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# hp OpenView Service Quality Manager



## Release Notes

**Edition: 1.3 revision B**

**for the HP-UX and Microsoft Windows Operating Systems**

**October 2006**

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# Preface

This document is the release notes of the HP OpenView Service Quality Manager (SQM) V1.3 MR. It covers all the SQM product components including the Service Adapters, Gateways, and Value Packs. It also covers the migration from SQM V1.2 SP1 to this SQM V1.3. This document should be read prior to install the product.

The prerequisites for installing and the installation procedures are described into the installation guide manuals.

## Intended Audience

This document addresses administrators, service designers and service operators who will be exposed to OpenView SQM.

## Associated Documents

The OpenView SQM documentation set is detailed in the Chapter 5.

## Software Versions

The term UNIX is used as a generic reference to the operating system, unless otherwise specified.

The software versions referred to in this document are as follows:

OpenView SQM	UNIX	Windows
1.3	HP-UX 11.11	XP

## Typographical Conventions

*Courier* font for:

- Source code and examples of file contents
- Commands that you enter on the screen
- Path names
- Keyboard key names

*Italic* text for:

- Filenames, programs, and parameters
- The names of other documents referenced in this manual

**Bold** text for:

- New terms
- Important words

# Chapter 1

## Introduction

### 1.1 Product Goals

HP OpenView SQM is the OpenView solution dedicated to service quality management. The *OpenView SQM Overview* document contains an introduction to service quality management and a description of the SQM features.

### 1.2 What's new in SQM V1.3?

#### Core product

- A new Late Calculation feature integrated to the DataMart gives the ability to re-compute aggregated data from a set of late performance measures in a given recalculation window. Late measures can be consecutive to:
  - errors in the collection chain
  - SA or 3rd party product temporarily not operational
  - data available thanks to SA re-synchronization with a given delay
  - collected data are erroneous...

A complete description of the Late Calculation is given in the *OpenView SQM DataMart User's Guide*.

- An improved Reporting leveraging the new DataMart DB structure resulting from the implementation of the Late Calculation and providing:
  - the DataMart precision for raw performance measures (instead of a 5mn time grain) and avoids hole filling with artificial measures
  - the cust/no-cust parameters split. The new BO strategies are querying the new structure to expose cust and nocust measures in dedicated BO classes
  - significant performances improvements when data have an important fan-out

Changes in the Reporting are documented in the *OpenView SQM Reporting Customization and User's Guide*.

- The support of new Time Aggregation expressions allowing to calculate a value from preceding values of a parameter within a time period.

Aggregation expressions already exist in OpenView SQM, and are used for:

- parameters coming from one or more instances,

- electing a value from a list of values a parameter received during a calculation interval (buffering operations)

Such expressions will now also be used to calculate a value from values received within a time window within a SCI. Two time aggregation expressions are provided:

- the sliding time aggregation expression: allow to apply an operation to values within a sliding time window (e.g. last X number of minutes)
- the fixed time aggregation expression: allow to apply an operation to values within a fixed time window (e.g. values since beginning of the day)

Time Aggregation expressions are documented in the *OpenView SQM Service Designer User's Guide*.

### Service Adapters

- The OVO SA now supports OVO 7.1 and 8.2
- Windows is no more a supported environment for Service Adapters. This especially applies to OVIS SA and OVSD SA which are now available on HP-UX only.

Building Service Adapters for Windows using the SQL SA Toolkit is still possible but this should be reserved to testing. These Service Adapters will not be supported in production environments.

### Value Pack

- A new VPN/MPLS Value Pack designed to measure and monitor the Quality of Service and associated customer SLAs for five pre-defined VPN Classes of Service:
  - Voice-CoS (voice)
  - Video-CoS (interactive video, visio conference)
  - Critical Data-CoS (call signaling, Systems Network Architecture [SNA], Oracle, PeopleSoft, SAP, Telnet, and others)
  - Bulk Data-CoS (streaming video, Internet Web, IBM Lotus Workplace, Novell Groupwise, and others)
  - Best Effort-CoS (Simple Mail Transfer Protocol [SMTP], FTP, Internet Web, and others)

This new Value Pack, as well as the MDS, IPMS and MSE Value Packs updated to support SQM V1.3 are bundled on the SQM V1.3 media.



## 1.3 Corrected Problems

### 1.3.1 User Interfaces

PR #	Problem Description
56042	SQM UIs connections are now possible when the UI Server is accessed through a Network Address Translation (NAT) service
56097	SLA Admin: Problem to create the action executor for SLO. The action executor is not created for a correct parameter. Moreover it is impossible to remove the last action executor

### 1.3.2 Core components

PR #	Problem Description
54996	<u>SD#200200503</u> Bad performance during dataloading when using the forceResponsible flag
55100	<u>SD#200202343</u> [Cluster] start of a package fails when 2 pkg (containing DB) are started simultaneously on the same node
55108	Temip_sc_get_model has some DFI output corrupted. The output of some DeclareDFI files are corrupted, headers are missing.
55825	<u>SD#200232133</u> There is a SLA with its related Service Level. A parameter of the Service is NotAvailable. I update the Service Level and I add a IsValued SLO on that parameter of the Service. The SLA is updated --> the status of the NotAvailable parameter is "Unknown" but the status of the Service is correctly updated (as if the parameter status was violated whereas the policy is optimistic). A violated status should be displayed instead of the "Unknown" status.
56063	<u>SD#200228342</u> Deleted SCI are still shown in 'SC Service Events' reports.
56412	<u>SD#200241640</u> The SRM sometimes hangs during, or after, the dataloading. The problem is that the SRM seems to be 'stuck' whereas there is no SRM error log, no high CPU usage, no Oracle alert. The problem comes from Oracle sessions that have failed during their processing and have not been closed. When reaching the max number of oracle connections, no new connection to the SRM DB can be opened. This makes the SRM unusable!

### 1.3.3 Service Adapters and Gateways

PR #	Problem Description
54983	Problem duration computation error with a too constrained declared precision on timestamp difference
55083	The TeMIP Alarm Service Adapter returns a wrong value for the parameter Last Creation Time.
55096	TeMIP entities exported into SQM have to be full entity names. The discovery script filters everything that is not a full entity name. Instead of filtering the synonyms, it should force the export of TeMIP full entity names and be less drastic on names exported.
55462	TeMIP Discovery tool does not correctly handle OC namespace. Performing a discovery on TeMIP the Operation Context name is stored without its namespace in the database. It occurs when the namespace does not contain the keyword '_ns'.

# Chapter 2

## Software Prerequisites

### 2.1 HP-UX Software Prerequisites

**Table 1** HP-UX Software Prerequisites

Product	Version	Used by	Note
HP-UX	11.11	SQM wide	Details of HP-UX bundles and tools are listed in the Installation Guide
HP C/ANSI C Developer's Bundle for HP-UX11.i	B3899BA B11.11.04	SPDM and DataMart	Bundled in PHSS_26952
HTTP Apache server for HP-UX	1.3.27	Reporting	
JSP Engine Apache Tomcat for HP-UX	4.1.27	Reporting	
BUSINESSOBJECTS 6.5 / WEBINTELLIGENCE 6.5 Server Products: <ul style="list-style-type: none"><li>• WebIntelligence</li><li>• Data Access pack for Oracle</li></ul>	6.5 6.5	Reporting	
Oracle for HP-UX	9.2.0.6	SQM wide	
Oracle Client for HP-UX	9.2.0 SQL*Plus	Reporting	

## 2.2 Windows Software Prerequisites

The support of Windows 2000 has been deprecated since SQM V1.2 SP1 and is abandoned in SQM V1.3.

The installation of SQM User Interfaces on Windows 2003 server is not supported.

**Table 2 Windows Software Prerequisites**

Product	Version	Used by	Note
Windows XP	SP1 or higher	SQM wide	
Oracle Client for Windows	9.2.0 SQL*Plus	Reporting	
BUSINESSOBJECTS 6.5 / WEBINTELLIGENCE 6.5 Server Products:		Reporting	
<ul style="list-style-type: none"> <li>• WebIntelligence</li> <li>• Data Access pack for Oracle</li> </ul>	6.5 6.5		
Rational Rose Modeler	7.0	Service Designer	The 'Modeler' edition is enough to use Service Designer Add-In, but any other edition can be used.

Other mandatory third-party software, such as Tibco, are packaged with SQM and are not documented in the tables above.

### **Important Notice**

Before starting the Service Designer, please make sure to install the patch for Rational Rose Modeler Edition referenced in the table below.

## Packaging and Installation

### 3.1 Kit Hierarchy

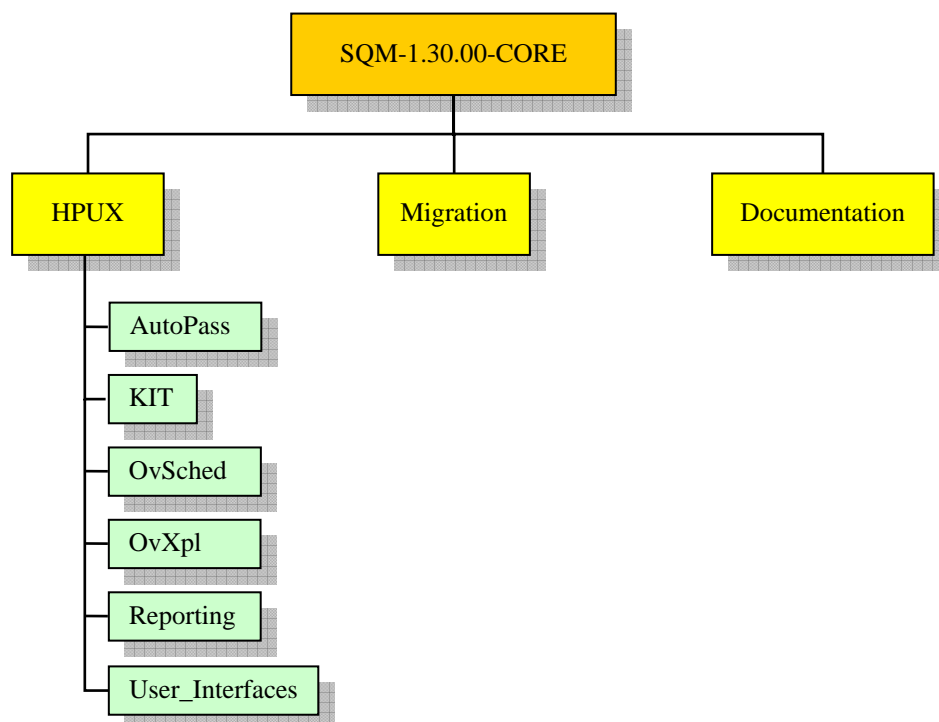
SQM V1.3 is packaged into two CD.

The first CD contains the Core components for HP-UX (folder SQM-1.30.00-CORE).

The second CD contains:

- The Core components for Windows (folder SQM-1.30.00-COREWIN)
- The Service Adapter and Gateway components (folder SQM-1.30.00-SAGTW)
- The Value Packs (folder SQM-1.30.00-VALUEPACK).

#### Core components for HP-UX delivery hierarchy



The Root directory contains the “*sqm\_install*” installation script.

The AutoPass directory contains the licensing software which is installed automatically with *sqm\_install*. This is the same for the OVSched and OVXpl directories.

The KIT directory contains the SQM software package for the HP-UX Operating System. The software package can be installed with the supplied “*sqm\_install*” script.

