

Entire Output Management

Release Notes

Version 3.4.3

October 2018

This document applies to Entire Output Management Version 3.4.3 and all subsequent releases.

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

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Document ID: NOM-ONOMRELNOTES-343-20180929

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1 Release Notes

[Entire Output Management Version 3.4.3 Release Notes \(for NOM and NGC\)](#)

Release Notes for Previous Versions:

[Entire Output Management Version 3.4.2 Release Notes](#)

[Output Management GUI Client Version 3.4.2 Release Notes](#)

[Entire Output Management Version 3.4.1 Release Notes](#)

[Entire Output Management Version 3.3.1 Release Notes](#)

2 About this Documentation

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Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
Monospace font	Identifies service names and locations in the format <code>folder.subfolder.service</code> , APIs, Java classes, methods, properties.
<i>Italic</i>	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.

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These Release Notes inform you of the enhancements and new features provided with Version 3.4.3 of Entire Output Management; they cover the following topics:

Unless otherwise indicated, the information in these Release Notes applies to Version 3.4.3:

- for both Entire Output Management (NOM) and the Output Management GUI Client (NGC),
- on all supported platforms.

Prerequisites for Mainframes (NOM)

Before you can install Entire Output Management on a mainframe computer, the following Software AG products must have been 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 2.1.5 for UNIX/Windows, or above (optional; for UNIX/Windows access);
- System Automation Tools Version 3.4.3 or above;
- Natural Security (optional; required for UTM users under BS2000/OSD);
- EntireX Version 9 for z/OS, Version 8.1.1 for BS2000/OSD, Version 7.2.2 for z/VSE, or above (optional, for multi-CPU support);
- Entire Network (optional, for multi-CPU support);
- Con-nect (optional).

Prerequisites for UNIX (NOM)

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

- Adabas Version 6.3 for UNIX, or above;
- Natural Version 8.3.3 for UNIX, or above;
- Entire System Server Version 2.1.5 for UNIX, or above;
- System Automation Tools Version 3.4.3, or above;
- EntireX Version 9, or above (optional, for multi-CPU support).

Prerequisites for Output Management GUI Client (NGC)

Output Management GUI Client Version 3.4.3 requires the following products:

- Natural for Windows, Version 8.3.3 or above; Development version or Runtime version.
- EntireX Version 9 or above; Development version or Runtime version.
- Entire Output Management Version 3.4.3 (or above) for Mainframes/UNIX.

NGC Versions Supported by NOM

Entire Output Management Version 3.4.3 does not support any Output Management GUI Client version below 3.4.1.

Installation Considerations

The installations considerations for Version 3.4.3 are the same as for Version 3.4.1; see [Version 3.4.1 Release Notes](#).

In addition, see the Fix Explorer in Empower for the latest hot fixes.

Migrating from Previous Versions

A migration of NOM to Version 3.4.3 is possible from Version 3.3.1 or later versions, but not from earlier versions. NGC does not require any migration.

For a detailed migration description, see *Migrating from Previous Versions* in the *Installation and Customization* documentation.

In addition to performing the migration procedure, you have to perform the following:

- The names of parameter data areas and the structures in data areas have changed. Therefore, adapt all Entire Output Management user exits and application programming interfaces to the new names (for example, the `NOMEXnnP` parameter data areas in the library `SYSNOMS`) and the new field formats/lengths (for example, change `+P-SPOOL-ATTRIBUTES-EXTENDED` from `(A/120) DYNAMIC` to `(A) DYNAMIC`) and then recatalog them. Details and examples are provided in the library `SYSNOMS`.

- Recatalog with the new version all your user exits and programs which use Entire Output Management application programming interfaces.
- Under UNIX, adapt the scripts used to run Entire Output Management to suit your requirements. See *Scripts* in the *Installation on UNIX* documentation.
- As of Version 3.4.3, NOM on UNIX is installed using the SAG Installer. This requires that the environment variables `EOM_WORK` and `EOM_ARC` be changed. See *Environment Variables* in the *Installation on UNIX* documentation.

Solved Problems

All solved problems of the previous version are included in this version.

Enhancements and New Features

- [System Defaults](#)
- [Reports](#)
- [Active Reports \(NGC only\)](#)
- [User Profiles \(NGC only\)](#)
- [User Interface - Update Information](#)

System Defaults

System Defaults provides a new field **Retention for printouts in Hold status**, which determines how long printouts in Hold status will be kept in the Entire Output Management database. See *Components of System Defaults* in the *System Administration* documentation.

