_PORT=5555`
	`CMM_ROOT=/data/vltsccm/REPOSIT`
	`CMM_HOST=kayu`			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks

2.9	As *vltsccm*, initalizate the repository directory:
	
	`vltsccm> cd SOURCES/cmm/src`
	`vltsccm> /bin/sh cmmInit`
	`rm: directory /data/vltsccm/REPOSIT not removed.  Permission denied`
	`mkdir: cannot create /data/vltsccm/REPOSIT: File exists`
	(You can safetely ignored the errors shown above)			

2.10	As *vltsccm*, create an initial userlist, modlist, and grouplist:
	
	`vltsccm> echo "testmod r=LSO: w=LSO:" > $CMM_ROOT/modlist`
	`vltsccm> echo "testdoc r=LSO: w=LSO:DOC" >>  $CMM_ROOT/modlist`
	`vltsccm> cat ~/.cmmrc > $CMM_ROOT/userlist`
	`vltsccm> echo "vltsccm LSO" > $CMM_ROOT/grouplist`			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks

2.11	As *vltsccm*, start/stop the cmmServer:
	
	`vltscmm> cmmStartup`
	`vltscmm> psg cmm`
	` vltsccm  8343    1  0 18:53:53 ?`
	`0:00 cmmServer`
	(To check that the server is running)
	
	`vltscmm> cmmShutdown`			

3	CMM Server Verification			

3.1	At kayu, startup the cmmServer as *vltsccm*:
	
	`vltscmm> cmmStartup`
	`vltscmm> psg cmm`
	` vltsccm  8343    1  0 18:53:53 ?`
	`0:00 cmmServer`
	(To check that the server is running)			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks

3.2	As *vltsccm*, create the test modules:
	
	`vltsccm> cd ~/tmp`
	`vltsccm> getTemplateForDirectory \`
	`MODROOT testmod`
	`vltsccm> cmmCreate testmod`
	.
	.
	.
	`vltsccm> getTemplate`
	(select FrameMakerDocument -> Document)
	`vltsccm> mv text testdoc`
	`vltsccm> chmod u+rw testdoc/*`
	`vltsccm> cmmCreate testdoc`			

3.3	As *vltsccm*, check that the modules have been correctly logged into the archive:
	
	`vltsccm> cmmLast`
	`testdoc last version: 1.0`
	`testmod last version: 1.0`			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks

3.4	As *vltsccm*, check that the modules can be cmmCopied:
	
	`vltsccm> cmmCopy testmod`
	`vltsccm> cmmCopy testdoc`
	(check the modules contents)			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks

3.5	As *vltsccm*, check that the modules can be cmmModified:
	
	`vltscmm> cmmModify testmod; cmmModify testdoc`
	`vltscmm> cmmHistory testmod`
	`version: 1.0 date: Tue Oct 2 20:57:24 MESZ 2001 user: vltsccm reason: creation`
	`testmod currently modified by vltsccm`
	`vltsccm> cmmHistory testdoc`
	`version: 1.0 date: Tue Oct 2 21:01:38 MESZ 2001 user: vltsccm reason: creation`
	`testdoc currently modified by vltsccm`
	`vltsccm> touch testmod/ChangeLog`
	`vltsccm> touch testdoc/ChangeLog`
	`vltsccm> cmmArchive testmod "testing..."; cmmArchive testdoc “testing”`
	`.`
	`.`
	`.`
	`cmmArchive : The End.`			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks

3.6	As *vltsccm*, test some cmm comands,
	
	`vltsccm> cmmHistory testmod`
	`version: 1.0 date: Tue Oct 2 20:57:24`
	`MESZ 2001 user: vltsccm reason: crea-`
	`tion`
	`version: 1.1 date: Tue Oct 2 21:08:26`
	`MESZ 2001 user: vltsccm reason: test-`
	`ing...`
	`vltsccm> cmmHistory testdoc`
	`version: 1.0 date: Tue Oct 2 21:01:38`
	`MESZ 2001 user: vltsccm reason: crea-`
	`tion`
	`version: 1.1 date: Tue Oct 2 21:09:09`
	`MESZ 2001 user: vltsccm reason: testing`
	`..`
	
	`vltsccm> cmmLast`
	`testdoc last version: 1.1`
	`testmod last version: 1.1`			

3.7	As *vltsccm*, shutdown CMM Server `vltscmm> cmmShutdown` (vi will be started to add a shutdown message)			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks

3.8	As *vltsccm*, add a user to test the client:
	
	`vltsccm> echo "user passwd" >> $CMM_ROOT/userlist`
	`vltsccm> echo "user LSO" >> $CMM_ROOT/grouplist`			

3.9	At a client WS:
	
	Login to a vlt account on another station and add user passwd at the end of the `.cmmrc` file of that account:
	
	`export CMM_PORT=5555`
	`export CMM_HOST=kayu`
	
	`user> echo "user passwd" >> .cmmrc`
	
	Edit `.pecs/apps-all.env` to change the CMM default settings:
	
	Logout and login again to enable the changes.			