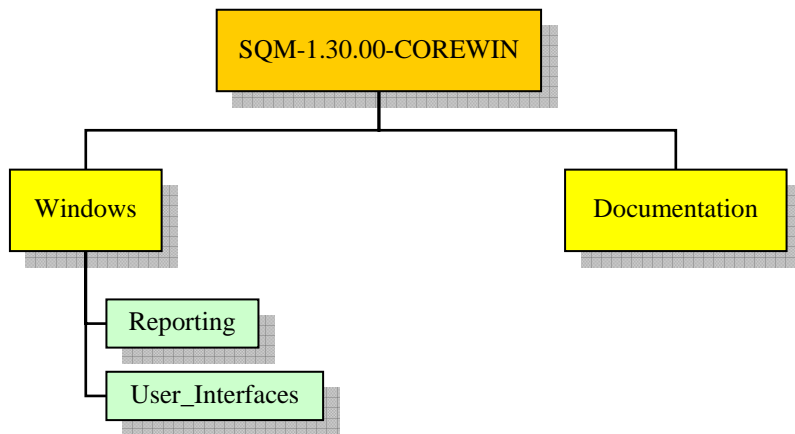
The Reporting directory contains the installer for the Reporting software on HP-UX.

The User\_Interfaces directory contains the installer for the SLA Monitoring UI software for deployment through the Web with Web Start.

The Migration directory contains a tar file including the migration scripts.

The Documentation directory contains the documentation of the core components (refer to the paragraphs 5.1 and 5.4).

### Core components for Windows delivery hierarchy

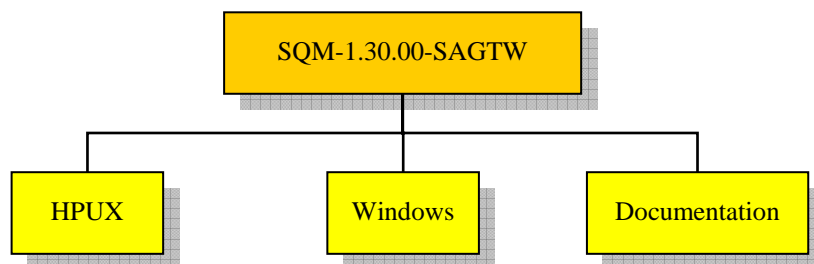


The Reporting directory contains the installer for the Reporting software on Windows.

The User\_Interfaces directory contains the installers for the User Interfaces and User Interface plug-in on Windows. It also contains the installer for the Kernel on Windows.

The Documentation directory contains the documentation for these components (refer to the paragraph 5.1).

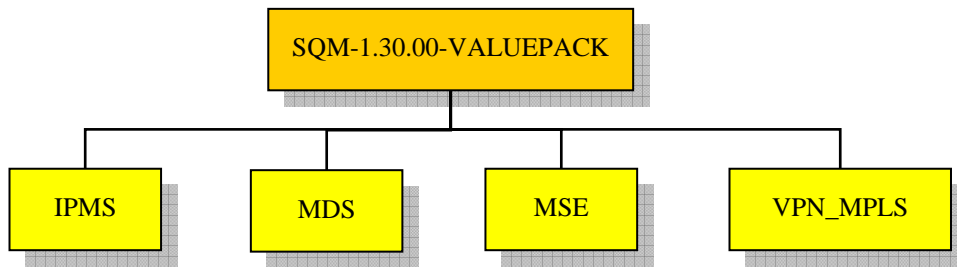
### SA and Gateway components delivery hierarchy



The HPUX and Windows directories contain the installers for each product.

The Documentation directory contains the documentation of the SA and Gateway components (refer to paragraph 5.2).

## Value Pack components delivery hierarchy



Each directory contains the installers and User Documentation for the corresponding Value Pack.

## 3.2 Installation

Please refer to the *OpenView SQM Installation Guide* and to the *Installation, Configuration and User's Guide* of each product component for detailed information about the installation requirements and the installation procedures.

## 3.3 Security Advisories for TIBCO Products

TIBCO recently sent two Security Advisories that may affect SQM.

The first one impacts RendezVous and the second one impacts the Hawk Micro Agent.

### 3.3.1 RendezVous

#### Impacted components

This vulnerability impacts all the SQM systems running the Routing Daemon (a.k.a. RVRD).

Platforms using RendezVous Daemon (a.k.a. RVD) **are not** impacted.

#### Impact

The flaw comes from vulnerability in the HTTP administrative interface (see OpenView SQM Administration Guide).

For SQM, this vulnerability may allow arbitrary code execution with the privileges of the "sqmadm" user.

#### Recommended actions

To mitigate the vulnerability, TIBCO recommend to disable the HTTP administrative interface.

However, if the interface is needed, TIBCO recommends to perform one or several of the following actions:

- Restrict the console access to HTTPS connection
- Set the administrative username and password of the daemon
- Restrict the connection to the local host.

hp recommendations are, at least, to restrict access to HTTPS connection AND to set administrative username and password of the daemon.

These operations can be performed while the SQM platform is running.

### How to disable the HTTP administrative interface

To disable the HTTP administrative interface, the RVRD daemon must be started with the “-no-http” option.

Here is the procedure (to perform on each SQM system):

1. Logon as "sqmadm"
2. Set write right to user "sqmadm" on file \$STEMIP\_SC\_HOME/bin/rvd

```
sqmadm> chmod u+w $STEMIP_SC_HOME/bin/rvd
```

3. Edit the \$STEMIP\_SC\_HOME/bin/rvd file
4. In the file, locate the following block:

```
if [ ! -z "${STEMIP_RVD_RVRD_HTTP_PORT}" ]
then
    http="-http ${STEMIP_RVD_RVRD_HTTP_PORT}"
else
    http=''
fi
```

5. Perform the following changes:

```
# if [ ! -z "${STEMIP_RVD_RVRD_HTTP_PORT}" ]
# then
#     http="-http ${STEMIP_RVD_RVRD_HTTP_PORT}"
# else
#     http=''
# fi

http="-no-http"
```

6. Save the changes and exit from the editor
7. Remove write right to user "sqmadm" on file \$STEMIP\_SC\_HOME/bin/rvd

```
sqmadm> chmod u-w $STEMIP_SC_HOME/bin/rvd
```

### The next steps are needed only if the platform is running

8. Retrieve the PID of the RVRD process

```
sqmadm> ps -exf | grep ${TIB_RV_HOME}/bin/rvr | grep -v
grep
```

9. Kill the RVRD process

```
sqmadm> kill -9 <rvrd process pid>
```

The RVRD process will automatically restart with the new configuration

### How to restrict the console access to HTTPS connections

To restrict the console access to HTTPS connection, the RVRD daemon must be started with the “-https-only” option.

Here is the procedure (to perform on each SQM system):

1. Logon as "sqmadm"
2. Set write right to user "sqmadm" on file \$STEMIP\_SC\_HOME/bin/rvd



```
sqmadm> chmod u+w $STEMIP_SC_HOME/bin/rvd
```

3. Edit the \$STEMIP\_SC\_HOME/bin/rvd file
4. In the file, locate the following block:

```
if [ ! -z "${TEMIP_RVD_RVRD_HTTP_PORT}" ]
then
    http="-http ${TEMIP_RVD_RVRD_HTTP_PORT}"
else
    http=''
fi
```

5. Perform the following changes:

```
if [ ! -z "${TEMIP_RVD_RVRD_HTTP_PORT}" ]
then
    # http="-http ${TEMIP_RVD_RVRD_HTTP_PORT}"
    http="-https-only -https ${TEMIP_RVD_RVRD_HTTP_PORT}"
else
    http=''
fi
```

6. Save the changes and exit from the editor
7. Remove write right to user "sqmadm" on file \$STEMIP\_SC\_HOME/bin/rvd

```
sqmadm> chmod u-w $STEMIP_SC_HOME/bin/rvd
```

**The next steps are needed only if the platform is running**

8. Retrieve the PID of the RVRD process

```
sqmadm> ps -exf | grep ${TIB_RV_HOME}/bin/rvd | grep -v
grep
```

9. Kill the RVRD process

```
sqmadm> kill -9 <rvrd process pid>
```

The RVRD process will automatically restart with the new configuration

### How to set administrative username and password of the daemon

This operation has to be performed directly from the HTTP administrative console, while the SQM kernel is running.

Here is the procedure:

1. Identify your admin console HTTP port.  
This port is stored in the SQM environment variable named:  
TEMIP\_RVD\_RVRD\_HTTP\_PORT

2. Logon an host able to access SQM systems
3. Start a web browser

For each SQM system

4. In the browser address bar, enter the SQM system hostname, followed by the admin consol HTTP port.  
Example:

```
http://host.hp.com:9900
```

This will open the web page of the TIB/RendezVous Administration console.

**TIB/Rendezvous** [host.hp.com]  
 Routing Daemon - 7.4.19 2006-06-08 18:43:04

State: **General Information**

- [General Information](#)
- [Clients](#)
- [Local Networks](#)
- [Connected Neighbors](#)
- [Services](#)

Configuration:

- [Daemon Parameters](#)

component:	rverd
version:	7.4.19
license ticket:	
host name:	
user name:	
IP address:	
client port:	
network services:	
routing names:	
store file:	
process ID:	

- In the interface, click on “Daemon Parameters”. This opens an interface allowing to set administrative username and password.

**TIB/Rendezvous** [host.hp.com]  
 Routing Daemon - 7.4.19 2006-06-09 10:56:08

State: **Daemon Parameters Configuration**

- [General Information](#)
- [Clients](#)
- [Local Networks](#)
- [Connected Neighbors](#)

**Administrator and Password**

Name:

Password:

Confirm Password:

- In “Administrator and Password” panel, define a user and his password. Note: this username and password are only relative to the TIB/Rendezvous Administration console.
  - Click on the [Add/Update] button. A warning should indicate that the security configuration has changed.
- Now, to access to the RVRD configuration, authentication will be requested (once per session).

### 3.3.2 Hawk Micro Agent

#### Impacted components

This vulnerability impacts all the SQM systems running the Tibco Hawk Micro Agent (a.k.a. tibhawkhma).

#### Impact

The flaw comes from a vulnerability in the handling of the Tibco Hawk Micro Agent configuration file.

For SQM, this vulnerability may allow arbitrary code execution with the privileges of the "root" user.

## Recommended actions

To mitigate the vulnerability, TIBCO recommend to restrict rights on the Tibco Hawk Micro Agent configuration file such that only system administrators can modify it.

They also recommend, to restrict the ability to start the Tibco Hawk Micro Agent to system administrators.

Our recommendations are to, restrict those operations to the “sqmadm” user.

## How to apply recommended restrictions

On each SQM system, perform the following operations (kernel must be setup):

1. Logon as “root”
2. Execute the following commands:

```
# chown root:sqmadm $TEMIP_SC_HOME/tibco/hawk/bin/tibhawkhma
# chmod 6754 $TEMIP_SC_HOME/tibco/hawk/bin/tibhawkhma
# chmod 644 $TEMIP_SC_VAR_HOME/config/schma.cfg
```

**From here, steps are needed only if the kernel is running**

3. Logon as “sqmadm”
4. Stop and restart the SQM kernel

```
sqmadm> temip_sc_kernel_stop
sqmadm> temip_sc_kernel_start
```

# Chapter 4

## Known Problems and Limitations

### 4.1 Known Problems

#### 4.1.1 User Interfaces

PR #	Problem Description	Workaround
51076	Popup menu is no more displayed in the SLA Scope list. Related action was open.	Use a double-click to open the SLA.
52998	The TeMIP Gateway does not start. An error is raised indicating 'enable to find libist_SQMSYSTEM.sl'	Install the MIB subset. Refer to the TeMIP Gateway User Guide to know how to proceed with this installation

#### 4.1.2 Core components

PR #	Problem Description	Workaround
52828	Despite improvements made in reports to bypass Business Object limitations, it may remain some unexpected page breaks.	None
58240	The reloadConfig of the temp_sc_ns_admin_tool.sh does not update the NS naming plan (Repository is well updated).	restart the NS (stop/start) after having used reloadConfig in order to update NS naming plan.