Reports

Entire Output Management's report identification now processes file pairs residing in UNIX or Windows file systems: an original file containing the print data and an XML file containing meta data which can be transferred to Entire Output Management as well. See *Report Identification for UNIX/Windows Nodes* for details.

Active Reports (NGC only)

The new function *Search Active Reports* combines the definition of filter criteria and the display of the objects which meet the criteria in one dialog, thus improving the search for specific active reports.

User Profiles (NGC only)

The layout of user profiles has been improved to show more clearly the options, access rights and dependencies within the system.

User Interface - Update Information

On object maintenance screens/windows, Entire Output Management now shows when and by whom an object was last modified.

Open Print Option (OPO)

Printer Drivers

The routing of print output to Entire Output Management with direct printing from Windows applications, using the Open Print Option on Windows, is designed to use a specific printer port monitor developed by Software AG.

With Windows 8.1 and Windows Server 2012 R2, Microsoft has introduced a new printer model classified as "V4" with corresponding V4 printer drivers (delivered "in-box" with these Windows versions), which do not support such third-party port monitors.

If you use the above-mentioned feature, it is recommended that you use non-Microsoft V3 printer drivers as supplied by your printer manufacturer.

4 Entire Output Management Version 3.4.2 Release Notes

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These Release Notes inform you of the enhancements and new features provided with Version 3.4.2 of Entire Output Management; they cover the following topics:

Unless otherwise indicated, the information in these Release Notes applies to Version 3.4.2 on both mainframe and UNIX platforms.

Prerequisites for Mainframes

Before you can install Entire Output Management on a mainframe computer, the following Software AG products must have been 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 2.1.4.20 for UNIX/Windows, or above (optional; for UNIX/Windows access);
- System Automation Tools Version 3.4.1 or above;
- Natural Security (optional; required for UTM users under BS2000/OSD);
- EntireX Version Version 9 for z/OS, Version 8.1.1 for BS2000/OSD, Version 7.2.2 for z/VSE, or above (optional, for multi-CPU support);
- Entire Network (optional, for multi-CPU support);
- Con-nect (optional).

Prerequisites for UNIX

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

- Adabas Version 6.1 for UNIX, or above;
- Natural Version 8.3.1.1 for UNIX, or above; the Natural installation must include the Natural Web Interface package and the Software AG Editor component;
- Entire System Server Version 2.1.4.20 for UNIX, or above;
- System Automation Tools Version 3.4.1, or above;
- EntireX Version 9, or above (optional, for multi-CPU support).

Installation Considerations

The installations considerations for Version 3.4.2 are the same as for Version 3.4.1; see [Version 3.4.1 Release Notes](#).

Migrating from Previous Versions

A migration to Version 3.4.2 is possible from Version 3.2.1, 3.2.2, 3.3.1 or 3.4.1, but not from earlier versions.

For a detailed migration description, see *Migrating from Previous Versions* in the *Installation and Customization* documentation.

In addition to performing the migration procedure, you have to perform the following:

- The names of parameter data areas and the structures in data areas have changed. Therefore, adapt all Entire Output Management user exits and application programming interfaces to the new names (for example, the `NOMEXnnP` parameter data areas in the library `SYSNOMS`) and the new field formats/lengths (for example, change `+P-SPOOL-ATTRIBUTES-EXTENDED` from `(A/120) DYNAMIC` to `(A) DYNAMIC`) and then recatalog them. Details and examples are provided in the library `SYSNOMS`.
- Recatalog with the new version all your user exits and programs which use Entire Output Management application programming interfaces.
- Under UNIX, replace the scripts used for customization (see *Customization* in the *Installing and Setting Up Entire Output Management on UNIX Platforms* documentation) with those of the current Entire Output Management version from the `INSTALL` directory.

Solved Problems

All solved problems of Version 3.4.1 are included in this version.

Enhancements and New Features

With Version 3.4.2, all enhancements and new features which were provided with Version 3.4.1 for mainframes - as described in the [Version 3.4.1 Release Notes](#) - are available for UNIX platforms as well.

5 Output Management GUI Client Version 3.4.2 Release Notes

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These Release Notes inform you about Version 3.4.2 of Output Management GUI Client (NGC). This version will run on any Windows platform on which Natural Version 8.3.2 (or above) for Windows runs.

