

SOFTWARE RELEASE DOCUMENT (SOFTDOC)

Product:	Shadowbase Audit Reader (SAR)
Release:	Gravic Version 6.820 HPE NonStop Shadowbase: T1122L70 (SB Repl/Guardian)
Release Date:	November 22, 2024
Copyright Notice:	Copyright Gravic, Inc. 1995 – 2024 (www.gravic.com)
File Name:	IPM6820-SAR.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 6.820. 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: This release contains updated software for HPE Shadowbase Audit Reader (SAR) for 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 Audit Reader component. Other softdocs document the releases of the other components in T1122L70, including:

- HPE Shadowbase Compare for SQL,
- HPE NonStop Shadowbase Guardian replication, and

- HPE NonStop Shadowbase OSS replication (see T1123).

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

NOTE: This softdoc covers new features and corrected problems for Shadowbase Audit Reader 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 SAR are named IPMnnnn-SAR.pdf (where nnnn is the Shadowbase version number).

NOTE: The Shadowbase Audit Reader internally uses the nomenclature “TP-SPY” to reflect its original development roots. Hence, you will notice that the examples show a “tpspy” prompt, etc.

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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. You can check the support status of all Shadowbase releases here:
<https://www.shadowbasesoftware.com/product-delivery/supported-databases-and-platforms/>.

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 6.820

- 1) As of Version 6.700, customers are required to update their license / SHADPASS files when upgrading from a version before 6.700 to version 6.700 or later. Shadowbase will not start if an old SHADPASS is used. Contact your HPE Shadowbase account representative for a renewed license.

Changes in Release 6.820

This section summarizes the new features and problems fixed since the last General Availability release, version 6.700.

New Features

- 1) New progress reports can be enabled for a running SAR job to show its current location in the audit trail. This can be controlled by setting the PROGRESSINFO option using the following syntax:

```
PROGRESSINFO <progress-setting> [ , <progress-setting> ]* ;  
  <progress-setting> :=  
    ( <progress-records> | <progress-seconds> )  
  <progress-records> :=  
    <num-records> RECORDS  
  <progress-seconds> :=  
    <num-seconds> SECONDS
```

After <num-records> records have been read and processed from the audit trail, or <num-seconds> seconds have elapsed, SAR writes a PROGRESSINFO record to the console. You can set just one option or both the <progress-records> and the <progress-seconds> settings. When just one is set, the progress is displayed when that threshold is met. When both are set, the progress is displayed when the first threshold is met, and the counter/time is reset until the next threshold is hit. You can turn this option off by setting both values to 0. By default this option is turned off. Both RECORDS and SECONDS are limited to 2147483647.

Here is an example of how to set this setting:

```
progressinfo 30 seconds
```

Here is a sample PROGRESSINFO message:

```
Current Time      : 2024-07-12 14:48:32.164941  
Record Type      : PROGRESSINFO  
MAT-File         : \NS2SQL.$AUDIT2.ZTMFAT.AA000234  
MAT-Position     : 234.4365828464
```

```
MAT-Timestamp      : 2024-07-12 13:39:57.404006 (212587565997404006)
Message           : 6907841 records processed in 265.166493 seconds
```

- 2) Update events done on certain large SQL/MX tables will be written to the audit trail as a delete followed by an insert in order to keep the events under the size threshold allowed by TMF and the audit disk processes. These delete/insert events written to the audit trail as the result of a large update are *normally* indistinguishable from actual delete/insert events done on the MX table.

New in SAR for L-series systems, a new flag has been added to the audit event record header for insert and delete events called "Part of update". This flag will be set to 1 when a delete or insert event was actually caused by an update event on the MX table. If the delete or insert event was caused by an actual delete or insert, this flag will be set to 0 instead. This allows SAR users to know whether an delete/insert pair was caused by an update on the MX table, or by an actual delete/insert operation.

This flag will always show value 0 for J-series systems. It is only relevant for L-series.

- 3) For a SAR job running with TRANSSTATS enabled that gets stopped before it reaches its configured ending time, the FILESTATS intervals in the output will only go as far as the actual audit trail time when the job was stopped rather than its configured ending time.

Problems Fixed

- 1) ADD INTERPRETATION would prevent users from issuing SELECT on certain files or tables to filter the results. This has been fixed so that now after running ADD INTERPRETATION, a SELECT can be done to filter the results by file.
- 2) For a SAR job with ADD TRANSACTION in effect, it was impossible to Ctrl+Break out of the running SAR job until it saw an event for the transaction it was looking for. This has been fixed so that now Ctrl+Break will take effect right away.
- 3) Certain very large SQL/MX events would cause SAR to fail when attempting to display them. This issue has been fixed.
- 4) SQL/MX column types VARBINARY and NCHAR VARYING values no longer include unwanted additional bytes past the actual length of the value.
- 5) SQL/MX column types NCHAR and NCHAR VARYING values now follow the TRUNCATE CHAR setting when they are displayed.

