Entire Operations

Entire Operations Version 5.4.3 Release Notes

Version 5.4.3

December 2017

This document applies to Entire Operations Version 5.4.3 and all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

Copyright © 1988-2017 Software AG, Darmstadt, Germany and/or Software AG USA, Inc., Reston, VA, USA, and/or its subsidiaries and/or its affiliates and/or their licensors.

The name Software AG and all Software AG product names are either trademarks or registered trademarks of Software AG and/or Software AG USA, Inc. and/or its subsidiaries and/or its affiliates and/or their licensors. Other company and product names mentioned herein may be trademarks of their respective owners.

Detailed information on trademarks and patents owned by Software AG and/or its subsidiaries is located at http://softwareag.com/licenses.

Use of this software is subject to adherence to Software AG's licensing conditions and terms. These terms are part of the product documentation, located at http://softwareag.com/licenses/ and/or in the root installation directory of the licensed product(s).

This software may include portions of third-party products. For third-party copyright notices, license terms, additional rights or restrictions, please refer to "License Texts, Copyright Notices and Disclaimers of Third-Party Products". For certain specific third-party license restrictions, please refer to section E of the Legal Notices available under "License Terms and Conditions for Use of Software AG Products / Copyright and Trademark Notices of Software AG Products". These documents are part of the product documentation, located at http://softwareag.com/licenses and/or in the root installation directory of the licensed product(s).

Use, reproduction, transfer, publication or disclosure is prohibited except as specifically provided for in your License Agreement with Software AG.

Document ID: NOP-ONOPRELNOTES-543-20191101

Table of Contents

1 About this Documentation 1
- Document Conventions 2
- Online Information and Support 2
- Data Protection 3

2 Entire Operations Version 5.4.3 Release Notes 5
- Supported Operating Systems 7
- Supported Browsers 7
- Prerequisites for the Mainframe 7
- Prerequisites for UNIX 8
- Prerequisites for Windows GUI Client 9
- Special Considerations 9
- Platforms and Required Middleware 9
- Compatibility and Migration 10
- Code Page Setting 12
- Solved Problems 13
- Replaced User Exit Parameter Lists 13
- SYSOUT not Truncated with Old Entire System Server Version 13
- New and Changed Features 13

1 About this Documentation

- Document Conventions 2
- Online Information and Support 2
- Data Protection 3

Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
`Monospace font`	Identifies service names and locations in the format *`folder.subfolder.service`*, APIs, Java classes, methods, properties.
`Italic`	Identifies: Variables for which you must supply values specific to your own situation or environment. New terms the first time they occur in the text. References to other documentation sources.
`Monospace font`	Identifies: Text you must type in. Messages displayed by the system. Program code.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
|	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the | symbol.
[ ]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [ ] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

Online Information and Support

Software AG Documentation Website

You can find documentation on the Software AG Documentation website at **http://documentation.softwareag.com**. The site requires credentials for Software AG's Product Support site Empower. If you do not have Empower credentials, you must use the TECHcommunity website.

Software AG Empower Product Support Website

If you do not yet have an account for Empower, send an email to empower@softwareag.com with your name, company, and company email address and request an account.

Once you have an account, you can open Support Incidents online via the eService section of Empower at **https://empower.softwareag.com/**.

You can find product information on the Software AG Empower Product Support website at **https://empower.softwareag.com**.

To submit feature/enhancement requests, get information about product availability, and download products, go to **Products**.

To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the **Knowledge Center**.

If you have any questions, you can find a local or toll-free number for your country in our Global Support Contact Directory at **https://empower.softwareag.com/public_directory.asp** and give us a call.

Software AG TECHcommunity

You can find documentation and other technical information on the Software AG TECHcommunity website at **http://techcommunity.softwareag.com**. You can:

- Access product documentation, if you have TECHcommunity credentials. If you do not, you will need to register and specify "Documentation" as an area of interest.
- Access articles, code samples, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

Data Protection

Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR). Where applicable, appropriate steps are documented in the respective administration documentation.

2 Entire Operations Version 5.4.3 Release Notes

- Supported Operating Systems 7
- Supported Browsers 7
- Prerequisites for the Mainframe 7
- Prerequisites for UNIX 8
- Prerequisites for Windows GUI Client 9
- Special Considerations 9
- Platforms and Required Middleware 9
- Compatibility and Migration 10
- Code Page Setting 12
- Solved Problems 13
- Replaced User Exit Parameter Lists 13
- SYSOUT not Truncated with Old Entire System Server Version 13
- New and Changed Features 13

These release notes inform you of the enhancements and new features provided with Version 5.4.3 of Entire Operations.