#### 4.1.3 Service Adapters and Gateways

PR #	Problem Description	Workaround
51151	When a Data Feeder state changes more than once in a short period or time (i.e. quick lock/unlock on a Data Feeder), a critical error can be logged in the SRM:  Severity : CRITICAL Message : The list of ScDFICollState is supposed to not contain more than one occurrence of an ScDFICollSt	None, but there is no functional impact.

50958	<p>Script Gateway:</p> <p>If the backspace key is pressed (for typo correction) during the script creation setup, this script will fail.</p> <p>An error is logged when starting the Script Gateway application. The configuration cannot be applied on the application.</p>	<p>Edit the XML description file, remove the special characters and call the reload AMI directive on the Script Gateway application.</p>
52608	<p>For SQL Service Adapters, the temp_sc_configure.pl script does not check that the add/remove/listConnector options are executed by the sqmadm user.</p> <p>If the script is executed from the root account, it will cause file right permission problems when the script is executed as sqmadm user.</p>	<p>Avoid using the script as root user for add, remove and listConnector actions.</p>

## 4.2 Known Limitations

### 4.2.1 User Interfaces

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#### Service Designer - Important Notice

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The Service Specifications window introduces several new fields in the Details Tab: Scheduling Mode, Sampling Parameter, Sampling Timeout and Sampling Values.

These fields are for future use and must be left unchanged. The Scheduling Mode must especially be let to the 'Normal' default value.

---

PR #	Problem Description	Workaround
52075	<p>Keyboard shortcuts are only partially implemented in the SLA Monitoring UI.</p> <p>For example, when selecting a parameter, Ctrl-B add it to the dashboard while Ctrl-D (add a parameter to the default dashboard) has no effect.</p> <p>If trying to use the Ctrl-R shortcut to remove the parameter from the dashboard, instead the UI will propose to rename the parameter.</p>	
54046	<p>It is not possible to get connected to UI Monitoring or SLA Admin with a User (or a Group) defined in Unix Yellow Pages</p>	<p>Use users and groups defined locally on the host (in /etc/passwd and /etc/group).</p>
54080	<p>On the UI Monitoring, after an update, the "monitoring scope" sorting order is not re-applied.</p>	<p>Select the sorting order you want after the update.</p>

## 4.2.2 Core components

PR #	Problem Description	Workaround
49331	<p>DataMart:</p> <p>Tunnel SLO are not supported by the DataMart.</p> <p>On Tunnel SLO (e.g. 20&lt; Parameter &lt;40), SQM considers that there are two SLO with independent status.</p> <p>The SLA Monitoring UI processes these statuses and displays a single status for a parameter that has this kind of SLO.</p> <p>In the DataMart, this processing is not done and we have data for the two SLO. These data cannot be exploited especially after Hourly/Daily aggregation.</p>	
53719	<p>As explained in the “information modeling” document (chapter 2.9.4), there should not be several SLAs for the same "Service Instance (SI)" / "Customer" couple (because of compliance computation).</p> <p>This limitation also exists for the shared Service Component Instances (SCI). So, several SLAs should not monitor a same "SCI" / "Customer" couple (have a parameter with an SLO).</p> <p>Otherwise, the SPDM choose one of the SLA (the first alphabetically) for the compliance. Therefore, others SLAs will have a wrong compliance.</p> <p>Note: The SRM checks such semantic validation errors at SI level and logs warnings. However, the SRM does not validate the SCI levels.</p>	
53257	<p>When the table of a report contains more than 4 columns, the 5th and plus columns don't fit within the format of the report page.</p> <p>As a consequence, the 5 and plus columns of the table are neither displayed in the PDF document nor printed in report.</p>	
56739	<p>It is not possible to start an application on a remote node using the 'temip_sc_start_application' command.</p>	<p>Start the application locally to the node</p>

## 4.2.3 Service Adapters and Gateways

PR #	Problem Description	Workaround
19012	<p>When a Data Feeder Instance is deleted or updated (for instance assigned to another Service Adapter application), the Service Adapter managing initially this Data Feeder</p>	<p>Stop and restart the Service Adapter application.</p>

	<p>Instance is not aware of the Data Feeder Instance deletion or update. As a result it continues to publish unexpected measures.</p> <p>The measures are duplicated when the Data Feeder Instance has been moved from a Service Adapter application to another.</p>	
--	--	--

#### 4.2.4 User Documentation

The full User Documentation set is given, but unchanged documents still refer to the SQM V1.2 version.

# Chapter 5

## SQM Documentation Set

The manuals for Service Quality Manager are shipped as PDF files.

### 5.1 SQM Core Documentation

SQM Core documentation is made of the following manuals:

- OpenView SQM Overview
- OpenView SQM SLA Monitoring UI User's Guide
- OpenView SQM Service Designer UI User's Guide (updated)
- OpenView SQM SLA Administration UI User's Guide
- OpenView SQM Getting Started Guide
- OpenView SQM Installation Guide (updated)
- OpenView SQM Administration Guide (updated)
- OpenView SQM Information Modeling Reference Guide
- OpenView SQM Datamart User's Guide (updated)
- OpenView SQM Reporting Customization and User's Guide (updated)
- OpenView SQM Datamart Installation, Configuration and Administration Guide (updated)
- OpenView SQM Reporting Installation, Configuration and Administration Guide (updated)
- OpenView SQM Oracle Reference Guide

### 5.2 SQM SA and Gateways Documentation

SQM SA and Gateways documentation is made of the following manuals:

- OpenView SQM Service Adapters User's Guide
- OpenView SQM SQL Service Adapter Toolkit Installation, Configuration and User's Guide
- OpenView SQM Service Adapters Software Development Toolkit Development Guide
- OpenView SQM Service Adapter Proxy Installation, Configuration and User's Guide
- OpenView SQM Service Adapter for OVIS Installation, Configuration and User's Guide



- OpenView SQM Service Adapter for OVSN Installation, Configuration and User's Guide
- OpenView SQM Service Adapter for OVSD Installation, Configuration and User's Guide
- OpenView SQM Service Adapter for OVO Installation, Configuration and User's Guide
- OpenView SQM Gateway for OVO Installation, Configuration and User's Guide
- OpenView SQM TeMIP Alarm Service Adapter Installation, Configuration and User's Guide
- OpenView SQM Cookbook for TeMIP integration with Acanthis KnowledgeWare
- OpenView SQM TeMIP Gateway Installation, Configuration and User's Guide
- OpenView SQM Script Gateway Installation, Configuration and User's Guide
- OpenView SQM Action Executor for Simple Network Management Protocol V2 Installation, Configuration and User's Guide

## 5.3 Value Packs

- OpenView SQM Mobile Data Services Value Pack User's Guide
- OpenView SQM Mobile Subscriber Experience Value Pack User's Guide
- OpenView SQM Internet Protocol Multimedia Service Value Pack User's Guide
- OpenView SQM VPN Services over MPLS Value Pack User's Guide [\(new\)](#)

## 5.4 Other Documentation

The Tibco and AutoPass documents are packaged with the SQM Core documentation:

- Tibco Designer User's Guide
- Tibco Rendezvous Administration
- Tibco Hawk Administrator's Guide
- HP OpenView AutoPass Licensing Guide

## Chapter 6

# Software Availability in Native Languages

- The OpenView SQM user interfaces are supplied in US English.
- OpenView SQM supports UniCode character sets.
- OpenView SQM has been designed to support the installation in different language environment.
- OpenView SQM V1.3 can be localized.
- Manuals, online help, and references are only available in US English.

# Chapter 7

## Migration Guide

This section describes the migration from SQM V1.2 Service Pack 1, to SQM V1.3.

A migration from other version than SQM V1.2 SP1 to SQM V1.3 is not supported and has to be done through a complete re-installation.

The migration steps section lists the different tasks that you may have to do and how to do them.

The migration path section details different use cases depending on your situation and requirements.

### 7.1 Known Migration Limitations

PR #	Problem Description	Workaround
55108	<p>The migration procedure does not require backup the SQM model using the “temip_sc_get_model” command.</p> <p>However, customer wanting to backup their model with this tool have to take care of the following problem:</p> <p><i>Temip_sc_get_model has some DFI output corrupted. The output of some DeclareDFI files are corrupted, headers are missing.</i></p>	<p>Before the backup, install the Epatch SQM-1.20.02_30012</p>
59260	<p>For SQM V1.3 some predefined expressions have been re-worked to support the Time Aggregation (these are the “aggregation” expressions).</p> <p>Therefore, the predefined expressions are re-delivered, and after the first startup of the SRM V1.3, previous ones will be automatically overwritten.</p> <p>This can lead to two issues:</p> <p><b>Case 1:</b></p> <p>If a model, retrieved from SQM V1.2, is “injected” in SQM V1.3 (using a “temip_sc_get_model” then a “temip_sc_load_model”), redelivered expressions will be overwritten by the old ones.</p>	<p><b>Case 1:</b></p> <p>After the model loading on SQM V1.3 (“temip_sc_load_model”), it is necessary to:</p> <ul style="list-style-type: none"><li>- stop the SRM</li><li>- in the “\$TEMIP_SC_VAR_HOME/Definitions/Expressions” directory, remove all the files ending with “.loaded”</li><li>- restart the SRM</li></ul> <p>This will force the SRM to reload all the redelivered expressions.</p>

	<p><b>Case 2:</b></p> <p>While not recommended, if a customer has updated some SQM predefined expressions, his changes will be lost after the SRM startup (during the migration)</p>	<p><b>Case 2:</b></p> <p>If you have modified the predefined expressions, we recommend to backup them before applying the migration (example, using the “temip_sc_get_expr” command)</p> <p>After the SRM V1.3 first startup, it will be possible to “replace” redelivered expressions by the modified ones. However, to work with “Time Aggregation”, modified expressions will have to be able to handle an “empty” input (empty collection of values).</p>
--	--	---

## 7.2 Migration Paths

---

### Important Notices

---

Carefully read the migration procedure before to apply it.

The migration steps described below must strictly be run in the given order.

It is highly recommended to backup your databases before migration.

Pay attention on the user to be used for each command: either 'root' or 'sqmadm'.