These Release Notes cover the following topics:

Prerequisites

Output Management GUI Client Version 3.4.2 requires the following products:

- Natural for Windows, Version 8.3.2 or above; you can use either the Development version or the Runtime version.
- EntireX Version 9 or above.
- Entire Output Management Version 3.4.2 (or above) for Mainframes/UNIX.

Enhancements and New Features

Version 3.4.2 of the Output Management GUI Client (NGC) supports all enhancements that have been introduced with Version 3.4.2 of Entire Output Management. These enhancements are described in the [Entire Output Management Release Notes](#).

In addition, the following enhancement is available with NGC Version 3.4.2:

- [Distribution Attributes - Layout Definition](#)

Distribution Attributes - Layout Definition

The function to define individual report layouts for addresses of a report has been revised and enhanced.

6 Entire Output Management Version 3.4.1 Release Notes

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Version 3.4.1 is only available for mainframe platforms, but not for UNIX platforms. The next release of Entire Output Management will be available for both mainframe and UNIX platforms again.

These Release Notes inform you of the enhancements and new features provided with Version 3.4.1 of Entire Output Management; they cover the following topics:

Prerequisites for Mainframes

Before you can install Entire Output Management on a mainframe computer, the following Software AG products must have been 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 2.1.4.17 for UNIX/Windows, or above (optional; for UNIX/Windows access);
- System Automation Tools Version 3.4.1 or above;
- Natural Security (optional; required for UTM users under BS2000/OSD);
- EntireX (optional, for multi-CPU support) Version 8.2 or above;
- Entire Network (optional, for multi-CPU support);
- Con-nect (optional).

Prerequisites for UNIX

Not applicable.

Installation Considerations

Entire Output Management Version 3.4.1 uses large buffers (up to 16 KB) to compress records for storage in Adabas, the compression being performed by `NOMCOMPR`. If the Natural `DATSIZE` is exceeded by a call to `NOMCOMPR`, Natural will issue error `NAT0909`. It is therefore recommended that the Natural `DATSIZE` parameter be set to at least 500 (KB) initially.

The parameter `NTLFILE 91` in the Natural parameter module is no longer optional; it must be specified even if you use only a single Entire Output Management data file.

As of Version 3.4.1, the Adabas files used by Entire Output Management on mainframes must be used with "Spanned Records".

Migrating from Previous Versions

Migration to Version 3.4.1 is possible from Version 3.2.1, 3.2.2 or 3.3.1, but not from earlier versions.

For a detailed migration description, see *Migrating from Previous Versions* in the *Installation and Customization* documentation.

In addition to performing the migration procedure, you have to perform the following:

- The names of parameter data areas and the structures in data areas have changed. Therefore, adapt all Entire Output Management user exits and application programming interfaces to the new names (for example, the `NOMEXnnP` parameter data areas in the library `SYSNOMS`) and the new field formats/lengths (for example, change `+P-SPOOL-ATTRIBUTES-EXTENDED` from `(A/120) DYNAMIC` to `(A) DYNAMIC`) and then recatalog them. Details and examples are provided in the library `SYSNOMS`.
- Recatalog with the new version all your user exits and programs which use Entire Output Management application programming interfaces.

Solved Problems

All solved problems of Version 3.3 and its service packs are included in this version.

Enhancements and New Features

The following enhancements and new features are available with this version:

- [Improvement of Data Structures](#)
- [Exporting Objects to Another Environment](#)
- [Reports - Multimedia File Formats](#)
- [Report Attributes](#)
- [System Defaults](#)
- [Authorization to Objects](#)
- [UNIX Defaults](#)
- [Application Programming Interfaces](#)

- [User Exits](#)

Improvement of Data Structures

The internal data structures of Entire Output Management have been improved, using Adabas long alpha fields and Adabas record spanning, which will result in a better performance.

Exporting Objects to Another Environment

Entire Output Management objects can be exported from one Entire Output Management environment to another. This allows you to use the same object definitions in another environment.

For details, see *Transferring Objects* in the *System Administration* documentation.

Reports - Multimedia File Formats

A report can be converted into common multimedia file formats: ASCII text, PDF and PostScript. The conversion can be done either when the report is loaded or when it is printed. For details see *Converting the Report Format* in the *Concepts and Facilities* documentation.



Note: Further enhancements of this new functionality will be provided with the next version.

Report Attributes

A report can contain identifying attributes for only one identification source. In previous versions, it was possible to define attributes for more than one identification source. This could lead to incorrect report attributes, as some values were overwritten. This has been rectified. As of this version, when you create a report, you can only define attributes for one identification source.