3.10	As vltsccm, start the cmmServer at kayu: `vltsccm> cmmStartup`			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks

3.11	As *user*, issue some basic cmm commads:
	
	`user> cmmLast`
	`testdoc last version: 1.1`
	`testmod last version: 1.1`
	`user> cmmHistory testdoc`
	`version: 1.0 date: Tue Oct 2 21:01:38 MESZ 2001 user: vltsccm reason: creation`
	`version: 1.1 date: Tue Oct 2 21:09:09 MESZ 2001 user: vltsccm reason: testing ..`
	`user> cmmHistory testmod`
	`version: 1.0 date: Tue Oct 2 20:57:24 MESZ 2001 user: vltsccm reason: creation`
	`version: 1.1 date: Tue Oct 2 21:08:26 MESZ 2001 user: vltsccm reason: testing...`			

ITEM ID.			Title:	**Off-line System Regeneration**		

Step No.	Action	Expected (if applicable)	Actual status/value	Remarks

3.12	As user, modify and archive a module:
	
	`user> cmmModify -l user testmod`
	(Introduce some modifications)
	`user> cmmArchive -l user testmod "test-ing..."`
	`user> cmmHistory testmod`
	`version: 1.0 date: Tue Oct 2 20:57:24 MESZ 2001 user: vltsccm reason: crea-tion`
	`version: 1.1 date: Tue Oct 2 21:08:26 MESZ 2001 user: vltsccm reason: test-ing...`
	`version: 1.2 date: Tue Oct 2 21:26:13 MESZ 2001 user: user reason: testing...`
	`user> rm -rf testmod`
	`user> cmmCopy testmod`
	`user> cmmModify -l user testdoc`
	`user> touch testdoc/ChangeLog`
	`user> cmmArchive -l user testdoc`
	`user> rm -rf testdoc`
	`user> cmmCopy testdoc`			

4	Date, time			

3.4 CMM CLIENT INSTALLATION

The cmm client is part of the standard development bundle installation described in [3] and [4]. The only additional setting that has to be configure to access LSO CMM Server is to add the following environment variables to the corresponding PECS locality file (or ~/.pecs/apps-all.env file for a single user setting):

```
export CMM_HOST=kayu.ls.eso.org
export CMM_PORT=5555
```

At the time of this writing the only CMM client defaulted to LSO CMM server is meli.

3.5 USER GUIDE

Please refer to official user manual [8] and instructions therein.

3.6 ADMINISTRATOR GUIDE

The cmm administration commands are described in extension in [8]. In this subsection a small description of the administrative activities will be given.

3.6.1 Creating a new user

To create a new user to get access to the archive the following steps has to be performed:

- Define a pair <user> <passwd> to be added to the user list.
- As *vltsccm*, append the new user to the user list by issuing:
  `vltsccm> echo "<user> <passwd> " >>  $CMM_ROOT/userlist`
- Update the userlist table from CMM database (TBD)
- As *vltsccm*, append the new user with a default group to group list
  `vltsccm> echo "<user> <user group>" >> $CMM_ROOT/grouplist`
- Update the group list table from CMM database (TBD)
- As *vltsccm*, restart the cmmServer by isuing:
  `vltsccm> kill -HUP 'cat $CMM_ROOT/cmmServer.pid'`

3.6.2 Adding user to a group

To add a existing user to a new group the following steps has to be performed:

- As *vltsccm*, edit the grouplist file and add the additional group to the user after the last group separated by spaces.
  `vltsccm> vi $CMM_ROOT/grouplist`
  (Modify the line corresponding to user as shown below:
  `<user> <user group> <group2> <group3>`
)
- Update the group list table from CMM database (TBD)

- As *vltsccm*, restart the cmmServer by isuing:

  ```
  vltsccm> kill -HUP 'cat $CMM_ROOT/cmmServer.pid'
  ```

3.6.3 Creating a new module

To create a new module the following steps has to be performed:

- As *vltsccm*, append the new module to the module list:

  ```
  vltsccm> echo "<module> r=<group1>:<group2>: w=<group1>:<group2>: DOC"
  >>  $CMM_ROOT/modlist
  ```

  where

  `<module>` = module name. It has to be the corresponding DOC ID assigned by remedy.

  `r=` = group(s) that will have read access to <module>

  `w=` = group(s) that will have write to <module>

  `<group1>:<group2>:` = list of groups for a given access separated by `:`. The list must end with `:`.
- Update the module list table from CMM database (TBD)
- As *vltsccm*, create the first version of the module:

  ```
  vltsccm> getTemplate
  ```

  (select FrameMakerDocument -> Document)

  ```
  vltsccm> mv text <module>
  vltsccm> chmod u+rw <module>/*
  vltsccm> cmmCreate <module>
  ```
- As *vltsccm*, restart the cmmServer by isuing:

  ```
  vltsccm> kill -HUP 'cat $CMM_ROOT/cmmServer.pid'
  ```

Not available. TBD.