SOFTWARE RELEASE DOCUMENT (SOFTDOC)

Product:	Shadowbase
Release:	Gravic TCF Version 7.002 Nonstop Shadowbase: T1122L70^ABM (SB Repl/Guardian)
Release Date:	June 15, 2026
Copyright Notice:	Copyright Gravic, Inc. 1995 – 2026 (www.gravic.com)
File Name:	IPM7002.pdf

VERY IMPORTANT: Due to licensing changes in Version 6.700, existing Shadowbase installations running versions prior to (earlier than) 6.700 will require a new license file in order to install and run Version 7.001. 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 after (more recent).

Contact the HPE License Manager to request a new license file <license.manager@hpe.com>. DO NOT INSTALL Shadowbase Version 6.700 (or later) software when upgrading from a version prior to Version 6.700 until a new license file has been received.

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 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 Nonstop Shadowbase Replication for Guardian component. Other Softdocs document the releases of the other components in T1122L70, including:

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

You are advised to reference those other Softdocs for the changes related to those specific components of T1122L70.

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 ShadowbaseSoftware.com web site for the list of supported platforms and databases, and the Shadowbase Software Support Policy for Software Versions by clicking here 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: 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.

NOTICE: Each user's experiences will vary depending on its system configuration, hardware and other software compatibility, operator capability, data integrity, user procedures, backups and verification, network integrity, third party products and services, modifications and updates to this product and others, as well as other factors. As a result, the ZDL product does not guarantee that you will not lose any data; all user warranties are provided solely in accordance with the terms of the product License Agreement. Please consult with your supplier and review our License Agreement for more 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 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 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, 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, 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 for additional information regarding the Shadowbase Software Support Policy.

Table 1 - Mature Features in 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 continue 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
ENS2SQL	Tool used to convert Enscribe DDL records to SQL/MP tables, effectively replaced by SBDDLUTL	NSB 6.600
Loader	The original Shadowbase Loader (LOADER) is considered mature for usage with KREP (the key replay feature). Outside of KREP, LOADER should no longer be used and the Shadowbase Online Loader (SOLV) should be used for any loading of files or tables.	NSB 6.300 May, 2017
RDTAPE	Object program called by TACL macro used to restore audit trail file from tape to disk, made obsolete by better audit trail recovery methods.	NSB 7.010 July, 2025

Table 2 - Deprecated Features in 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
SBLINK	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
SBQFILE	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
SQL92	Protocol used by Shadowbase components between the Nonstop and Other Servers, replaced by SQLSBV1.	NSB 6.320 May, 2017	NSB 6.410 April, 2018
Shadowbase Enterprise Manager (SEM)	Windows tool used to monitor Shadowbase environments in a Windows GUI.	NSB 7.000 November, 2024	November, 2026
NSK Data Mapping	Consumer feature for implementing common data transformation operations without a user exit, replaced by SBMAP.	NSB 7.000 November, 2024	November, 2026
Format 1 TMF Audit Trails	While still supported (but limited to HPE's support), Gravic recommends that any customers still using Format 1 Audit Trails migrate to Format 2 TMF Audit Trails as soon as possible.	NSB 7.000 November, 2024	November, 2026
SBPERF	Tool for testing TCP/IP comm connectivity and speeds. Similar features such as BYPASS mode, have been added directly into Shadowbase.	NSB7.010 December, 2024	December, 2026

Supported Database and Operating System Versions

The database and operating systems versions supported by Shadowbase can be found on the Gravic Shadowbase website. Please see Supported Databases and Platforms on www.shadowbasesoftware.com for additional information regarding Shadowbase support for databases and operating systems. Please note that, as the tables show, there may be many more versions and combinations supported by Shadowbase beyond the official list. Contact Support if you need further clarification for specific versions and combinations.

Upgrade Considerations for Version 7.002 (from 7.000 or 7.001)

None.

Special Notes for Version 7.002

1) Version 7.002 (T1122L70^ABM) is based on the Version 7.001 release, and includes a fix for Enscribe Compare. New versions of the SOLV and SOLVNV programs are included in this release for this fix for HPE Integrity Nonstop X (L-Series) only.

