

## SOFTWARE RELEASE DOCUMENT (SOFTDOC)

Product:	HPE Shadowbase Compare for SQL
Release:	Gravic Version: 6.800 HPE NonStop Shadowbase: T1122H06-ABB (SB Repl/Guardian)
Release Date:	February 20, 2023
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File Name:	IPM6800-SQL COMPARE.pdf

**VERY IMPORTANT: Due to licensing changes, existing Shadowbase installations will require a new license file in order to install and run Version 6.800. This is true for any Shadowbase upgrade when the prior release is before Version 6.700 and the new release you plan to install is version 6.700 or later.**

**Contact the HPE License Manager to request a new license file <[license.manager@hpe.com](mailto:license.manager@hpe.com)>. DO NOT INSTALL Shadowbase Version 6.800 (or later) software until a new license file has been received.**

NOTE: This release contains updated software for HPE Shadowbase Compare for SQL for the HPE Integrity Nonstop X, Virtualized NonStop, and HPE Integrity Nonstop i Servers.

NOTE: If this is a TCD delivery, please see [NOTE FOR TCDs](#) for TCD delivery information.

NOTE: This softdoc applies to the HPE Shadowbase Compare for SQL component. Other softdocs document the releases of the other components in T1122H06, including:

- HPE Shadowbase Audit Reader,
- HPE Shadowbase Enterprise Manager,
- HPE NonStop Shadowbase Guardian replication, and

- HPE NonStop Shadowbase OSS replication.

You are advised to reference those other softdocs for the changes related to those specific components of T1122H06.

**NOTE:** This softdoc covers new features and corrected problems for Shadowbase Compare for HPE Integrity NonStop i servers (H06 and J06 Guardian NonStop) and HPE Integrity NonStop X/Virtualized NonStop servers (L06 Guardian NonStop).

This softdoc is available in an Adobe PDF file (.PDF). Softdoc files for SQL Compare are named IPMnnnn-SQL COMPARE.pdf (where nnnn is the Shadowbase version number).

**NOTE:** HPE 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.

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## ***Disclaimer***

We are distributing this communication in an effort to bring important information to the attention of users of the affected products. We recommend that all users determine the applicability of this information to their individual situations and take appropriate action. We do not represent or warrant that this information is necessarily accurate or complete for all user situations and, consequently, we will not be responsible for any damages resulting from the user's use or disregard of the information provided. To the extent permitted by law, we disclaim all representations and warranties, whether express, implied, statutory, or otherwise, including the warranties of the merchantability, fitness for a particular purpose, title, and non-infringement.

We expect customers of the Shadowbase product suite to “stay current” on Shadowbase releases. This means that you, the customer, should periodically upgrade your Shadowbase software to a newer release that is under support before support ends on your current release. For most customers, this means that you will want to upgrade while your release is in ‘ACTIVE’ support. Otherwise, you run the risk of not being able to get full (or even any if the release has gone ‘OBSOLETE’ end-of-service-life) support for the version you are running.

The Shadowbase Software Policy for Software Versions is described here:  
<https://shadowbasesoftware.com/support/shadowbase-software-product-release-and-support-policies/>.

We encourage all customers to periodically review this material and plan for periodic upgrades to their Shadowbase software. Contact Support if you need additional information.

## **Note for TCDs**

**TCD (Temporary Code Delivery)** – A software update delivered via an SPR downloadable from an FTP dropbox. A TCD is an early version, intended for customer testing only (not production usage). A TCD by definition is restricted to certain customers. Note that a “Gravic TCD” is delivered directly from Gravic, not via HPE, but otherwise has the same attributes.

A TCD is provided only to the specified customer for the purposes agreed between the customer and Gravic as to how it will be used. A TCD is provided subject to the following terms and conditions in addition to the existing written license governing the use of Shadowbase:

- A TCD is provided for evaluation and test purposes only for no more than ninety (90) days use, and is not to be used in production systems
- A TCD may not have been fully tested by Gravic, no warranties are implied as to its behavior
- A TCD is delivered directly from Gravic to the customer, it is not available from HPE/SCOUT
- As testing proceeds, iterative TCD deliveries may be necessary as issues are identified/resolved
- A TCD is temporary, after evaluation it is to be withdrawn from use by the customer
- After testing completes, a TCD may or may not subsequently be released as a Shadowbase TCF or otherwise be included in the Shadowbase product line

Please see <https://www.shadowbasesoftware.com/support/shadowbase-software-product-release-and-support-policies/shadowbase-software-release-glossary/> for additional information.