Unless otherwise indicated, the information in these release notes applies to Version 5.4.3:

- for both Entire Operations (NOP) and Entire Operations GUI Client (OGC),
- on all supported platforms.

This document supersedes and replaces the release notes for Entire Operations Version 5.4.1 and Version 5.4.2.

Update Information for Version 5.4.3, October 2019:

- The section *Compatibility Check for System Automation Tools Versions* has been added to these release notes.

Update Information for Version 5.4.3, May 2017:

- The section *SYSOUT not Truncated with Old Entire System Server Version* has been added to these release notes.
- The Entire Operations documentation for Version 5.4.3 provided in Software AG's Empower web site at *https://empower.softwareag.com/* has been revised and updated to include the latest changes since March 2017.

Update Information for Version 5.4.3, March 2017:

- The section *No Umlauts and Special Characters in Condition Names* has been added to these release notes.
- The section *Range Specification on Object List Screens* has been added to these release notes.
- The Entire Operations documentation for Version 5.4.3 provided in Software AG's Empower web site at *https://empower.softwareag.com/* has been revised and updated to include the latest changes since October 2016.

Update Information for Version 5.4.3, October 2016:

- Several Entire Operations features have been corrected or enhanced after the release of Entire Operations Version 5.4.3. These changes were summarized in the Readme files of the cumulative fixes supplied for Version 5.4.3. The Entire Operations documentation for Version 5.4.3 provided in Software AG's Empower web site at *https://empower.softwareag.com/* has now been revised and updated to include these changes.
- The section *Supported Browsers* of these release notes has been updated.
- The section *Prerequisites for Windows GUI Client* of these release notes has been updated.

Supported Operating Systems

Entire Operations Version 5.4.3 supports the following operating systems:

- z/OS,
- z/VSE,
- BS2000,
- UNIX (HP-UX, AIX, Sun Solaris, Linux) and
- Windows (Intel) (managed node only).

Supported Browsers

As of Version 5.4.1, the Entire Operations Entire Operations GUI Client supports the following browsers:

- Mozilla Firefox ESR Version 32 or above

  Only the Extended Support Releases (ESR) of Mozilla Firefox are explicitly supported.
- Microsoft Internet Explorer Version 10 or above.

Prerequisites for the Mainframe

Before you can install Entire Operations on a mainframe system, the following Software AG products must already be installed at your site:

- Adabas Version 8 or above;
- Natural Version 8.2 or above; the Natural installation must include the Software AG Editor component;
- Entire System Server Version 3.5 or above;
- Entire System Server Version 2.1.7 (UNIX and Windows) or above. Note that you require Entire System Server if you intend to run jobs with job type SAP.
- System Automation Tools Version 3.4.4 or above;
- Natural Security (optional);
- Entire Network (optional); this product is required for any kind of multi-CPU constellation where mainframe and/or UNIX and/or Windows partners are involved (non-local);
- EntireX Broker Version 7.2.2 for z/VSE (optional);

- EntireX Broker Version 9 for z/OS (optional);
- EntireX Broker Version 8.1.1 for BS2000 (optional);
- EntireX Broker is required for any kind of multi-machine constellation if one partner is a UNIX system or Windows or different UNIX systems are involved. EntireX Broker is not required if you are running Entire Operations on a UNIX or Windows platform and controlling the job networks on a mainframe system.
- Entire Connection (optional);

  This product is required for importing or exporting data from or to a PC file or a Natural work file on a PC.

The installation procedure for Entire System Server is described in the Entire System Server documentation.

The installation procedure for System Automation Tools is described in the *System Automation Tools* documentation.

Prerequisites for UNIX

Before you can install Entire Operations on a UNIX system, the following Software AG products must have been installed at your site:

- Natural Version 8.3.6 (or above) for UNIX;
- Adabas Version 6.3 (or above) for UNIX.

With Entire Operations Version 5.4.3, the following products will be installed automatically:

- Entire System Server Version 2.1.7 (or above) for UNIX;
- System Automation Tools Version 3.4.4 or above;
- EntireX Version 9.9 (or above) Libraries. The libraries are delivered as a separate component under **Infrastructure** > **Libraries** > **EntireX Libraries** in the Software AG Installer (see the webMethods documentation *Installing webMethods and Intelligent Business Operations Products*).