2) Version 7.001 (T1122L70^ABK) was based on the Version 7.000 release and includes one fix for the AUDMON program resolving an issue with using certain features when a SHADTYPE file is used for HPE Integrity Nonstop X (L Series).

3) 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. This release includes all programs in the Nonstop Shadowbase Guardian Replication (NS Repl) for HPE Integrity Nonstop X (L Series) and HPE Nonstop Itanium (J Series) components. The VPROC version information is updated accordingly for each component that has changed. The other component files included in the release are the same as those included with Version 7.001.

4) If upgrading from a version prior to 7.000(T1122L70), see the Version 7.000 (IPM7000) Softdoc included along with this release for further information, including additional special notes applicable to the upgrade.

5) This release of Shadowbase includes SBCREATP, a utility for converting SQL/MP schemas into various target SQL formats. The SBCREATP utility is being provided as a ***Shadowbase TCD (Temporary Code Delivery).*** **NOTE**: This utility is made available solely subject to the terms enclosed in this SOFTDOC. Do not use the utility if you do not agree with the terms.

Please note the following:

- This TCD is an early software version, intended for specific customer/partner testing purposes only (not production usage).
- This TCD is provided only to the specified customer/partner for the purposes agreed between the customer/partner and Gravic/HPE as to how it will be used.
- This TCD is Confidential, and is not to be discussed, shared or installed outside of the specified customer/partner facilities/personnel.
- This TCD may or may not subsequently be released as a Shadowbase TCF or otherwise be included in the Shadowbase product line.
- This TCD is provided subject to the above and the following terms and conditions in addition to the existing written license governing the use of Shadowbase software:
  - TCD is provided for evaluation and test purposes, and is not to be used in production systems.
  - TCD may not have been fully tested by Gravic, no warranties are implied as to its behavior or fitness for a particular purpose.
  - TCD is delivered as part of the normal Shadowbase release from HPE/SCOUT.

- TCD is temporary, after evaluation it is to be withdrawn from use by the customer/partner.

For additional information, please see ShadowbaseSoftware.com/Support/Shadowbase-Software-Product-Release-and-Support-Policies/Shadowbase-Software-Release-Glossary/.

NOTE: Usage of this SBCREATP documentation, software and/or validating password(s) and any other documentation, software, and password(s) for Product is only authorized under the terms of a valid end-user or trial license agreement. If you or your company have not paid license and maintenance fees to Gravic, Inc. or an authorized Shadowbase reseller for use of the software product for which this and any other documentation, software or passwords are designed, you may only use the product for evaluation purposes for a limited period of time (up to 60 days). Unless you have executed a written Product usage agreement with Gravic, Inc. or with an authorized Shadowbase reseller, usage of this license file or any other documentation, software or password in this case connotes acceptance by your company of the Shadowbase Confidential Testing and Evaluation Agreement. A review copy of this agreement can be found on the Shadowbase website at ShadowbaseSoftware.com/wp-content/uploads/2015/06/ShadowbaseEvaluAgmt.pdf. In the event that your company is licensing the Product for production use, has paid license and maintenance fees to Gravic, Inc. or to an authorized Shadowbase reseller, and does not yet have a written end-user license agreement with Gravic, Inc. or an authorized Shadowbase reseller, usage of this license file and any other documentation, software and/or password(s) connotes acceptance by you and your company of the terms of the shrink wrap license which can be found at ShadowbaseSoftware.com/wp-content/uploads/2015/06/ShadowbaseTCAgreement.pdf.

Please contact Shadowbase Support if you have any questions.

Changes in Release 7.002 (since Version 7.001)

New Features

None in this release. Please see the Software Release Document for Shadowbase Version 7.000 (IPM7000) for a list of New Features added with Version 7.000.

Problems Fixed

1) Fixed an issue with Enscribe Compare resulting in a trap when attempting to compare more than roughly 2.1 billion records in a single run of Enscribe Compare. This fix comprises changes to the SOLV and SOLVNV programs. Previously, the workaround was to compare larger files in smaller chunks across multiple runs, using key ranges.

Changes in Release 7.001 (since Version 7.000)

New Features

None in this release. Please see the Software Release Document for Shadowbase Version 7.000 (IPM7000) for a list of New Features added with Version 7.000.

Problems Fixed

1) AUDMON will no longer fail when using a SHADTYPE file and BASE24, ETL Toolkit, or SBMAP processing is enabled.