Ensure you have sufficient free disk space for:

- Database backup (depends on the size of database to backup)
  - OV SQM binary installation (similar to V1.2 SP1 size)
  - Migration of data tree (similar to V1.2 SP1 size)
- 

### 7.2.1 Integration system

I want to keep the platform environment (SA/Model/Instances) **but I accept to loose the data collected during the migration:**

1. Install SQMV130 binary and Migration tools
2. Install SA / Gateway
3. Stop V1.2 SP1 Platform / Stop V1.2 SP1 Kernel (on all hosts if any)
4. Perform Databases Migration for SRM / SPDM / Logger, do not migrate DataMart DBs (refer to 7.4 Databases Migration)
5. Perform Platform Migration
6. Perform Personal settings migration (refer to 7.3.3 Personal settings migration)
7. Start SQMV130 SRM
8. Start SQMV130 SPDM component and wait for the end of its initialization (check its log for the end of its internal model update and its activity resume)
9. Start SQMV130 platform (except slreporting and acquisition director).
10. Start SQMV130 acquisition director
11. Migrate Script Gateway (if any)
12. Start SQMV130 Gateway director
13. Test collection, UI Admin, UI Monitoring ...
14. Perform Databases Migration for DataMart DB (refer to 7.4 Databases Migration)
15. Perform the post-migration tasks (refer to 7.3.4 Post-migration tasks)
16. Start SQMV130 slreporting director

### 7.2.2 Production System

I want to keep my platform environment (SA/Model/Instances) **and I want to:**

- avoid data loss: SA will be down for several minutes → some data can be lost

- minimize impact on computed values: SPDM will be unavailable for several minutes → some calculation steps will be lost
1. Install SQMV130 binary and migration tools (refer to 7.3.1 Binary / Migration tools Installation)
  2. Install existing Service Adapters one by one (refer to 7.5 SA Migration (including Value Pack))
    - i.7.5.1 SQLSA regeneration (you are owner of the SQL SA)
    - ii.7.5.2 SA Installation
  3. Install existing Gateway one by one (refer to 7.7 Gateway migration)
    - iii.7.7.1 Gateway installation
  4. Stop V1.2 SP1 SLA Admin applications
  5. Stop V1.2 SP1 SRM
  6. Perform Databases Migration for SRM DB (refer to 7.4 Databases Migration)

**Downtime starts here**

- a. Stop all SAs and Gateways
- b. Stop V1.2 SP1 Platform / Stop V1.2 SP1 Kernel (on all hosts if any)
- c. Perform Platform Migration (primary and secondary hosts if any)
- d. Complete Script Gateway migration (refer to 7.7.2 Complete Script Gateway migration)
- e. Perform Personal settings migration for SRM only (refer to 7.3.3 Personal settings migration)
- f. Restart Kernel (V1.3) (on all hosts if any)
- g. Restart SRM (V1.3)
- h. Restart Service Adapter directors

**End of downtime**

7. Perform Databases Migration for SPDM DB (refer to 7.4 Databases Migration)
8. Restart Gateway directors
9. Complete Personal settings migration (refer to 7.3.3 Personal settings migration)
10. Start SQMV130 SPDM component and wait for the end of its initialization (check its log for the end of its internal model update and its activity resume)
11. Start SQMV130 slmonitoring director
12. Perform Databases Migration for Logger / DataMart DBs (refer to 7.4 Databases Migration)
13. Perform the post-migration tasks (refer to 7.3.4 Post-migration tasks)
14. Start the DataMart

## 7.2.3 CM/SG Cluster Systems

During the migration, you will be asked to relocate all the SQM V1.2 SP1 packages onto one node. Let name this node: “Primary node” and the other nodes: “Secondary nodes”.

**On each node:**

1. Install SQM V1.3 binary and migration tools (refer to 7.3.1 Binary / Migration tools Installation)
2. Install existing Service Adapters one by one (refer to 7.5 SA Migration (including Value Pack))
  - i.7.5.1 SQLSA regeneration (you are owner of the SQL SA)
  - ii.7.5.2 SA Installation
3. Install existing Gateway one by one (refer to 7.7 Gateway migration)
  - iii.7.7.1 Gateway installation
4. Install the SQM-1.30.00\_10003 and SQM-1.30.00\_10004 Epatches.
5. Stop V1.2 SP1 SLA Admin applications

**On the primary node:**

6. Prepare the migration (refer to 7.8.1 Prepare the migration)
7. Stop V1.2 SP1 SRM
8. Perform the SRM Databases Migration (refer to 7.4 Databases Migration)
9. Stop SQM V1.2 SP1 (refer to 7.8.2 Stop SQM V1.2 SP1)
10. Perform the platform migration (refer to 7.8.3 CM/SG Cluster platform migration)
11. Migrate the SPDM and Logger databases (refer to 7.4 Databases Migration)

**On each node:**

12. Perform the personal setting migration

**On the primary node:**

13. Perform the first startup of the SQM V1.3 monitoring package (refer to 7.8.4 First startup of SQM 1.3 monitoring package)
14. (optional) Migrate Script Gateway (if any)
15. Migrate the DataMart databases (refer to 7.4 Databases Migration)

**On each secondary node:**

16. Migrate secondary nodes (refer to 7.8.5 Migrate secondary nodes)

**On each node:**

17. Perform the post-migration tasks (refer to 7.3.4 Post-migration tasks)
18. Start all the required SQM components (Datamart, Service Adapters, ...)

## 7.3 Migration Steps

### 7.3.1 Binary / Migration tools Installation

The new SQMV1.3 subsets have to be installed in a new <TEMIP\_SC\_HOME> directory using sqm\_install (do not install SQMV1.3 binaries over SQMV1.2 binaries).

This has to be done on each SQM host (primary and secondary ones if any). Refer to OV SQM Installation Guide for details.

Example (on primary host):

- Before migration binaries are in /opt/OV/SQM
- Install SQMV1.3 kit in <TEMIP\_SC\_HOME\_V130>

CD\_DIRECTORY refers to the location where you have put the software package (SQM-1.30.00-CORE.tar.gz)

```
root# sqm install <TEMIP_SC_HOME_V130> $CD_DIRECTORY/SQM-1.30.00/SQM-1.30.00-CORE/HPUX/KIT typical
(if reporting was installed)
root# sqm install <TEMIP_SC_HOME_V130> $CD_DIRECTORY/SQM-1.30.00/SQM-1.30.00-CORE/HPUX/KIT reporting
```

Install the migration scripts (to be done on slmonitoring and reporting hosts):

```
root# cd <TEMIP_SC_HOME_V130>
root# gunzip < $CD_DIRECTORY/SQM-1.30.00/SQM-1.30.00-CORE/Migration/SQMMIGRATIONV130.tar.gz | tar xvf -
```

## 7.3.2 Platform Migration

Due to the new Tibco 5.3 version used in SQM V1.3, a migration of the platform is required.

**Pre-requisite:** platform and kernel of the SQM V1.2 platform have been stopped.

### 7.3.2.1 Primary host migration

#### Part 1 – Migrate the datamart repository

Check that all SQM and Tibco processes are down, and kill the remaining one if any:

```
root# ps -efx | grep SQM
root# ps -efx | grep rvd
root# ps -efx | grep rvrd
```

Upgrade the V120 repository to integrate new configuration variables:

```
root# . <TEMIP_SC_VAR_HOME_V120>/temip_sc_env.sh
root# cd <TEMIP_SC_HOME_V130>
root# export TEMIP_SC_HOME=`pwd`
root#
$TEMIP_SC_HOME/migration/v130/scripts/dm_repos_migration.sh
```

#### Part 2 – Setup the V130 platform

Perform a SQMV130 setup (platform configuration and deployment) using a different platform name (slmv13). You can keep existing port number.

Note: No previous sqmadm environment variables must be loaded (we recommend to use a new xterm)

```
root# cd <TEMIP_SC_HOME_V130>
root# export TEMIP_SC_HOME=`pwd`
root# export ORACLE_HOME=<your ORACLE_HOME>
root# export DISPLAY=<your DISPLAY>
root# cd setup
root# ./temip_sc_gui_setup
```

#### Part 3 – Migrate the data tree

Perform data tree migration: run following command in order to migrate TEMIP\_SC\_VAR\_HOME:

```
root# cd <TEMIP_SC_HOME_V130>/migration/v130/scripts
root# . <TEMIP_SC_VAR_HOME_V130>/temip_sc_env.sh
```



```

root# ./MigrateDataTree.sh
Would you like enter the EXISTING TEMIP_SC_VAR_HOME directory:
<TEMIP_SC_HOME_V120>
Would you like enter the NEW TEMIP_SC_VAR_HOME directory:
<TEMIP_SC_HOME_V130>
Logfile of ./MigrateDataTree.sh is available in
/var/opt/OV/SQM/slmv13/trace/migretedatatree_xxxxx.log
...
DONE ...

```

## Part 4 – Import and migrate the repository

Start the SQM V1.3 kernel, and run the SQMV1.3 Tibco designer to update some parameters manually:

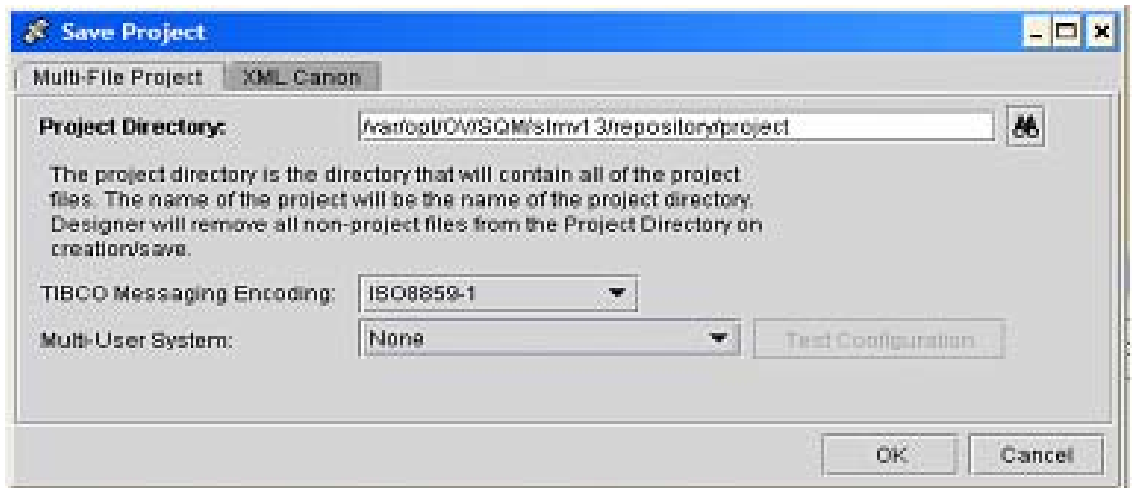
```

sqmadm> . <TEMIP_SC_VAR_HOME_V130>/temip_sc_env.sh
sqmadm> temip_sc_kernel_start
... wait for startup...
sqmadm> designer&

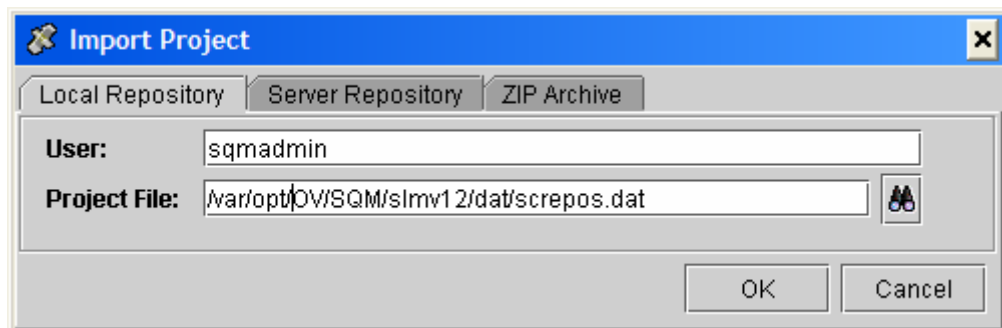
```

Create a new empty project (refers to SQM Administration Guide for usage of the designer).