## **Special Notes for Version 6.800**

- 1) As of Version 6.700, customers are required to update their license / SHADPASS files. Shadowbase will not start if an old SHADPASS is used. Contact your HPE Shadowbase account representative for a renewed license.
- 2) The SQL Compare for MX component must be installed in a different subvolume from the SQL Compare for MX Remote Agent to avoid SQL compilation conflicts.

## **Changes in Release 6.800**

This section summarizes the new features and problems fixed since the last General Availability release, Gravic version 6.700 for HPE Integrity NonStop i systems and HPE Integrity NonStop X servers.

- 1) The SQL statements and their explain plans can be saved to an output file while SQL Compare jobs are run. Two commands called EXPLAIN and SQL have been

- added which will toggle this feature on or off (by default these two settings are set to off.) When either EXPLAIN or SQL are toggled ON in a SQL Compare session, the output is logged to a series of log files that start with the name SQCLOG01 and roll to the next sequence (i.e. SQCLOG02) when needed. Note that an early version of this processing had a bug occur when the output file became corrupted (e.g., from a process abend); this led to large numbers of logger processes created, which could exhaust the named process table entries. This issue has been resolved.
- 2) The previous version of SQL Compare had a requirement that “Expand Large Messages” be configured between two NonStop systems in order to compare SQL tables across two systems using Expand to run the table reader process locally on each system where the table resides. That requirement is no longer in effect as of this version. Running SQL Compare over Expand can now be done with any valid Expand connection between two systems. SQL Compare will automatically use the largest IPC format that the Expand connection supports.
  - 3) All column data types as of SQL/MX 3.8.1 are supported by SQL Compare for SQL/MX.
  - 4) The DO actions in the ON command related to repairing tables while SQL Compare runs (DO INSERT(), DO UPDATE SOURCE(), DO UPDATE TARGET(), DO DELETE) are now supported for all SQL/MP and SQL/MX column types.
  - 5) This version resolves a number of internal issues related to the automatic parallelism features. These features allow SQL Compare to break a large table into multiple smaller groups to allow parallel compare threads to process the data. This greatly reduces overall run time, albeit at a higher cpu utilization than a single compare thread would use. The most common (and probably the most efficient) configuration will generally be when one compare thread is used per table partition. This is recommended as a starting point for processing.

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

- 1) Transfer the HPE 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 RINSTARX, RINSTALL, RINSTLMX, and RINSTLRA files from the same location.
- 2) To begin the installation process, run the RINSTARX, RINSTALL, RINSTLMX, and RINSTLRA files to unpack the installation files for the desired HPE Shadowbase Compare for SQL component(s):

RUN RINSTARX to unpack the installation components for the SQL/MX Remote Agent.

RUN RINSTALL to unpack the installation components for the SQL/MP Compare program, SQLCMPE.

RUN RINSTLMX to unpack the installation components for the SQL/MX Compare program, SQLCMPMX.

RUN RINSTLRA to unpack the installation components for the SQL/MP Remote Agent.

3) Follow instructions in the Installation section of the *HPE 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) SQL/MX schema and catalog names need to be surrounded by quotes and must match the configured names' case exactly. For example, to match the table *MyCat.MySchema.MyTable*, you need to specify it as "MyCat"."MySchema".MyTable or "MyCat"."MySchema"."MyTable". You cannot use MyCat.MySchema.Mytable (no quotes) or "mycat"."myschema".MyTable (capitalization does not match).

2) Since the TCP/IP remote agent relies on the NonStop LISTNER program to establish connections between the client and server processes, certain settings such as TRGCPUS and CPULIMIT are ignored since LISTNER controls them. It is expected that a future version of SQL Compare will employ a custom listener program which will be able to control these settings.

3) The DO UPDATE SOURCE FROM SOURCE and DO UPDATE TARGET FROM TARGET actions for the ON command are not supported in this version. Use DO UPDATE SOURCE() or DO UPDATE TARGET() instead.

4) The CONCURRENCY setting values higher than 1 are not supported in this version. Use values 0 or 1 instead.

5) For long SQL/MX floating point column values, the precise values of the last digits are unpredictable when being inserted or selected from a table. If SQL Compare attempts to compare these values, it may result in unexpected behavior depending on how the MX engine provides the values to SQL Compare. Hence, compares of high-precision floating point columns may yield differing results across runs. A case has been opened with HPE regarding this issue.

6) For SQL/MX INTERVAL MINUTE TO SECOND key column values longer than 99999999:59 (either positive or negative), SQL Compare will fail if it attempts to process a mismatch on this row.

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