

## SOFTWARE RELEASE DOCUMENT (SOFTDOC)

Product:	Shadowbase Compare for SQL
Release:	Gravic Version 6.101 HP NonStop Shadowbase: T1122-AAA (SB Repl/Guardian)
Release Date:	November 12, 2014
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File Name:	IPM6101-SQL COMPARE.doc

**NOTE:** Release 6.101 is a full release of HP NonStop Shadowbase and includes a complete set of product files for all HP NonStop components. This softdoc applies to the HP Shadowbase Compare for SQL. Other softdocs document the releases for:

- HP Shadowbase Audit Reader,
- HP NonStop Shadowbase Guardian replication, and
- HP NonStop Shadowbase OSS replication components.

You are advised to reference those other softdocs for the specific changes related to those specific components.

**NOTE:** This softdoc covers new features and corrected problems for Shadowbase for H06 and J06 Guardian NonStop operating system versions. This softdoc is available in an Adobe PDF file (.PDF). Softdoc files are named IPMnnnn (where nnnn is the Shadowbase version number).

**NOTE:** This document is a cumulative softdoc that contains the release Notes for both Version 6.100 and Version 6.101.

**NOTE:** HP Shadowbase Compare for SQL internally uses the nomenclature “CS-SQL-COMPARE” to reflect its original development roots. Hence, you may notice that some examples show commentary reflecting that name.

## **Table of Contents**

SOFTWARE RELEASE DOCUMENT (SOFTDOC).....	1
Table of Contents .....	2
Special Notes for Version 6.101 .....	3
Changes in Release 6.101 .....	4
New Features In Release 6.101 since Release 6.100 .....	4
Problems Fixed .....	4
New Features Description.....	4
Compare Remote Agent.....	4
New and Modified Commands .....	6
PAUSE Command .....	6
STOP Command .....	6
TARGET ADDRESS Command.....	6
WHERE Command.....	7
New and Modified TACL Parameters .....	7
PORT TACL Parameter.....	7
MXPORT TACL Parameter .....	8
Installation Instructions (Shadowbase Compare for SQL) .....	8
Known Problems Remaining .....	9

### ***Special Notes for Version 6.101***

There are no special Notes for the initial release of HP Shadowbase Compare for SQL.

## ***Changes in Release 6.101***

### **New Features In Release 6.101 since Release 6.100**

- 1) TCP/IP based remote agents are now available for both SQL/MP and SQL/MX. For more information, see the [COMPARE REMOTE AGENT](#) section below.
- 2) Several commands were added or updated. See the [NEW AND MODIFIED COMMANDS](#) section for details.

### **Problems Fixed**

There are no HP Shadowbase Compare for SQL problems fixed in release 6.101. This is the initial release of the product.

## ***New Features Description***

### **Compare Remote Agent**

Remote agent functionality has been added to the product to support comparison across nodes without the need for Expand networking and to allow the comparison of remote SQL/MX tables without importing the remote catalogs into the local system catalog. This also allows comparison of SQL/MX tables in a business continuity/Disaster Recovery architecture with identical catalog names on each node. To use the HP NonStop Shadowbase Compare for SQL Remote Agent, a TCP/IP connection between the systems is required.

To use the remote agent, proceed as follows:

1. Install HP Shadowbase Compare for SQL/MX or SQL/MP on the local system where you want to initiate the compares and view the result. The Remote Agent for SQL/MX or SQL/MP must be installed on the other system (the remote system). The *HP Shadowbase Compare for SQL* manual has more details on the installation of the components used by the product.

Note: there is a separate Remote Agent for SQL/MX and SQL/MP. Both may be installed on the same system to allow comparison of both types of tables. During the installation process for the Remote Agent, you will be asked to specify a TCP/IP port that will be used by the Remote Agent to listen for connections from the local system. If you are installing both remote agents, you should use a different port for each agent.

2. On the local system, you need to specify the port the Remote Agent is listening on by setting the TACL parameter PORT (for SQL/MP compares using the remote agent) or the MXPORT (for SQL/MX compares using the remote agent). Two different PARAM names were chosen to allow both SQL COMPARE for

SQL/MP and for SQL COMPARE for SQL/MX to be used without having to change environment settings.

For example, if the SQL/MP remote agent was configured to use port 1820 (the default port) and the SQL/MX remote agent was configured to use port 1821, you would use the following TACL PARAM commands:

```
PARAM PORT 1820  
PARAM MXPORT 1821
```

3. Run SQLCMPE or SQLCMPMX on the local system where the main product is installed. Note: When using the Remote Agent the SOURCE database is always the local database and the TARGET database is the database on the remote system. To reverse this frame of reference for the comparison operation, reverse the systems where you install the components.
4. Specify the remote system to use using the TARGET ADDRESS command:

```
TARGET ADDRESS <IP-address>
```

The IP-address given can be either a hostname (if hostname resolution through a hosts file or a DNS service is enabled) or an IP address, for example 192.54.64.180.

NOTE: The TARGET ADDRESS always has to be set before a target table name is given.

NOTE: To switch off the Remote Agent use “TARGET ADDRESS NONE”.

A connection to the remote agent is established when the TARGET ADDRESS command is issued. If the command completes without an error message, a connection has been successfully completed with the remote agent and the remote agent is ready to accept requests.