Use the **New empty project** button to create a local Multi-File project. We recommend you to store it under *TEMIP\_SC\_VAR\_HOME/repository/project*



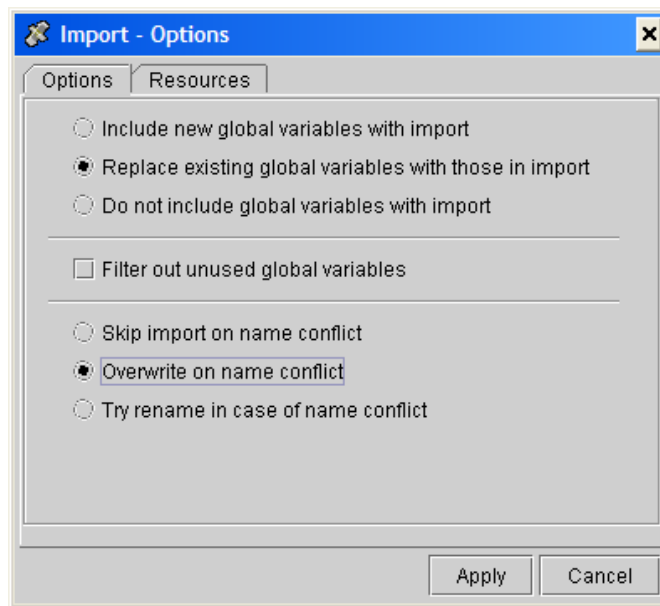
Import the slmv12 project: Menu “Project/Import full project...”. Select the v120 repository file in the “Local Repository” tab (\$TEMIP\_SC\_VAR\_HOME\_V120/dat/screpos.dat).



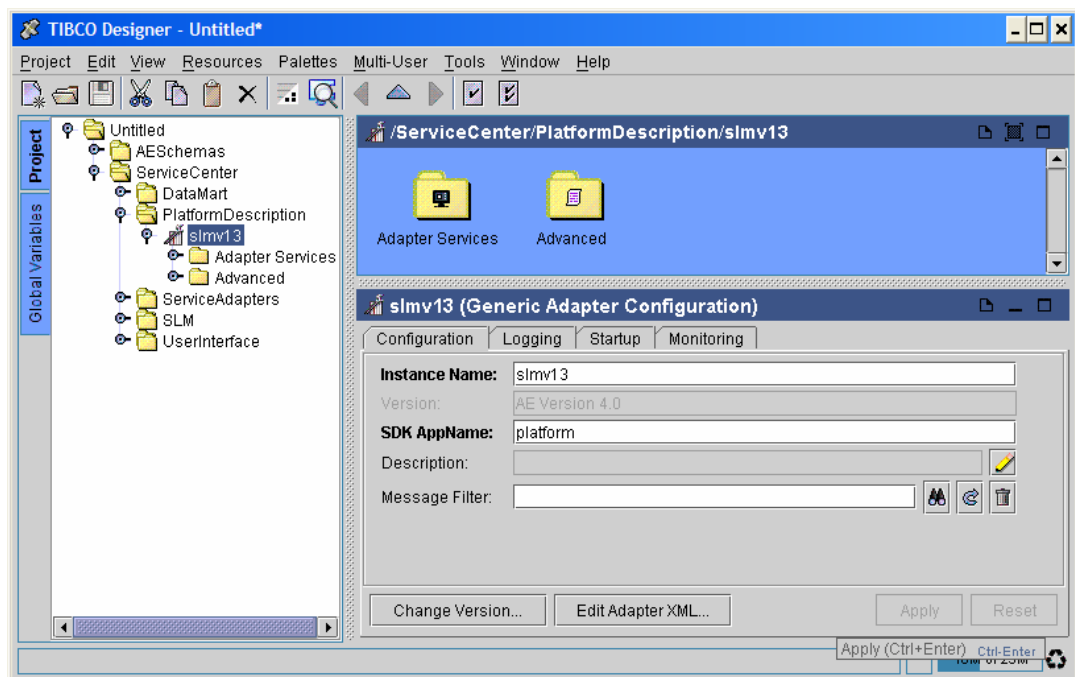
Choose the Import options:

"Replace existing variables with those of import"

"Overwrite on name conflict"



Change the platform name: "slmv12" to "slmv13"  
(/Project/ServiceCenter/PlatformDescription).

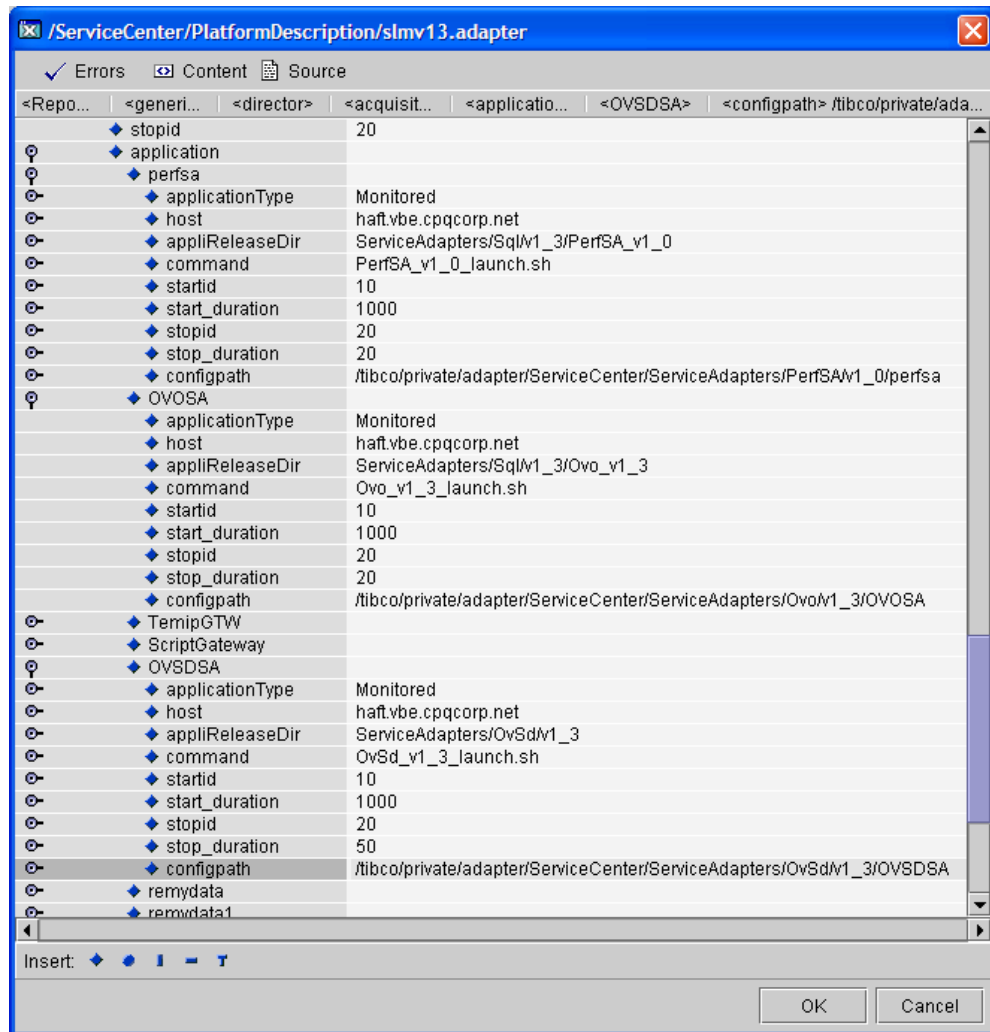


With the Tibco Designer, you have to change the **Release** version for each SA/GTW (v1\_2 => v1\_3):

- Select the folder version for each migrated SA (ServiceCenter/ServiceAdapters/<SA name>/V1\_2) and change v1\_2 to v1\_3.
- Select the folder version for each migrated Gateway (ServiceCenter/Gateways/<Gateway name>/V1\_2) and change v1\_2 to v1\_3.

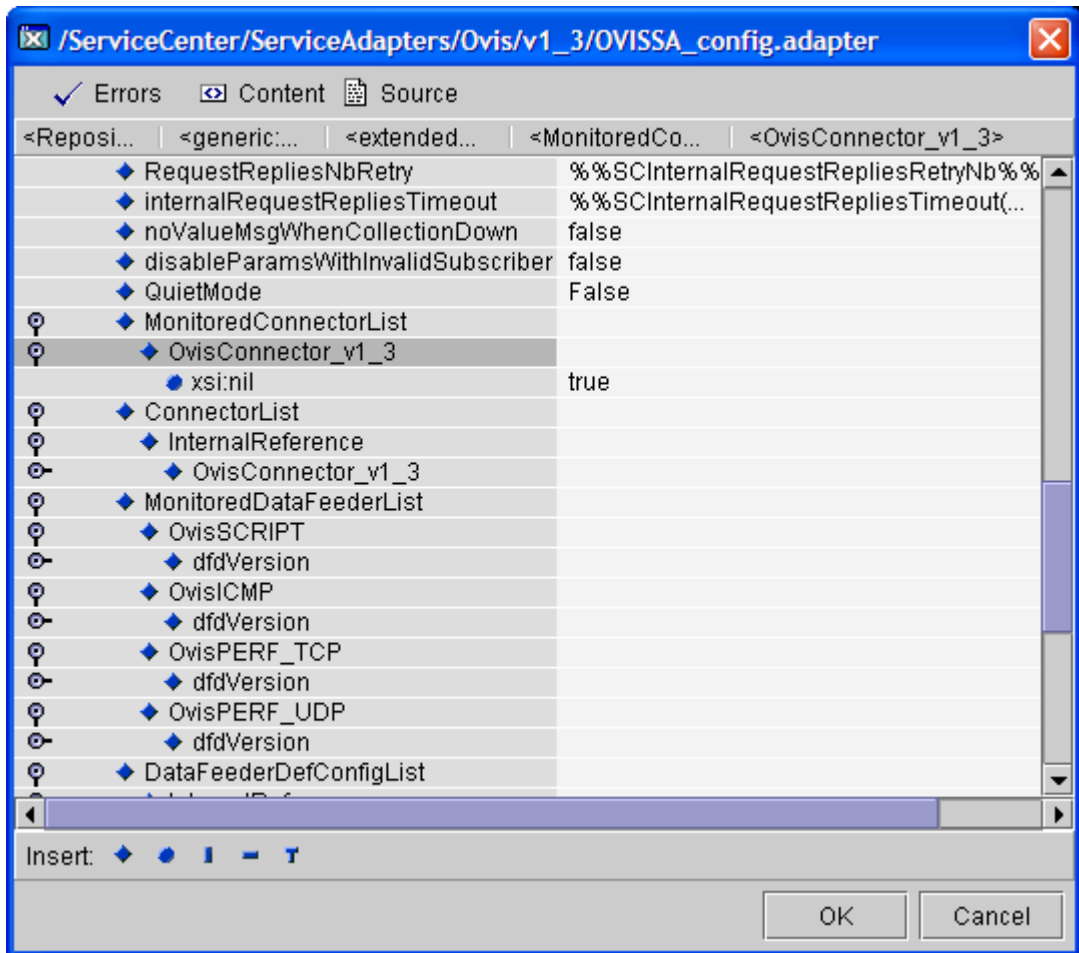
Select the platform adapter (ServiceCenter/PlatformDesc/slmv13). Click "Edit Adapter XML..." on the bottom of the "Configuration" tab.

- Find the “appliReleaseDir” attribute for each migrated SA and Gateway and change v1\_2 to v1\_3
- Find the “configpath” attribute for each migrated SA and Gateway and change v1\_2 to v1\_3.
- Find the “command” attribute for each migrated SA and Gateway and change v1\_2 to v1\_3.

