

## SOFTWARE RELEASE DOCUMENT (SOFTDOC)

Product:	Shadowbase
Release:	Gravic Version 6.611 HP NonStop Shadowbase: T1122-AAU (SB Repl/Guardian)
Release Date:	November 30, 2021
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NOTE: If this is a TCD delivery, please see [NOTE FOR TCDs](#) for TCD delivery information.

NOTE: This softdoc covers new features and corrected problems for Shadowbase for H, J, and L series 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 softdoc applies to the HPE NonStop Shadowbase Replication for Guardian component. Other softdocs document the releases of the other components in T1122H06, including:

- HPE Shadowbase Audit Reader,
- HPE Shadowbase Enterprise Manager, and
- HPE Shadowbase Compare for SQL.

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

NOTE: **Supported Release Version Updates (RVUS):** This softdoc applies to all currently supported database and operating system versions as described by the [Shadowbase Supported Versions Cross-Reference](#). In addition, visit the <http://www.ShadowbaseSoftware.com> web site for the list of supported platforms and databases, and the Shadowbase Software Support Policy for Software Versions by clicking here <https://shadowbasesoftware.com/support/shadowbase-software-product-release-and-support-policies/>.

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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.

## **Mature and Deprecated Features**

This section provides a list of mature features (“*mature features*”) and deprecated features (“*deprecated features*”) for HPE NonStop Shadowbase. Gravic will continue to support *mature features* and will continue to include them in future releases; however, Gravic will not enhance those features further or qualify them on newer versions of operating systems and databases as they become available. If you are using a *mature feature*, Gravic highly recommends moving off the *mature feature* to the suggested replacement approach as soon as possible. New installations should avoid using *mature features*; please discuss this issue with Gravic if you feel you must use a *mature feature*.

Gravic will also continue to support *deprecated features* in the current release. However, Gravic plans to eliminate the deprecated features in a future release and strongly recommends that customers begin the planning and implementation to move off the feature immediately. Contact Gravic if you need assistance in planning your migration.

**Table 1 - Mature Features in HPE NonStop Shadowbase**, below, lists the features that are currently considered ‘mature’ by Gravic, along with the release/date where they were declared mature. Again, please note that the *mature* designation means the feature will not be enhanced and will eventually be deprecated (retired).

**Table 2 - Deprecated Features in HPE NonStop Shadowbase**, below, lists the deprecated features. The deprecated features are no longer being enhanced, and are on a schedule to be retired. The table also contains a column indicating the date of the last release that will contain the deprecated functionality (the last release before this end date will be the last release to contain this functionality). Please note that release plans are subject to change without notice and delivery dates are not guaranteed. However, Gravic currently expects that all general availability releases up to and including the date of the last release will contain the deprecated feature(s).

Please see [Shadowbase Software Product Release and Support Policies](http://www.shadowbasesoftware.com) on [www.shadowbasesoftware.com](http://www.shadowbasesoftware.com) for additional information regarding the Shadowbase Software Support Policy.

**Table 1 - Mature Features in HPE NonStop Shadowbase**

Feature	Description	Mature Release
AUDCOLLN	The original native mode collector, AUDCOLLN is now mature and is being replaced by the new SBCOLL collector. AUDCOLLN will continued to be maintained for critical issues and tested, but will no longer be enhanced with new features and capabilities.	NSB 6.410
CONSTXBQ	A user exit-bound consumer that will process queue file events by use of a mapping file and batches transactions. Consider replicating queue files using the ALLOWQUEUEFILE REPLICATEKEY option along with the CONSTXB user exit-bound consumer instead if transaction batching is needed.	NSB 6.600
Format 1 TMF Audit Trails	While still supported, Gravic recommends that any customers still using Format 1 Audit Trails migrate to Format 2 TMF Audit Trails.	NSB 6.410
ENS2SQL	Tool used to convert Enscribe DDL records to SQL/MP tables, effectively replaced by SBDDLUTL	NSB 6.600