- 6) For SAR jobs running with TRANSSTATS enabled, the FILESTATS output would classify single-partition files and tables as "secondary" partitions. They are now referred to properly as "primary".
- 7) Some warnings while running SAR (TPSPY) commands were being logged to the terminal twice. This issue has been fixed.
- 8) In rare cases, TMF ARLIB2 is unable to determine whether or not audit records were generated for files and tables with the DCOMPRESS attribute set and containing data block key compression. In this event, the event is returned with a warning that the record *may be* compressed. These records require special handling if the data file has the DCOMPRESS attribute set, in order to replace the first byte of the audit trail after image returned by TMFARLIB2 with the actual first byte. This replacement was not being performed, resulting in the first byte of the displayed record being corrupted in this scenario for files or tables with DCOMPRESS enabled. This problem has been fixed. Turning DCOMPRESS OFF for audited files is also a workaround.

Upgrade Considerations for Version 6.820 from 6.700

There are no special considerations for upgrading from version 6.700 to version 6.820.

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 HPE Shadowbase releases, 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 (<https://www.shadowbasesoftware.com/releases>).
- For non-HPE Shadowbase releases, 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 (<https://www.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 (Shadowbase Audit Reader)

- 1) Binary FTP the TPSPYR file from your PC (if you obtained the files from a Gravic FTP site) or DVD. ASCII transfer the RINSTALL file.
- 2) To begin the Install process, enter the following at the TACL prompt:

```
RUN RINSTALL
```

The following response will be displayed on the terminal screen. (Details of output will vary depending on your system):

```
$QA SARTEST 976> run rinstall
WARNING: Due to a change in the format of the license file, when moving from a
version of Shadowbase software earlier than version 6.700, to version 6.700 or
later, a new license file is required (note that current license terms are
still valid and remain in force). In this case, contact your Shadowbase sales
representative to request a new license file - do not install Shadowbase
software version 6.700 or later until a new license file has been obtained. If
moving from shadowbase software version 6.700 or later, to a later version, a
new license file is not required.

Please type Y to acknowledge and confirm that the appropriate license file has
been obtained and continue with the installation; otherwise type N to cancel
the installation:
```

Type “Y” at the prompt in order to continue the script:

```
UNPAK - File decompression program - T1255L01 - (2021-03-03)

Archive version: 3
File Mode RESTORE Program - T9074L01 (11MAY2021) (AHH)
(C) Copyright 2015 Hewlett Packard Enterprise Development LP
Drives: (\VIV1.$Y8FP)
System: \VIV1 Operating System: L06 Tape Version: 3
Backup options: NO AUDITED, BLOCKSIZE 8, NO IGNORE, OPEN, PARTONLY OFF,
INDEXES IMPLICIT
*WARNING-7147* Files created and stored via OSS and SQL/MX objects are not
supported.
Restore time: 24Jun2022 15:44 Backup time: 4Apr2022 13:14 Page: 1

Tape: 1 Code EOF Last modif Owner RWEPT Type Rec B1
$QA.SARTEST
INSTALL 500 150464 4Apr2022 13:14 255,5 NCNC
INSTINI 101 662 4Apr2022 13:12 255,5 NCNC
INSTXT 101 14532 4Apr2022 13:12 255,5 NCNC

Summary Information

Files restored = 3 Files not restored = 0
$QA SARTEST 977>
```

The TPSPYR file is a self-extracting archive. During the execution of RINSTALL, the files contained within will be unpacked and restored to the system as shown above. The files restored in the step above include a customizing configuration file, INSTINI.

The INSTINI file is provided to allow for installation customization. You will have to edit this file and make the appropriate modifications to set items like the SQL catalog and the program subvolume. This can be done manually prior to continuing the installation process or during the installation process by selecting the appropriate step.

3) Follow the instructions in the Installation section of the Shadowbase on a NonStop System section of the *HPE Shadowbase Audit Reader (SAR) Manual*. After making any necessary system specific changes to INSTINI, the INSTALL script will be run.

HPE Release File Structure

If this release is obtained through HPE Scout, the downloaded file is a single self-extracting zip file that is intended to be run on a Windows PC. When the zip file has extracted itself, 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 self-extracting ZIP file or on the product DVD under the directory \T1122H06-<SPR ID>. This file set contains the following files:

File or Directory -----	Description -----
\readme.txt	This file.
\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.

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