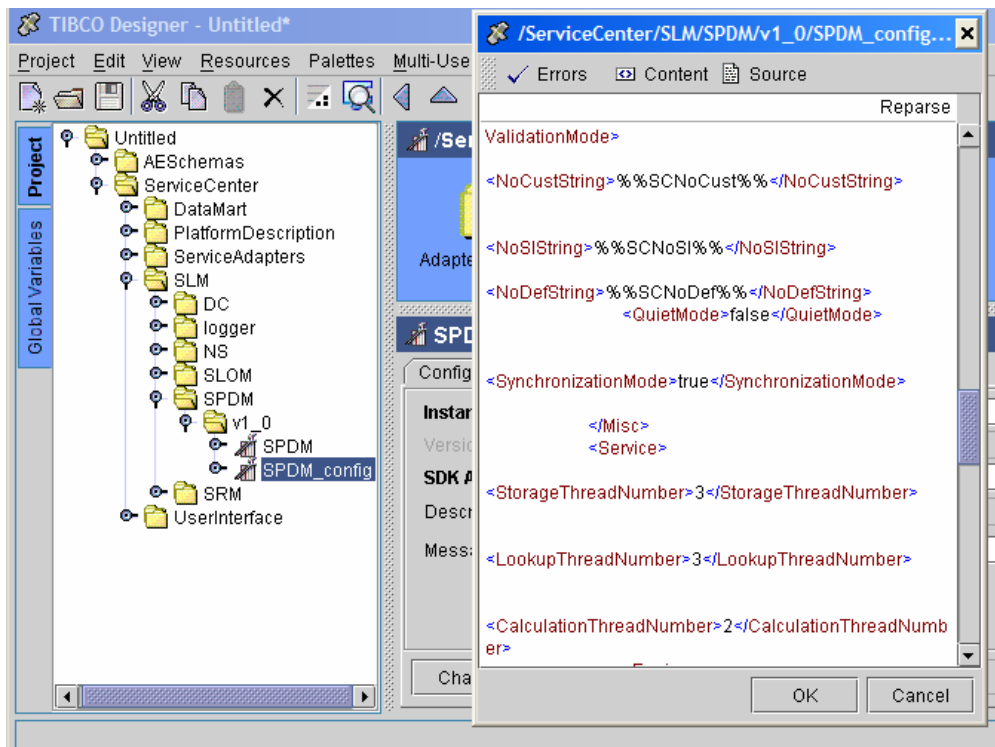


- Select the OVIS SA Configuration adapter (ServiceCenter/ServiceAdapters/OVIS/OVISSA\_config)
- Click “Edit Adapter XML...” on the bottom of the “Configuration” tab.

- Rename the attributes “OvisConnector\_v1\_2” to “OvisConnector\_v1\_3”

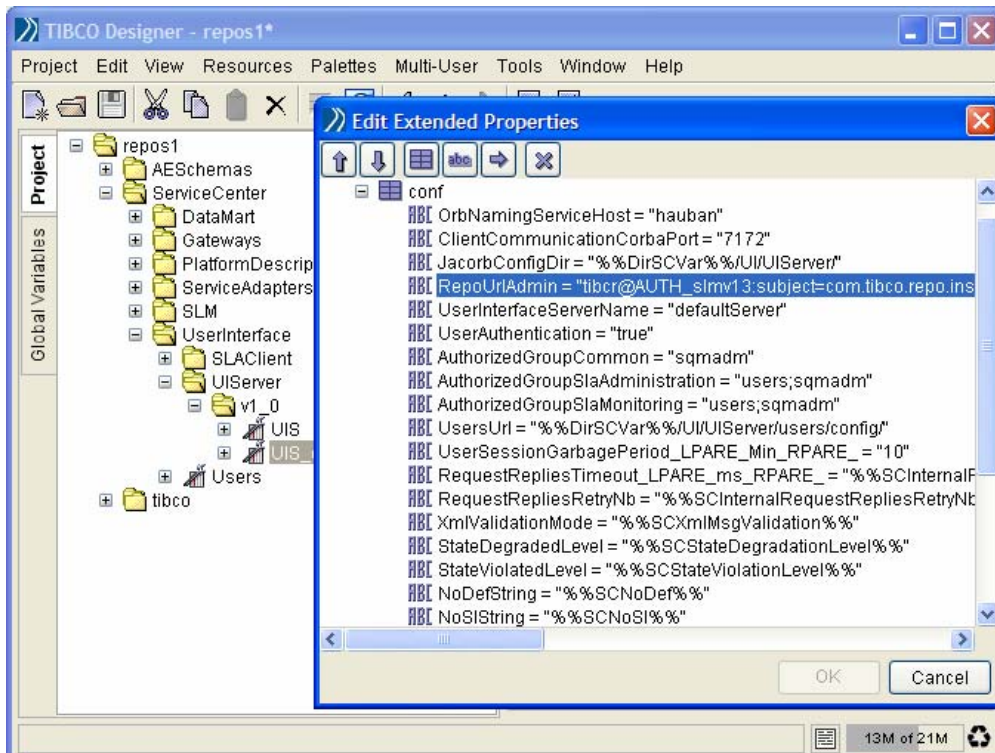


Check that the 'SynchronizationMode' for SPDM\_config is 'true'  
 (/Project/ServiceCenter/SLM/SPDM/v1\_0)



Change the connection parameters for the UI Admin. Edit the UIS\_Config properties  
 (ServiceCenter/UserInterface/UIServer/v1\_0/UIS\_Config):

For RepoUrlAdmin , change tibcr@screpos.... into  
 tibcr@AUTH\_<platform\_name>..... (where <platform\_name> represents the name of  
 the platform).



Click **SAVE** button (or menu **Project/Save**) to update local project.

'Export the full project' (menu: project) to the server repository:

**Export Project**

Local Repository | **Server Repository** | ZIP Archive

**User:** sqmadmin

**Password:** \*\*\*\*\*

**Transport Protocol:**  RV  RVA  HTTP  HTTP-S

**Domain:** slmv13

**Project Name:** AUTH\_slmv13

Advanced

**Daemon:** tcp:9280

**Network:** ;

**Service:** 9268

**Timeout (s):** 10

**Request Subject Prefix:** com.tibco.repo.instance\_discovery.request

#### Notes

You can get tibco parameter with the following command: `env | grep REPOS`

The password by default is **SqmAdmin**.

You will get strange exception if you forget to enter a password...

**Before starting the platform, you must have completed the Database migration (see 7.4).**

Choose to overwrite the exiting project when prompted:

**Overwrite**

A project already exists at that location. Do you want to overwrite it?  
Choosing "Yes" to overwrite the project will permanently delete all current project data.

### 7.3.2.2 Secondary host migration (if any)

**Pre-requisite:** primary host migrated and kernel started.

Following steps must be done on each secondary host.

Check that all SQM and Tibco processes are down, and kill the remaining one if any:

```
root# ps -efx | grep SQM
root# ps -efx | grep rvd
root# ps -efx | grep rvrd
```

Copy the *platform\_desc.cfg* from the primary host.

Example:

```
root# cd <TEMIP_SC_HOME_V130>/tmp
root# rcp <Primary
Server>:<TEMIP_SC_HOME_V130>/tmp/platform_desc.cfg .
```

Ensure no <host> entry is defined for the secondary host you are migrating. If an entry exists, edit the *platform\_desc.cfg* to remove it

Example:

```
root# cd <TEMIP_SC_HOME_V130>/tmp/
root# grep <secondary_hostname> platform_desc.cfg
root#
```

Run *temip\_sc\_setup* in order to deploy kernel.

Example:

```
root# cd <TEMIP_SC_HOME_V130>/setup/bin
root# temip_sc_setup -all -NI -migrate
```

Perform data tree migration: run following command in order to migrate your *TEMIP\_SC\_VAR\_HOME*:

```
root# cd <TEMIP_SC_HOME_V130>/migration/v130/scripts
root# . <TEMIP_SC_VAR_HOME_V130>/temip_sc_env.sh
root# ./MigrateDataTree.sh
Would you like enter the EXISTING TEMIP_SC_VAR_HOME directory:
<TEMIP_SC_HOME_V120>
Would you like enter the NEW TEMIP_SC_VAR_HOME directory:
<TEMIP_SC_HOME_V130>
Logfile of ./MigrateDataTree.sh is available in
/var/opt/OV/SQM/slmv13/trace/migretedatatree_XXXXX.log
...
DONE ...
```

### 7.3.3 Personal settings migration

If you did specific custom on your V1.2 SP1 platform don't forget to apply them on your newly V1.3 platform (this is not done by migration script).

For each file customized on V1.2 SP1 do a diff with new V1.3 file and apply your customization.

Following lists files that are usually customized:

- Launcher: *\$TEMIP\_SC\_HOME/adapter/bin/*
- Config files: *\$TEMIP\_SC\_VAR\_HOME/SLM/<ApplicationName>/config/*

Example: If you did modification in SPDM launcher:

```
% diff $TEMIP_SC_HOME_V120/adapter/bin/spdm_launch.sh
$TEMIP_SC_HOME_V130/adapter/bin/spdm_launch.sh
6a7,8
> ${TEMIP_SC_HOME}/lib/velocity-dep-1.4.jar:\
> ${TEMIP_SC_HOME}/lib/TeSCSpdmExpr.jar:\
18c20
< export JAVA_ARG="-Xmx512M -Xms128M"
---
> export JAVA_ARG=" -Xmx128M "
```

In this case you'll have to update the JAVA\_ARG command line argument of your V130 SPDM launcher. DO NOT UPDATE the jar files used in classpath, they have been updated for V130 (it's not a configurable section).

### 7.3.4 Post-migration tasks

Once the SQM V1.3 platform has been successfully started:

- **Update your purge script** in order to use the environment corresponding to your new SQM V1.3 platform
- Turn back *SynchronizationMode* of SPDM to its original value (should be false) and re-export the repository
- Clean up old SQM V120 directories (optional – we recommend not to clean this directories in order being able to retrieve data from previous platform)
- Because BO Master universe has been updated (due to improvement and new DM schema) you have to reload it on your BO server. Refer to OV SQM reporting documentation for such update. Refer to chapter [7.6] [Reporting Migration] in current Release Notes to check if you need to migrate your specific report.

## 7.4 Databases Migration

The database schemas have changed in SQM V1.3. A migration procedure is necessary for each database to run SQM V1.3.

### Preparatory operations

Before migrating the databases, you have to copy old database configuration into SQMV130 data tree:

```
root# mkdir /var/opt/OV/SQM/<V130 platform name>
root# chown sqmadm:sqmadm /var/opt/OV/SQM/<V130 platform name>

sqmadm> cp -rp /var/opt/OV/SQM/<V120 platform name>/oracle
/var/opt/OV/SQM/<V130 platform Name>
```

#### Important Notice

We highly recommend to backup your databases before migration in order being able to redo DB migration in case of any problem.

Refer to *SQM Administration Guide* for SRM DB backup and *SQM Reference Guide for Oracle use* for SPDM and Datamart DB backup.

### 7.4.1 SRM

This migration implies minor changes (only database schema update)

**Pre-requisite:** SRM stopped / Database Started / old database configuration copied from V120 platform (see 7.4 Databases Migration)

Run the following commands:

```
root# . /var/opt/OV/SQM/<V120 platform name>/temip_sc_env.sh
root# export TEMIP_SC_HOME=<TEMIP_SC_HOME_V130>
root# export TEMIP_SC_VAR_HOME=/var/opt/OV/SQM/<V130 platform
name>
root# $TEMIP_SC_HOME/migration/v130/scripts/migrate_srm.sh
```



## 7.4.2 SPDM

This migration implies some changes in the SPDM schema and a reloading of SPDM engines.