5. Use the “TARGET <tablename>” command to specify the target table. Instead of accessing the database table through Expand, Compare now uses the TCP/IP connection with the Remote Agent to retrieve catalog and data information from the remote node. All commands for comparing tables work the same way as they do when not using a remote agent.

When comparing SQL/MX tables, the catalog name on the remote system may be the same as on the local system.

## ***New and Modified Commands***

### **PAUSE Command**

The PAUSE command has been added to pause compare processing after a specified number of comparison messages or lines are reported. If the PAUSE command or the STOP command has not been entered, the compare will run to completion regardless of the number of mismatches. The syntax is:

```
PAUSE <n> MESSAGES  
PAUSE <n> LINES
```

Output to the screen will be paused after the specified number of differences have been reported or the specified number of lines have been printed to the terminal. The tool will then prompt with the following message:

```
PAUSE (c = continue, x = abort)>
```

If you press *c* or *C* the comparison will be continued. If you press *x* or *X* the compare operation will be stopped and Compare will be available for new commands.

This command is similar to the STOP command (see below).

### **STOP Command**

The STOP command has been added to stop compare processing after a specified number of comparison difference message or lines are reported. If the PAUSE command or the STOP command has not been entered, the compare will run to completion regardless of the number of mismatches. The syntax is:

```
STOP <n> MESSAGES  
STOP <n> LINES
```

The Compare process will be stopped without prompting after the specified number of differences have been reported or the specified number of lines have been printed to the terminal. The CS-SQL-COMPARE prompt will come back.

This command is similar to the PAUSE command (see above).

### **TARGET ADDRESS Command**

Specifies the target IP address used to connect to the remote agent or clears the active target address. The syntax is:

```
TARGET ADDRESS {<IP-address>}  
              {NONE}
```

Compare will connect to the remote agent specified by the <IP-ADDRESS>. Compare will use the remote agent to access the target table instead of accessing the table directly across Expand. <IP-ADDRESS> can either be a dotted ip address (127.0.0.1) or a host name. Specifying NONE causes the connection to be closed.

Note: A HP Shadowbase Compare for SQL Remote Agent must be installed on the remote node to enable this command.

## WHERE Command

The SQL clause “<column name> IS NULL” is now supported in the WHERE command. The new syntax for the WHERE clause is:

```
WHERE (<where clause>)  
  
<where clause> can be:  
<column name> = <literal>  
<column name> <> <literal>  
<column name> < <literal>  
<column name> <= <literal>  
<column name> > <literal>  
<column name> >= <literal>  
<column name> IS NULL  
<column name> LIKE <literal> { ESCAPE <escape char>} { TERMINATE  
  <terminate char> }  
NOT ( <where clause> )  
<where clause> AND <where clause>  
<where clause> OR <where clause>
```

## New and Modified TACL Parameters

### PORT TACL Parameter

Initial Version	Changed Version	Values Default	Minimum	Maximum	Alter
6.101		1820	1	65535	No

The PORT parameter is used by Compare for SQL/MP to specify the TCP/IP port number used by the SQL/MP Remote Agent. PORT must match the TCP/IP port number that was configured for the remote agent when it is installed. The default value is 1820.

## MXPORT TAQL Parameter

Initial Version	Changed Version	Values Default	Minimum	Maximum	Alter
6.101		1821	1	65535	No

The PORT parameter is used by Compare for SQL/MP to specify the TCP/IP port number used by the SQL/MP Remote Agent. PORT must match the TCP/IP port number that was configured for the remote agent when the it is installed. The default value is 1820.

### ***Installation Instructions (Shadowbase Compare for SQL)***

1) Transfer the HP Shadowbase Compare for SQL installation files to the host system using FTP or any other file transfer product capable of transferring ASCII and binary files. Binary transfer the SQLCMPR file from your PC (if you obtained the files from a Gravic FTP site) or DVD. Then ASCII transfer the OINSTARX, OINSTLMP, OINSTLMX, and OINSTLRA files from the same location.

2) To begin the installation process, obey the OINSTARX, OINSTLMP, OINSTLMX, and OINSTLRA files to unpack the installation files for the desired HP Shadowbase Compare for SQL component(s):

OBEY OINSTARX to unpack the installation components for the SQL/MX Remote Agent.

OBEY OINSTLMP to unpack the installation components for the SQL/MP Compare program, SQLCMPE.

OBEY OINSTLMX to unpack the installation components for the SQL/MX Compare program, SQLCMPMX.

OBEY OINSTLRA to unpack the installation components for the SQL/MP Remote Agent.

3) Follow instructions in the Installation section of the ***HP Shadowbase Compare for SQL Manual***. Each component has an installation INI file that must be edited with the desired system specific settings before the corresponding installation program is run.



## Known Problems Remaining

- 1) Negative intervals with absolute values greater than 69535 days are not supported by SQLCMPE. Attempting to compare tables including these values will result in a SQL Error -8425 during fetch of cursor.
- 2) ON END EQUAL and ON END NOT EQUAL processing will not occur if ON END processing is also specified.
- 3) Under certain conditions, the options supplied for ON PROGRESSINFO may not occur.

**\*\*\* *End of Document* \*\*\***