2) SQL/MX reserved words would not be properly escaped by SOLVMX.

3) SBMAP would not allow the use of reserved words as column names. Column names may now be escaped in SBMAP by surrounding them with curly braces to allow the use of reserved words such as TIME as column names, e.g.:
   T.{TIME} = S.COL2;

Validating Downloaded Files

Gravic provides an SHA1 checksum and the size of the release package (file) in bytes. The purpose of this is so that the user can confirm that the release package they downloaded is valid and free from corruption/tampering.

- For Shadowbase releases for HPE customers, this information is published in the HPE SOFTDOC that corresponds with the specific SPR version of the software. The HPE SOFTDOC for a specific SPR version is available on the HPE SCOUT portal. This information can also be found on the Gravic Shadowbase website here (ShadowbaseSoftware.com/Releases).

- For Shadowbase releases for non-HPE customers, for example Shadowbase releases obtained directly from Gravic (regardless if an HPE TCD release or a direct Gravic licensee release), this information is included in the body of the Gravic email that provides the link to download the software. This information can also be found on the Gravic Shadowbase website here (ShadowbaseSoftware.com/Releases/Gravic/).

All Shadowbase releases are provided as Windows format download files. The user should validate the downloaded release file size by comparing it with the published release file size.

In order to validate the SHA1 checksum of the downloaded file, users can run the following command on a Windows system where the file was downloaded in order to generate the checksum in their own environment:

```
certutil -hashfile <downloaded filename> SHA1
```

Users can compare the certutil-generated checksum value against the published checksum value to make sure they match. Note that any other SHA1 generation tool can also be used to create the checksum value on the downloaded file. The certutil method is just one available option for Windows environments, and is included as part of Certificate Services.

Installation Instructions (Nonstop Shadowbase)

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

1a) 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 H-based and J-based systems:
FUP ALTER SBPAK, CODE 800

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

1b) Optionally (if installing the ZDL product), also binary FTP the SBSYPAK file 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 L-based systems:
FUP ALTER SBSYPAK, CODE 500

2a) 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

Note: Using UNPAK to extract the files instead can result in errors and fail to unpack the files with older versions of UNPAK. Using the RUN command as listed above does not have this issue.

2b) If the SBSYPAK was transferred in step 1b, to "unpak" the files from the self-extracting SBSYPAK, enter the following command:

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

Note: SBSYPAK should be UNPAKed using the same volume and subvolume used to UNPAK SBPAK in step 2a.

3) Follow instructions in the Installing Shadowbase on a Nonstop System section of the ***Shadowbase Nonstop Installation and Planning Manual***. You must now run the INSTALL 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 USRXLIBN (the native library) IS ADDED TO THE RESULTING OBJECT FILE THAT WILL SUBSEQUENTLY BE INCLUDED IN THE FINAL LINK.

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

HPE Release File Structure

If this release is obtained through HPE Scout, the downloaded file is a single zip file that is intended to be extracted on a Windows PC. When the zip file has been extracted, it will create a folder structure on the PC with all of the various pieces of Shadowbase in appropriate folders. This folder structure is as follows:

CONTENTS
Each component's installation files are in a separate directory in the ZIP file or on the product DVD under the directory \T1122L70. This file set contains the following files:

File or Directory	Description
\readme.txt	Readme file for the release.
\SBEnterpriseManager	Directory containing the files required to install SEM on a PC.
\TNS-E	Directory containing the installation files for the HPE Integrity Nonstop i versions of NS Repl, SAR, and Compare.
SBAuditReader	Directory containing the installation files for SAR.
SBCompare	Directory containing the installation files for Compare.
SBReplication	Directory containing the installation files for Nonstop Guardian replication.
\TNS-X	Directory containing the installation files for the HPE Integrity Nonstop X versions of NS Repl, SAR, and Compare.
SBAuditReader	Directory containing the installation files for SAR.
SBCompare	Directory containing the installation files for Compare.
SBReplication	Directory containing the installation files for Nonstop Guardian replication.

Known Problems Remaining

None new with this release. Please see the Software Release Document for Shadowbase Version 7.000 (IPM7000) for a list of known problems remaining in the Version 7.000 release series.