**Pre-requisite:** SPDM stopped / Database Started / old database configuration copied from V120 platform (see 7.4 Databases Migration)

Run the following commands:

```
root# . /var/opt/OV/SQM/<V120 platform name>/temip_sc_env.sh
root# export TEMIP_SC_HOME=<TEMIP_SC_HOME_V130>
root# export TEMIP_SC_VAR_HOME=/var/opt/OV/SQM/<V130 platform
name>
root# $TEMIP_SC_HOME/migration/v130/scripts/migrate_spdm.sh
```

## 7.4.3 Logger

This migration implies some minor changes in the logger schema.

**Pre-requisite:** logger stopped / Database Started / old database configuration copied from V120 platform (see 7.4 Databases Migration)

Run the following commands:

```
root# . /var/opt/OV/SQM/<V120 platform name>/temip_sc_env.sh
root# export TEMIP_SC_HOME=<TEMIP_SC_HOME_V130>
root# export TEMIP_SC_VAR_HOME=/var/opt/OV/SQM/<V130 platform
name>
root# $TEMIP_SC_HOME/migration/v130/scripts/migrate_logger.sh
```

## 7.4.4 DataMart

Please note that depending on the volume of data archived, the migration of the DataMart database can be very long ...

**Pre-requisite:** DataMart stopped / Database Started / old database configuration copied from V120 platform (see 7.4 Databases Migration), SRM running.

Run the following commands:

```
root# . /var/opt/OV/SQM/<V120 platform name>/temip_sc_env.sh
root# export TEMIP_SC_HOME=<TEMIP_SC HOME V130>
root# export TEMIP_SC_VAR_HOME=/var/opt/OV/SQM/<V130 platform
name>
root# $TEMIP_SC_HOME/migration/v130/scripts/dm_db_migration.sh
```

Check the migration script output to validate that all tables were migrated:

```

*****
*****
*****      PRODUCTION AREA MIGRATION SUMMARY      *****
*****

number of tables to be migrated :
-----
                                574

number of tables successfully migrated :
-----
                                574

Result :
-----
All V120 tables migrated and cleaned successfully.

*****
*****

```

## 7.5 SA Migration (including Value Pack)

Due to the new Tibco 5.3 version used in SQMV1.3, a migration of the Service Adapters is required.

You can face 2 cases:

- SQLSA: if you are owner of the source of the kit you need to regenerate it using SQM V1.3 SQL SA Toolkit
- Other (you are not owner of the source).  
In such case you need to retrieve the new V1.3 kit to be installed (ask your provider).  
For standard SQM SA, kits are available within OV SQM V1.3 delivery.  
In case of **Value Pack**: the V1.3 SQLSA kits are delivered with SQM V1.3 Value Pack under  
\$TEMIP\_SC\_HOME/SolutionSet/<ValuePack\_name>/SQLSA/<SA\_name>

### 7.5.1 SQLSA regeneration (you are owner of the SQL SA)

**Pre-requisite:**

```

root# export TEMIP SC HOME=<TEMIP SC HOME V130>
root# $TEMIP SC HOME/jre/jre-setup.sh
root# export DISPLAY=<your_Display>

```

Because platform setup has not been done and a TEMIP\_SC\_VAR\_HOME directory is required for the SQL SA Toolkit you have to create it manually:

```

root# cd /var/opt/OV/SQM
root# mkdir -p <platform name V13>/log
root# mkdir -p <platform name V13>/trace
root# chown -R sqmadm:sqmadm <platform name V13>

```

Install the following subsets:

- SQMSAGTWCCOMMON-1.30.00.bin
- SQMSASQL-1.30.00.bin
- SQMSASQLTK-1.30.00.bin

## Setup the SQLSA Toolkit.

```
root# cd
<TEMIP_SC_HOME V130>/ServiceAdaptersToolkit/Sql/v1_3/bin
root# ./temip_sc_setup_sqltk.sh
Using: TEMIP_SC_HOME=<TEMIP_SC_HOME V130>
Enter value for "TEMIP_SC_VAR_HOME": /var/opt/OV/SQM/slmv13
Using previous settings...
Enter value for "TEMIP_SC_JDBC_DRIVER_CLASSPATH":
/usr/ORACLE/u01/app/oracle/product/9.2.0/jdbc/lib/ojdbc14.jar
Using:
TEMIP_SC_JDBC_DRIVER_CLASSPATH=/usr/ORACLE/u01/app/oracle/produ
ct/9.2.0/jdbc/lib/ojdbc14.jar
Please wait while checking and installing license.
```

Regenerate the SQL SA kit installed on your SQM platform (see Chapter 5.4 of the SQL Service Adapter Toolkit Installation, Configuration and User's Guide)

```
sqmadm> temip_sc_start_sqltk[.sh .bat] -clui
CMD> load C:\SQLSATKSAMPLE.sqltk
[INFORMATION] : Project loaded (C:\SQLSATKSAMPLE.sqltk).
CMD> Generate
[INFORMATION] : Generating kit...
[WARNING].... : TIMEINFO.v1_0.DAY : The 'units' should be
defined.
...
[INFORMATION] : Generating TIBCO application definition file.
[INFORMATION] : Generating archive file SQLSATKSAMPLE.zip'.
[INFORMATION] : Kit generated (C:\SQLSATKSAMPLE.zip).
CMD> quit
```

## 7.5.2 SA Installation

You have to install each SA on the SQMV130 platform and complete the installation manually. The setup/configuration phase described in Installation guide must not been done since you will reuse your old V120 configuration.

This has to be done under root account, TEMIP\_SC\_HOME must be set. Install the following subsets first (already done if you have installed the SQL SA Toolkit):

- SQMSAGTWCCOMMON-1.30.00.bin
- SQMSASQL-1.30.00.bin

Example, for SQL SA (including Ovo SA and TeMIP fault Sa for temip\_sc\_complete\_install.sh):

```
root# cd $TEMIP_SC_HOME
root# unzip /kits/SQLSATKSAMPLE.zip
root# cd $TEMIP_SC_HOME/ServiceAdapters/Sql/v1_3/<Your SQL SA
Kit>_v1_0/bin
root# ./temip_sc_complete_install.sh
```

Do not recreate/configure the SA manually using temip\_sc\_configure. The following migration steps will allow you to retrieve your previous SA configuration.

### Note:

- **Initial Query:** If you defined an Initial Query for your SA you have to update your SA property file located under your new installed 'properties' directory under \$TEMIP\_SC\_HOME/ServiceAdapters/Sql/v1\_3/<Your\_SQL\_SA>\_v1\_0/properties.
- For **OVSD**, if you do not use the default web-api.jar do not forget to update it:

```
root# cd $TEMIP_SC_HOME/ServiceAdapters/OvSd/v1_3/lib
```

```
root# mv web-api.jar web-api-sp5.jar
root# mv web-api-sp9.jar web-api.jar
```

## 7.6 Reporting Migration

In some cases specific universes developed on V1.2 must be migrated. Aggregated indicators will remain valid but raw information must be migrated.

### 7.6.1 Main DB structure changes

This section provides high level description of the DB changes impacting the reporting. In a V1.3 scope these information are hidden by the provided strategies. They should only be used if you do not plan to rebuild your universe using the new strategies as described in V1.3 user documentation.

#### 7.6.1.1 Parameter split according to their customer dependence

In V1.2 all parameters of a given SD or SCD were stored in a same set of tables (from raw data to yearly aggregation level). In V1.3, customer dependant parameters are stored in specific tables not shared with the customer independent tables. These two set of tables are still available from raw details up to yearly aggregation level.

Customer dependant views and tables are named `*_CD_*` while the `*_CI_*` pattern identifies customer independent parameters.

In V1.2 dynamic tables were identified by fixed prefixes and suffixes:

- `SCI_*` for performance measures
- `CVI_*` for compliance measures
- `*_V` for aggregated data
- `*_DAT` for raw data

In V1.3 due to the parameter split described above the suffixes become:

- `*_CI_V` for customer independent aggregated data
- `*_CD_V` for customer dependent aggregated data
- `*_CI_DAT` for customer independent raw data
- `*_CD_DAT` for customer dependent raw data

#### 7.6.1.2 Table and columns naming with IDs

In V1.2 the table identifier between suffix and prefix was built with the SC and SCD names potentially truncated and numbered to ensure unicity and compliance with the maximum number of characters supported by oracle. The same way, dynamic columns were named according to the parameter and enumerate names.

In V1.3 these names based identifier are replaced by IDs to be able to localize names and labels without any restriction induced by the character set supported to name oracle tables and columns. These IDs are translated into label when the V1.3 strategies create BO objects.

For a manual migration it is however important to understand how a table is related to a specific SD/SCD or how a columns refers to a parameter: In each involved dimension (SD\_AND\_SCD\_DIM, PARAMETER\_DIM, CVL\_PARAMETER\_DIM and ENUM\_DIM) a column named `gn_hash_id` stores the ID reserved for that specific entry to name relative tables (for SD\_AND\_SCD\_DIM) or relative columns (for the 3 other dimensions). These IDs are right padded with '0' up to 9 digits.

For example:

Table named SCI\_000002456\_CI\_V stores all measures relative to customer independent parameter of the SD having gn\_hash\_id equal to 2456.

The same way a column named P\_00000342 will store values of the parameter having gn\_hash\_id equal to 342.

## 7.6.2 Migrating aggregated data

For aggregated data the V1.3 engine provides a backward compatible view: this view will have table name and column names strictly identical to the V1.2 naming schema (based on names). As such, migration is not mandatory. However this view does a join between \_CI\_ and \_CD\_ dedicated tables to provide as in V1.2 all parameters in a unique view whatever their customer type.

---

### Note

---

If only customer independent parameters are available for a given merge key (based on time and instances) the DM\$CUSTOMER\_REF column will be NULL.

---

Whenever possible, if your parameter for a SD or SCD are only customer dependent (or only customer independent) it is better to update your BO object in an existing universe and change their query to target the appropriated \_CI\_ or \_CD\_ view with the new naming. This will not affect the existing BO contexts.

The ideal solution for performance and future compatibility is to migrate the aggregated data to the V1.3 structure and not use the backward compatible view. This is similar to the raw data migration described below.

## 7.6.3 Migrating raw data

For raw data no backward compatible view is provided as row data is in V1.3 defined down to the timestamp and not only the time\_ref which would lead to big merge and data election operations in case of \_CD\_ and \_CI\_ merge.

For raw data the exiting BO class must be split into two classes: one for customer dependent parameters and the other for customer independent parameters. The goal is to migrate from the BO object defined in your universe to the BO objects as they would have been defined by the new strategy.

## 7.6.4 Example of migration paths

It can be a long and painful process to rename all your objects or at least retrieve their query definition by manually getting their hash values from the DB. Two major migration paths are efficient:

- If you have only few reports with few indicators simply create a new version of your universe with the V1.3 strategies (this only if your existing context are not too complicated as you will have to rebuild them), then update your reports: old objects will be removed from the queries as they do no longer exist in the universe and you will have to insert new object into your query and drag them to the report layout.
- If the specific universe and reports are complex, it is better not to impact already defined objects and contexts. The object names and classes should not be changed to preserve reports. To get the new query of your existing objects you could manually go to the DB and lookup the SD and parameter gn\_hash\_id columns.