Existing report definitions, however, may still contain attributes for more than one identification source. If you open such a report, you will receive a message indicating that when you save the report only the attributes for the selected identification source will be kept, while those for the other sources will be lost. If you wish to keep those other attributes, you have to make multiple copies of the report before you open it.

System Defaults

The **Monitor Defaults** for **POWER/JES2** provide a new field **Error** which allows you to define a SYSOUT class to hold the SYSOUT data sets which cause an error during processing.

Authorization to Objects

The access authorization of users (as described under *Authorizing User Access to Objects* in the *User's Guide*) was not always evaluated correctly and could lead to inconsistent access rights. These inconsistencies have been removed.

UNIX Defaults

In node definitions, the field **Suspend** has been replaced by the field **Status** with a wider range of values; see *UNIX Defaults* in the *System Administration* documentaton.

Application Programming Interfaces

The following new application programming interfaces (APIs) are provided in the library `SYSNOMS`: `DOCARL11` (English) and `DOCARL12` (German); they can be used to list active reports by creation time.

All APIs now use separate parameter data areas. Therefore, you have to adjust your invoking programs accordingly (see *Migrating from Previous Versions* above).

User Exits

Entire Output Management now checks if the cataloging dates of all user exits are consistent with the current product version.

Discontinued Features

- [Physical Printer Types](#)

Physical Printer Types

As of this version, the following physical printer types are no longer supported: `HPSPPOOL`, `OS2PM`, `WINPM` and `WINPM32`.

Documentation

The Entire Output Management documentation may contain UNIX-specific information which is not relevant to Version 3.4.1, as this version is not available for UNIX platforms (see above).

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Entire Output Management Version 3.3.1 Release Notes

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These Release Notes inform you of the enhancements and new features provided with Version 3.3.1 of Entire Output Management; they cover the following topics:

Unless otherwise indicated, the information in these Release Notes applies to Version 3.3.1 on both mainframe and UNIX platforms.

Update information:

The following section has been added for Open Print Option (OPO) Version 3.3.2 in November 2012: *OPO Silent Installation and Uninstallation*.

Prerequisites for Mainframes

Before you can install Entire Output Management on a mainframe computer, the following Software AG products must have been installed at your site:

- Adabas Version 8 or above;
- Natural Version 4.2 or above; the Natural installation must include the Software AG Editor component;
- Entire System Server Version 3.5 or above;
- Entire System Server Version 2.1.4.6 for UNIX/Windows, or above (optional; for UNIX/Windows access);
- System Automation Tools Version 3.3.1.4 or above;
- Natural Security (optional; required for UTM users under BS2000/OSD);
- EntireX (optional, for multi-CPU support) Version 8.1.1 or above for z/OS, Version 7.2.3 or above for z/VSE, Version 7.1.4 or above for BS2000/OSD;
- Entire Network (optional, for multi-CPU support);
- Con-nect (optional).

Prerequisites for UNIX

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

- Adabas Version 6.1 for UNIX, or above;
- Natural Version 6.3.8 for UNIX, or above; the Natural installation must include the Natural Web Interface package and the Software AG Editor component;
- Entire System Server Version 2.1.4.6 for UNIX, or above;

- System Automation Tools Version 3.3.1, or above;
- EntireX Version 8.2, or above (optional, for multi-CPU support).

Migrating from Previous Versions

Migration to Version 3.3.1 is possible from Version 3.2.1 or 3.2.2, but not from earlier versions.

For a detailed migration description, see *Migrating from Previous Versions* in the *Installation and Customization* documentation.

In addition to performing the migration procedure, you have to perform the following:

- Change to (A250) the format/length of the error text fields `NOMEXnnn-ERROR-TEXT` related to the user exits `NOMEX*` in `SYSNOMS`.
- Change to (A/120) `DYNAMIC` the format/length of the application-independent variable `+P-SPOOL-ATTRIBUTES-EXTENDED` in the user separation routines in which it is used.
- Recatalog with the new version all your user exits and programs which use Entire Output Management application programming interfaces.
- Under UNIX, replace the scripts used for customization (see *Customization* in the *Installing and Setting Up Entire Output Management on UNIX Platforms* documentation) with those of the current Entire Output Management version from the `INSTALL` directory.

Solved Problems

All solved problems of Version 3.2 and its service packs are included in this version.