Prerequisites for Windows GUI Client

Entire Operations GUI Client will run on any Windows platform on which Natural Version 8.3.6 (or above) for Windows runs.

Note: Make sure the machine on which you are going to run the Software AG Installer contains the latest Windows updates. On Windows Version 8.1 and Windows Server 2012R2, the installation will fail if the Microsoft update KB2919355 is missing.

Entire Operations GUI Client Version 5.4.3 requires the following products:

- Natural Version 8.3.6 (or above) for Windows. You can use either Natural Development version or Natural Runtime.

  Entire Operations GUI Client runs on any Windows platform on which Natural Version 8.3.6 (or above) for Windows runs.
- Entire Operations Server Version 5.4.3;
- EntireX Version 9 or above (optional).

Special Considerations

Database ID (DBID) 148 is reserved for Entire System Server and must not be used for any database.

Platforms and Required Middleware

The following products are required to connect the individual platforms:

Online System / Monitor	Job Execution	Connection / Products
mainframe	mainframe (local*)	none
mainframe	other mainframe	Entire Net-Work
mainframe	UNIX	EntireX Broker
mainframe	Windows	EntireX Broker
UNIX	UNIX (local*)	none
UNIX	other UNIX	EntireX Broker
UNIX	Windows	EntireX Broker
UNIX	mainframe	Entire Net-Work

* local means that the Entire Operations online system is installed on the same machine on which jobs are executed.

Combinations are also possible. For example, if you want to install the Entire Operations online system on one mainframe and execute jobs on another mainframe and another UNIX or Windows machine, you would need:

- Entire Net-Work (one for each system to be connected) for connecting to the other mainframe and to UNIX or Windows, and
- EntireX Broker (on one system) for connecting to UNIX or Windows.

Compatibility and Migration

- Support for Previous Versions
- Migrating from Previous Versions
- Compatibility Check for System Automation Tools Versions
- Data Migration
- Application Programming Interface (API) Versions

Support for Previous Versions

Entire Operations Version 5.4. is the official replacement for Entire Operations Version 5.3, or earlier versions. Details of when support for earlier versions will cease can be found in the **Product Version Availability** section of Software AG's Empower web site at ***http://empower.software-ag.com/***.

Migrating from Previous Versions

- No migration is required to upgrade from Entire Operations Version 5.4.2 to Entire Operations Version 5.4.3.
- Direct migration from versions earlier than Entire Operations Version 5.2.1 is possible via the Import/Export utility only.

Compatibility Check for System Automation Tools Versions

Entire Operations Version 5.4.3 requires System Automation Tools (SAT) versions earlier than Version 3.5.1.

Compatibility check constraints are used to enforce valid version combinations:

- At the start of an Entire Operations session on a CUI client (NOP),
- At the start of an Entire Operations session on a GUI client (OGC),
- At the start of the Entire Operations Monitor.

Incompatible versions cause start failures and an error message similar to the following occurs and is written to the SYSOUT file of the Entire Operations Monitor:

```
EOR2598 - SAT Version >= 3.4.1 required for NOP 5.4.3
```

Data Migration

The data migration from Entire Operations Version 5.4.2 to Version 5.4.3 is performed as part of the migration process.

The data migration can be run any time manually by using a Natural batch JCL:

```
LOGON SYSEOR
DMDRIV-P
FIN
```

Internal control records prevent repeating of already completed migration steps.

This following migration steps are only required if you migrate data from an Entire Operations Version earlier than Entire Operations Version 5.4.

To migrate data from Entire Operations Version 5.3.1 to Entire Operations Version 5.4, perform one of the following steps:

1 Unload the old database files and load the new database files by using the Import/Export utility.

  Or:

  Adapt the old Entire Operations System File 1 for use with Entire Operations Version 5.4.3. Some data fields have larger field lengths and some descriptors have been released or added. This update is *not* upwardly compatible to Entire Operations versions below Version 5.4.3.

2 If you want to keep your log data: Adapt the System Automation Tools log file for use with System Automation Tools Version 3.4.4. (a field was added). This update is upwardly com-

patible to System Automation Tools versions below Version 3.3.1 and Entire Operations versions below Version 5.4.1.

Or:

On UNIX: If migration is required, it is performed automatically within the guided installation.

The Entire Operations log file (System File 2, System Automation Tools log file) remains in the same format.

Application Programming Interface (API) Versions

The API versions remain the same as in Entire Operations Version 5.3.1.