**Table 2 - Deprecated Features in HPE NonStop Shadowbase**

Feature	Description	Deprecated Release	Last Release Date
Non-native Consumer	The non-native version of the consumer (AUDCONS) is deprecated. Customers still using the non-native version of the consumer should immediately begin planning to move to the native version (AUDCONSN).	NSB 6.410 April, 2018	April, 2020
Loader	The original Shadowbase Loader (LOADER) is deprecated. Customers still using	NSB 6.300 May, 2017	May, 2019

	LOADER to load files and tables should immediately begin planning to move to the Shadowbase Online Loader (SOLV).		
<b>SBLINK</b>	The original program used to connect SEM to a NonStop environment, replaced by listener AUDCOM process.	NSB 6.220 May, 2016	NSB 6.320 May, 2017
<b>SBQFILE</b>	Program used in conjunction with replicating Enscribe queue files to target non-queue key-sequenced files, replaced with exact queue file replication.	NSB 6.220 May, 2016	NSB 6.320 May, 2017
<b>SQL92</b>	Protocol used by Shadowbase components between the NonStop and Other Servers, replaced by SQLSBV1.	NSB 6.320 May, 2017	NSB 6.410 April, 2018

### ***Supported Database and Operating System Versions***

The database and operating systems versions supported by HPE Shadowbase can be found on the Gravic Shadowbase website. Please see [Supported Databases and Platforms](#) on [www.shadowbasesoftware.com](http://www.shadowbasesoftware.com) for additional information regarding Shadowbase support for databases and operating systems.

## ***Special Notes for Version 6.611***

- 1) Version 6.611 (T1122H06^AAU) includes several key changes and fixes, along with a roll-up of the prior Version 6.610 patches. See the Problems Corrected and New Features sections for more information.
  
- 2) A full package of the normal release files is included with this release for convenience, and it can be installed without any prerequisite versions of the product. Only a subset of the components are changed from Version 6.610^AAP. Specifically, the following components are changed: the Consumer components AUDCONSN and AUDCONSR, the user exit library component, USRXLIBN, the Queue Manager component, AUDQMGR, and the Collector component, AUDCOLLN. The VPROC version information is updated accordingly for each component that has changed. The other files included in the release are the same as those of Version 6.610^AAP, and are compatible with the updated Version 6.611 components.

## ***Changes in Release 6.611 (since Version 6.610)***

### **Problems Corrected**

- 1) The HPE Shadowbase Consumer used to open target files in 32-bit mode when applying PURGEDATA events to it. This would cause an error 580 (an open failed because the file was oversized and the opener did not specify use of 64-bit primary keys) for certain types of format 2 files that were larger than 4GB. This has been fixed in this version.
- 2) The collector could fail with a “DUPLICATE TRANSID DURING AVL INSERT” error message following a peer consumer failure due to failing to start a transaction (e.g. BEGINTRANSACTION error 98 when running in bi-directional replication mode).
- 3) Under certain rare conditions, replicated data could be “ponged” by AUDCOLLN in a bi-directional environment following multiple successive Collector process restarts, causing data to be replicated back to the source system incorrectly, usually resulting in source database corruption for the re-replicated data.
- 4) When purging the existing restart file in an environment using TRACKTXFILE processing with QMGRS and starting the environment with a start point (time or position) prior to the ending audit position present in the TRACKTXFILE, there was a timing issue that could cause the QMGR process to hang. Once the QMGR outputs the AUDIT DATA PREREAD COMPLETED EMS message, it is past the potential for this hang to occur. The workarounds for this issue were to either purge the TRACKTXFILE (and allow data to potentially be replayed), or to manually stop the QMGR process if it became hung, which would allow it to progress further on a restart.
- 5) A selected undoing delete event with a before length of 0 on an Enscribe Entry Sequenced file encountered during RESOLVLOCKS processing could cause the consumer process to abend. This could occur during the abort of a source transaction which included an insertion of a 0 length record into the entry sequenced file.