A more convenient solution is to load candidate objects from the DB with the V1.3 strategy (in the same universe without the joins or simply in a trash universe just to get the objects). That way you end up with a class organization

and naming very similar to the one you already have in your universe and can copy/paste the queries from the V1.3 to the V1.2. Finally you will have to rename the object's source table that will update the associated context automatically.

## 7.7 Gateway migration

### 7.7.1 Gateway installation

You have to install each Gateway on the SQMV130 platform and complete the installation manually. The configuration phase described in Installation guide must not been done since you will reuse your old V120 configuration.

This has to be done under root account, TEMIP\_SC\_HOME must be set. Install the following subsets first (already done if you have installed one SA):

- SQMSAGTWCOMMON-1.30.00.bin

Note: for the **Script Gateway**, if your script files were located under your old TEMIP\_SC\_HOME you have to copy them under your new TEMIP\_SC\_HOME

### 7.7.2 Complete Script Gateway migration (if any)

For **Script GTW** only:

- Update the temp\_sc\_gtw\_setup file (located under <TEMIP\_SC\_VAR\_HOME\_V130>/Gateways/Script/v1\_3/)
  - Change <platform\_name\_v12> with <platform\_name\_v13>
  - Change “v1\_2” with “v1\_3”
  - Change <TEMIP\_SC\_HOME\_V120> with <TEMIP\_SC\_HOME\_V130>
- If your script files were located under TEMIP\_SC\_HOME, update slmv13\_acquisition\_ScriptGateway\_scripts.xml file (<TEMIP\_SC\_VAR\_HOME\_V130>/Gateways/Script/v1\_3/config):
  - Change <TEMIP\_SC\_HOME\_V120> with <TEMIP\_SC\_HOME\_V130>
  - Change “v1\_2” with “v1\_3”

## 7.8 CM/SG Cluster specific migration steps

### 7.8.1 Prepare the migration

Before starting the migration, it is necessary to:

1. Relocate all SQM V1.2 SP1 package onto one node (all packages should be running).  
In this document, this node will be named: “Primary node”. Other nodes will be named: “Secondary nodes”

**On each node:**

2. Backup the SQM V1.2 SP1 \${TEMIP\_SC\_VAR\_HOME} directory
3. Perform the preparatory operation needed to migrate databases (refer to 7.4 Databases Migration)

**On the primary node:**

4. (Optional) Customize the package creation scripts to reflect the specificities of your Cluster (name of volume groups, name of packages ...). (Refer to the SQM Installation Guide 1.3 - chapter 5.3.1.4 HP-UX MC/SG Cluster installation and configuration)

---

**Important**

---

Be advice that the mount point of the logical volume hosting the TIBCO Repository has changed.

In V1.2 SP1, the mount point was: \$TEMIP\_SC\_VAR\_HOME/dat

In V1.3, the mount point is: \$TEMIP\_SC\_VAR\_HOME/repository

---

5. Stop the probes of all SQM V1.2 SP1 packages

```
root# cd $TEMIP_SC_HOME/cluster/utills
root# stop_SQM_PKG -m -p <monitoring_package>
root# stop_SQM_PKG -m -p <acquisition_package>
...
root# stop_SQM_PKG -m -p <repository_package>
```

## 7.8.2 Stop SQM V1.2 SP1

Before migrating to SQM V1.3 it is necessary to totally stop SQM 1.2 SP1 (platform and kernel). To stop SQM V1.2 SP1, follow above steps:

**On the primary node:**

1. Stop all the SQM packages using stop\_SQM\_PKG on all packages (finish with the repository)

```
root# cd $TEMIP_SC_HOME/cluster/utills
root# stop_SQM_PKG -m -p <monitoring_package>
root# stop_SQM_PKG -m -p <acquisition_package>
...
root# stop_SQM_PKG -m -p <repository_package>
```

**On each node:**

2. Stop the SQM V1.2 SP1 kernel

```
sqmadm> . <SQM V1.2 SP1 TEMIP SC VAR HOME>/temip_sc_env.sh
sqmadm> temip_sc_kernel_stop -killrzd
```

Ensure that the rzd (or rrvd) daemon is no more running.

## 7.8.3 CM/SG Cluster platform migration

Due to the new Tibco 5.3 version used in SQM V1.3, a migration of the platform is required.

**Pre-requisite:** platform and kernel of the SQM V1.2 platform have been stopped.

**On the Primary node:**

1. Perform the platform migration part 1: Migration of the datamart repository (refer to 7.3.2.1 Primary host migration – Part 1)
2. Ensure that all SQM V1.2 SP1 packages are stopped

```
root# cmviewcl -l package
>>> All the SQM packages should be "down" and "halted"
```

If necessary, stop then using the "cmhaltpkg" command.

```
root# cmhaltpkg <package>
```

3. Delete the SQM V1.2 SP1 packages

```

root# cd $TEMIP_SC_HOME/cluster/Utils
root# delete_SQM_PKG -v -p <monitoring package>
root# delete_SQM_PKG -v -p <acquisition package>
...
root# delete_SQM_PKG -v -p <repository package>

```

4. Define the SQM V1.3 packages (refer to the SQM V1.3 Installation Guide - chapter 5.3.1.4)
5. Perform the platform migration part 2: Setup of the V1.3 platform (refer to 7.3.2.1 Primary host migration – Part 2)
6. Start all the SQM V1.3 packages in “norun” mode

```

root# . <SQM V1.3 TEMIP_SC_HOME>/temip_sc_env.sh
root# cd $TEMIP_SC_HOME/cluster/Utils
root# start_SQM_PKG -n -p <monitoring package>
root# start_SQM_PKG -n -p <acquisition package>
root# start_SQM_PKG -n -p <gateway package>
root# start_SQM_PKG -n -p <presentation package>
...

```

7. Perform the part 1 of the data tree migration

```

root# . <SQM V1.3 TEMIP_SC_HOME>/temip_sc_env.sh
root# cd $TEMIP_SC_HOME/migration/v130/scripts
root# ./MigrateDataTree.sh -part1
Would you like enter the EXISTING TEMIP_SC_VAR_HOME
directory:
<SQM V1.2 SP1 TEMIP_SC_HOME>
Would you like enter the NEW TEMIP_SC_VAR_HOME directory:
<SQM V1.3 TEMIP_SC_HOME>
Logfile of ./MigrateDataTree.sh is available in
/var/opt/OV/SQM/slmv13/trace/migretedatatree xxxxx.log
...
DONE ...

```

8. Stop all the SQM V1.3 packages, EXCEPT the repository package (needed for next step)

```

root# cmhaltpkg <monitoring package>
root# cmhaltpkg <acquisition package>
root# cmhaltpkg <gateway package>
root# cmhaltpkg <presentation package>
root# cmhaltpkg <reporting package>

```

9. Perform the platform migration part 4: Import and migrate the repository (refer to 7.3.2.1 Primary host migration – Part 4)

## 7.8.4 First startup of SQM 1.3 monitoring package

Due to changes in SQM V1.3 calculation expression, it is important to correctly perform the first startup of the SQM V1.3 monitoring package.

To perform it, follow these steps:

### On the Primary node:

1. Source the SQM V1.3 environment

```

root# . <SQM V1.3 TEMIP_SC_VAR_HOME>/temip_sc_env.sh

```

2. Ensure that repository is responding

```

root# temip_sc show director -pla <SQM V1.3 platform> -dir
slmonitoring
>>> As the director should not be running, you should
experience timeout errors.

```

However, the command MUST NOT fail on an error indicating that the platform is unknown. Else, start (or restart) the repository package:

```

root# cmhaltpkg <repository package>
root# cmrunpkg -n <primary_node> <repository package>

```



3. Ensure that SQM kernel is running

```
root# temp_sc_show
>>> The Repository, rvd (or rvrd) and JacorbNS should be
running and belong to you. Else start (or restart) the SQM
V1.3 kernel (logged with sqmadm user):
sqmadm> . <SQM V1.3 TEMIP_SC_VAR_HOME>/temp_sc_env.sh
sqmadm> temp_sc kernel start
```

4. If needed, migrate customized calculation expressions (refer to 7.1 Known Migration Limitations – PR 59260)
5. Start the SQM V1.3 monitoring package

```
root# cmrunpkg -n <primary node> <monitoring package>
root# temp_sc stop application -pla <your SQM V1.3 platform>
-dir slmonitoring -app SLOM -force
```

---

#### Note

---

As the SPDM first initialization is long (starting in synchronization mode), the SLOM won't be able to be correctly initialized for this first time. So it is not recommended to start it.

---

6. Wait for the end of the initialization of the “slmonitoring” director. All application should have started successfully and the SPDM should have finished its internal updates and resume its activity (refer to the application logs)
7. Start the SLOM application

```
root# temp_sc start application -pla <your SQM V1.3
platform> -dir slmonitoring -app SLOM
```

8. Perform the part 2 of the data tree migration

```
root# stop_SQM_PKG -m -p <monitoring package>
root# temp_sc stop application -pla <your SQM V1.3 platform>
-dir slmonitoring -app SRM
root# cd $TEMIP_SC_HOME/migration/v130/scripts
root# ./MigrateDataTree.sh -part2
Would you like enter the EXISTING TEMIP SC VAR HOME
directory:
<SQM V1.2 SP1 TEMIP SC HOME>
Would you like enter the NEW TEMIP SC VAR HOME directory:
<SQM V1.3 TEMIP SC HOME>
Logfile of ./MigrateDataTree.sh is available in
/var/opt/OV/SQM/slmv13/trace/migretedatatree xxxxx.log
...
DONE ...
root# temp_sc start application -pla <your SQM V1.3
platform> -dir slmonitoring -app SRM
root# start_SQM_PKG -m -p <monitoring package>
```

## 7.8.5 Migrate secondary nodes

### Pre-requisite:

- SQM V1.3 setup has been run on the Primary node.
- SQM V1.2 SP1 kernel should not be running on Secondary node (especially the rvd or rvrd daemons)

To migrate a secondary node, perform the following steps:

### On the Primary node:

1. Copy the “platform description” onto the secondary node to migrate

```
root# cd $TEMIP_SC_HOME/tmp
root# rcp platform_desc.cfg <secondary_node>:`pwd`
```

2. Stop all the SQM V1.3 packages (you may encounter errors as some application may not be running)

```
root# cmhaltpkg <monitoring_package>
root# cmhaltpkg <presentation_package>
...
```

3. Start the repository package

```
root# cmrunpkg -n <Primary_node> <repository_package>
```

**On the Secondary node:**

4. Set the “TEMIP\_SC\_HOME” environment variable

```
root# export TEMIP_SC_HOME=<SQM V1.3 TEMIP_SC_HOME>
```

5. Ensure that the “ORACLE\_HOME” environment variable is correctly set

6. Deploy the SQM V1.3 platform

```
root# cd $TEMIP_SC_HOME/setup/bin
root# ./temip_sc_setup -all -NI -force
```

7. Perform the part 1 of the data tree migration

```
Root# cd $TEMIP_SC_HOME/migration/v130/scripts
Root# ./MigrateDataTree.sh -part1
Would you like enter the EXISTING TEMIP SC VAR HOME
directory:
<SQM V1.2 SP1 TEMIP SC HOME>
Would you like enter the NEW TEMIP SC VAR HOME directory:
<SQM V1.3 TEMIP SC HOME>
Logfile of ./MigrateDataTree.sh is available in
/var/opt/OV/SQM/slmv13/trace/migretedat/tree xxxxx.log
...
DONE ...
```

---

**Note**

---

You may encounter errors while trying to access some UI files. You can ignore them.

---