Notes:

1. Parameters reserved for future use in a previous Entire Operations version, may be used in Entire Operations Version 5.4.3.
2. Parameters with names like `-NETWORK-VERSION` or `-SYMTAB-VERSION` have been used since Entire Operations Version 5.4.2. Please refer to the descriptions of *Versioning of Job Networks* and *Versioning of Symbol Tables* in the *Concepts and Facilities* documentation.
3. For several APIs, new return codes were added. Please check the description of the *API Routines* in the *User's Guide*.

Only the latest versions of APIs should be used for new development. These are documented in the section *API Routines* in the *User's Guide*. Starting with the next Entire Operations version, older APIs will be supported for the two previous versions only. The existence of an older API routine in the Natural SYSEOR system library does not imply that it is still supported.

Most API routines contain a version number as the seventh character of their name. For example, in this Entire Operations version the Log API is NOPULW9N. The previous version NOPULW8N is still supported for a limited time.

Code Page Setting

Software AG recommends that you run the Natural environments for the Entire Operations Monitor, the Entire Operations character interface and the Entire Operations RPC server with enabled code page support. For the required Natural parameter settings, see the Natural parameters `CFICU` and `CP` described in the Natural *Parameter Reference* documentation.

If code page support is enabled, user exits and Macro JCL defined in Entire Operations can use the Natural system variable `*CODEPAGE` (see the Natural *System Variables* documentation) which determines the current code page for correct code page conversion, for example, with the Natural `MOVE ENCODED` statement.

The Entire Operations monitor tasks log the current code page setting during startup. In the Entire Operations character interface, the current code page setting is shown by the `TECH` direct command (see the *Direct Commands* documentation).

When using the `CFICU` and `CP` parameters, they must be set to the same values for the Entire Operations Monitor, the Entire Operations character interface and the Entire Operations RPC server.

Solved Problems

All solved problems of Entire Operations Version 5.4.2 up to the Cumulative Fix 4 are included in this release.

Replaced User Exit Parameter Lists

The parameter list NOPSYP2A has been replaced by NOPSYP3A.

SYSOUT not Truncated with Old Entire System Server Version

If Entire System Server (NPR) Version 2.1.9 CF2 (or an earlier version) is installed, a SYSOUT line limit defined in the Entire Operations defaults (see the *Administration* documentation) is ignored when SYSOUT is passed from UNIX or Windows to Entire Output Management (NOM). All lines contained in the copied SYSOUT file are processed, lines that exceed the limit are *not* truncated.

The reason for this behavior is that part of the functionality has been implemented in Entire System Server.

New and Changed Features

New and changed features in Entire Operations Version 5.4.3 are summarized in the following section:

- No Umlauts and Special Characters in Condition Names
- Range Specification on Object List Screens
- Support for Event Store of System Automation Tools
- New Job Type Milestone
- Transfer Limit for Files
- New Reports
- Suspend Option for Monitor Functions

- Node Maintenance: Reply-To Address for E-Mails
- TECH Command Shows Installed Hot Fixes
- Job Data sent to Entire Output Management Open Print Option
- New Conditions for Predecessor Jobs in Multiple Subnetworks
- Flexible Escape Character Setting in Sources
- Documentation: Entire Operations System Messages Removed
- Full Display of Symbol Table Names (NOP only)
- User Privileges Not Inherited from Owner SYSDBA (NOP)
- Cross Reference Reports in Batch (OGC only)
- Flexible View of Node List (OGC only)
- Multiple Deletions from a Network Diagram (OGC only)
- Trace Levels for UNIX and Windows Nodes (OGC only)

No Umlauts and Special Characters in Condition Names

Umlauts are no longer allowed for new condition names. In addition, the use of special characters in new condition names is now restricted to the following:

```
-+/§#$_&
```

(Numbers and letters can of course be used as usual.)

Old condition names that contain umlauts and/or any special characters other than the ones listed above are still supported for compatibility reasons.

Notes:

- Global condition names still begin with a plus sign (+).
- Do not use the question mark (?) in new condition names. It is supported for compatibility only.
- The activation escape character, the submit escape character and a period (.) symbol delimiter are still accepted if symbol replacement is allowed for the relevant name fields.

Range Specification on Object List Screens

In the input fields above the objects listed on a screen, you can use asterisk (*) as a wildcard to select a special range of object names. For example: `TEST*` selects all names that begin with TEST and `TE*T` selects all names that start with TE and end with T.