Enhancements and New Features

The following enhancements and new features are available with this version:

- [Multitasking Monitor under UNIX and Printer Tasks](#)
- [New Printer Type WRTSPOOL](#)
- [Attribute Symbols](#)
- [Enhanced Transfer Utility](#)
- [Enhanced Monitor Log](#)
- [Enhanced Logging](#)
- [Enhanced Tracing](#)
- [VTAM Print Requests](#)
- [Parameter SATVERS in Server Definition](#)

- [OPO Silent Installation and Uninstallation](#)

Multitasking Monitor under UNIX and Printer Tasks

As of this version, you can run the Entire Output Management Monitor under UNIX as a multi-tasking system with up to five tasks in the same way as in mainframe environments. The subtasks can be customized with the same functions as on mainframes; see *Subtask Processing* in the section *Monitor Defaults* of the *System Administration* documentation.

In addition, printer tasks will no longer end after a printout. Instead, they will be "idle" and wait for further incoming printout requests. If a printer task is idle for more than 30 minutes, it will terminate with error message 1566: "Printer task terminates (long idle time)." This new behavior contributes to improving performance.

New Printer Type WRTSPOOL

The new printer type WRTSPOOL is available under z/OS and z/VSE to write output directly to the spool.

Attribute Symbols

In the special attributes of the printer types EMAIL, UNIXLP, NATUNIX and DISKUNIX, you can specify attribute symbols. At the time of printing, these symbols will then be replaced by the corresponding attribute values.

Enhanced Transfer Utility

The Transfer Object utility has been enhanced. It now allows you to:

- transfer folders from one environment to another;
- transfer objects together with their authorization lists; this applies to bundles, distribution lists, logical printers, reports, and folders (as described in the corresponding sections of *Transferring Objects* in the *System Administration* documentation).

Enhanced Monitor Log

The print facility of the monitor log has been enhanced. Now it is possible to enter a search string for full text search: Only the log entries containing this string are printed.

In addition, the monitor log now uses a formatted page.

Enhanced Logging

The Entire Output Management log now contains all messages, including trace messages. This means that the output is written to the System Automation Tools log file, which may increase significantly if tracing is switched on. Thus you can obtain a complete log even in server environments which do not allow I/Os.

One Entire Output Management log message can now contain up to 250 characters per program level; previously the limit was 70 characters altogether.

The first line of the log message is displayed in the log display (see *Displaying the Monitor Log* in the *System Administration* documentation) as before. However, the line command `IN` (info) now displays the whole message with all lines, and you can scroll within the display.

Enhanced Tracing

With the `TRACE` jobcards in the monitor defaults (menu 8.1, item 2), you can now restrict the trace function to certain program levels (Natural system variable `*LEVEL`) and components. For details, see the trace information under "Jobcards" in the section *Monitor Defaults* of the *System Administration* documentation

The specified trace level also applies if tracing is activated with the direct command `T+` in menu 8.6. If no trace level is specified, `T+` will cause all levels to be traced.

If modules for UNIX access are called with tracing, the trace facility of Entire System Server on UNIX will be switched on automatically, too. This will create a selective trace even in Entire System Server in case of problems with UNIX or Windows nodes.

You should only activate tracing when Software AG Support personnel requests you to do so.

VTAM Print Requests

As of this version, it is possible to re-route VTAM print requests to Entire Output Management. See *Re-Routing VTAM Output to Entire Output Management* in the *Installation and Customization* documentation for details.

Parameter `SATVERS` in Server Definition

The parameter `SATVERS` in the parameter block `SATSTART` of the server environment definition (see *Define Environment for Entire Output Management Server* in the *Installation and Customization* documentation) is now obsolete.

OPO Silent Installation and Uninstallation

The Open Print Option (Version 3.3.2) can be installed and uninstalled in silent mode, that is, without requiring user interaction. See *Silent Installation and Uninstallation* in the *Installation and Customization* documentation for details.

Discontinued Features

- [Long Records](#)
- [Batch Monitors](#)

Long Records

As of this version, the processing of so-called long records (records with more than 250 characters per line) is no longer supported. The intention of long records was to process binary data as a stream, not limited by physical lines. Entire Output Management now supports the processing of native binary data, as described under *Processing of Binary Data* in the *Concepts and Facilities* documentation.

Batch Monitors

Previously, System Automation Tools could start the runtime environment for the Entire Output Management monitor in either batch mode or subtask mode. As of this version, batch mode is no longer supported. Subtask mode has proven to be a stable and convenient method to have the batch tasks controlled by Entire System Server, and it is available for all mainframe platforms.