### **New Features**

- 1) The HPE Shadowbase AUDCOLLN collector program now supports the ability to specify and control how frequently to call JULIANTIMESTAMP to obtain the current time during processing. A call to JULIANTIMESTAMP will normally occur once for every event that is returned while reading from the audit trail. The TACL parameter SBCOLLSKIPTSCOUNT has been added to allow overriding that behavior.

### **New and Modified TACL Parameters**



## SBCOLLSKIPTSCOUNT

Initial Version	Changed Version	Values	Default	Minimum	Maximum	Alter
6.610			0	0	10000	No

The AUDCOLLN Collector now supports limiting the frequency of calls to JULIANTIMESTAMP during the main processing loop. The TACL parameter SBCOLLSKIPTSCOUNT can be set to indicate the number of iterations to skip calling JULIANTIMESTAMP for, before calling it once more.

Normally, JULIANTIMESTAMP is called to get the current time during each iteration, which will occur each time an event is returned to the collector from the audit reading procedure. The default setting 0 of SBCOLLSKIPTSCOUNT maintains this behavior, and will call JULIANTIMESTAMP each time. Each value set above 0 indicates the numbers of times to skip calling JULIANTIMESTAMP when it would normally be made, before calling it again. This means that if it is set to 1, it will call JULIANTIMESTAMP every other event, rather than every event. Setting it to 9 will cause it to call JULIANTIMESTAMP once every 10 events. More generally, setting it to n will cause it to be called once for every n+1 events.

Increasing the number of skipped events can lessen the cpu “cost” of calling the JULIANTIMESTAMP function in certain customer environments. If a MEASURE PROCESSH measurement taken of the collector shows excessive cpu utilization in the O/S MCPDLL DLL file, consider enabling this parameter in your environment.

An example setting, to have it call JULIANTIMESTAMP once for every 10 events is shown below:

```
PARAM SBCOLLSKIPTSCOUNT 9
```

## ***Installation Instructions (HPE NonStop Shadowbase)***

Shadowbase is now built for HPE NonStop installations using the HPE PAK and UNPAK utilities – refer to the G06.16 and above operating system documentation (or contact Shadowbase Support) for more information. The SBPAK file described below is delivered as a self-extracting file.

1) Binary FTP the SBPAK from your PC (if you obtained the files from a Gravic FTP site) or DVD. If FTP was used, enter the following commands to alter the file code.

For G-based systems:  
FUP ALTER SBPAK, CODE 700

For H-based and J-based systems:  
FUP ALTER SBPAK, CODE 800

For L-based systems:  
FUP ALTER SBPAK, CODE 500

2) To “unpak” the files from the self-extracting SBPAK, enter the following command:

```
RUN SBPAK, *.*.*, VOL <restore volume and subvolume>, LISTALL, MYID
```

Where <restore volume and subvolume> is the location you want the Shadowbase files installed into, e.g. \$DATA.SHADBASE

3) Follow instructions in the Installing Shadowbase on a NonStop System section of the *HPE Shadowbase NonStop Installation and Planning Manual*. You must now run either the INSTALL or ENSINST script.

#### IMPORTANT NOTES ABOUT USER EXITS:

IF YOU HAVE USER EXITS DEVELOPED WITH COBOL, YOU MUST RECOMPILE THE USER EXIT “PROGRAMS” SO THAT THE LATEST VERSION OF USRXLIBO OR USRXLIBN (the native library) IS ADDED TO THE RESULTING OBJECT FILE THAT WILL SUBSEQUENTLY BE INCLUDED IN THE FINAL BIND OR LINK.

AFTER COMPILING THE USER EXITS (IF NECESSARY AS DISCUSSED ABOVE), RUN BINDUSRX, BINDXYPR OR LINKUSRX TO GENERATE THE CUSTOM CONSUMER (AUDCONS OR AUDCONSN). NOTE THAT THIS SHOULD BE DONE AFTER THE STANDARD INSTALL IS RUN.

## Known Problems Remaining

Please see the Software Release Document for Shadowbase Version 6.610^AAP (IPM6610) for a list of known problems remaining.

**[\*\*\*\*\* End of Document \*\*\*\*\*]**