Support for Event Store of System Automation Tools

Entire Operations now supports the event store of System Automation Tools (SAT) which is used to collect events that may occur during a network run. The collected events can then be transferred to an external event management system for further processing and evaluation. This may be useful to identify error situations or monitor the network run in a web-based application.

You can select the type of messages to be written to the event store by using the **Global Messages for Events** function described in the *Administration* documentation.

For detailed information on the event store, refer to the relevant section in the *System Automation Tools* documentation.

New Job Type Milestone

A milestone attribute is now provided to track significant jobs in a network.

For more information, see the description of the fields available to define a job in the *Job Maintenance* section of the *User's Guide*, and the *Event Store Milestones* section in the *Systems Automation Tools* documentation.

Transfer Limit for Files

The new **SYSOUT Line Limit** network option of the **Entire Operations Defaults** function limits the number of lines read when browsing SYSOUT or other files during end-of-job checks.

The line limit applies to all files that are copied from UNIX or Windows to a mainframe platform or passed from UNIX or Windows to Entire Output Management. The new option is described in *Default Setting (2)* (CUI) and *Defaults for Network Options* (GUI), respectively, in the *Administration* documentation.

Prerequisite for the new option is Entire System Server Version 2.1.7 on UNIX or Windows.

New Reports

The following new reports are available:

Report Node Overview
Shows the list of all nodes available with the current Entire System Server and operating system versions installed at your site.

Report Subnetwork Usage
Shows the relationship between a network and a subnetwork.

For more information, see the section *Report Types* in the *User's Guide*.

Suspend Option for Monitor Functions

The **Monitor Task Profile** of the **Monitor Defaults** function (described in the *Administration* documentation) now provides the option to suspend individual monitor functions and disable them until they are assigned again to the Monitor. This can help control network processing during disaster recovery.

For more information, see the section *Using the Monitor Task Profile* in the *Administration* documentation.

Node Maintenance: Reply-To Address for E-Mails

You can now specify a return address for e-mails sent via a node in addition to the e-mail address of the sender. For more information, see the new Reply-To option described in the section *Definition of Nodes* in the *Administration* documentation.

TECH Command Shows Installed Hot Fixes

The `TECH` direct command (described in the *Direct Commands* documentation) now also shows a list of hot fixes if installed at your site.

Job Data sent to Entire Output Management Open Print Option

You can now pass End-of-Job (EOJ) output to Entire Output Management across UNIX and Window execution nodes by using the Entire Output Management Open Print Option (OPO).

New Conditions for Predecessor Jobs in Multiple Subnetworks

For a job with multiple subnetworks, you can now determine whether a predecessor job executes in the primary subnetwork only or in all subnetworks that use the same predecessor.

You can trigger these prerequisite conditions by specifying the new `RCM` and `RCA` parameters as a **Reference** for a job output and input condition, respectively.

Flexible Escape Character Setting in Sources

You can now specify escape characters in Natural source objects and JCLs independent of the job definition.

Documentation: Entire Operations System Messages Removed

The short and long texts of all Entire Operations system messages have been removed from the *Messages and Codes* documentation.

You can use the direct command `HELP` to display the text of a system message: see *System Messages* in the *Messages and Codes* documentation.

Full Display of Symbol Table Names (NOP only)

Symbol names with more than 20 characters are now completely displayed on the screen if you set the new **Symbol list: long fields** parameter as a **Representation** option in your user profile. For more information, see the relevant section in *User Definition* in the *Administration* documentation.

User Privileges Not Inherited from Owner SYSDBA (NOP)

A user with SYSDBA as the current owner no longer inherits administrator authorizations.

Cross Reference Reports in Batch (OGC only)

Cross reference reports can now also be executed in batch mode. For detailed information, see *Command - Object: CrossReferences - Name: SaveToFile* in the section *Using Entire Operations in Batch Mode* in the *User's Guide*.

Flexible View of Node List (OGC only)

The column order in the list view of nodes can now be changed. It is also possible to remove columns from the list view.

For more information, see *Listing all Nodes - List Function* in the section *Definition of Nodes* in the Administration documentation.

Multiple Deletions from a Network Diagram (OGC only)

The master network diagram function now provides the option to remove multiple objects selected for deletion with a single delete confirmation.

Trace Levels for UNIX and Windows Nodes (OGC only)

You can now set the trace levels for UNIX and Windows nodes. For more information, see the relevant section in *Definition of Nodes* in the *Administration* documentation.