

Natural 3.1.6 Release Notes - General Information

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Introduction

These Release Notes inform you of the enhancements provided with Version 3.1.6 of Natural.

Natural 3.1.6 contains all ZAPs, INPL updates, early warnings and source changes applied to Natural 3.1.5 as error corrections.

Prerequisites

Operating/Teleprocessing Systems Required

Natural Version 3.1 requires the following versions of the following operating/teleprocessing systems:

Product	Version
BS2000/OSD	2, 3 or 4
OS/390	2.8, 2.9 or 2.10 Natural for VSAM Version 3.1.6 requires that the corresponding DFSMS Version be installed, minimum requirement is DFSMS Version 1.5.
z/OS	1.1, 1.2 or 1.3 (Natural Version 3.1.6 supports z/OS to the same extent as it supports OS/390; new features of z/OS will be supported only as of Natural Version 4.1)
VSE/ESA	2.5 or 2.6 To use a global buffer pool, VSE/ESA Version 2.5 or above with the ESA/390 Subsystem Storage Protection Feature must be installed. Natural for VSAM Version 3.1.6 requires that the corresponding VSE/VSAM Version be installed.
VM/ESA	2.4
z/VM	3.1, 4.1, 4.2 or 4.3 (Natural Version 3.1.6 supports z/VM to the same extent as it supports VM/ESA; new features of z/VM will be supported only as of Natural Version 4.1)
Com-plete	5.1.3, 6.1.1 or 6.2.1
CICS/ESA	4.1, CICS TS 1.2, 1.3, 2.1 or 2.2
CICS/VSE	2.3, CICS TS 1.1 or 1.1.1
IMS/TM	6, 7
UTM	4 or 5
TIAM	All versions available with OSD Version 2, 3 or 4.

Software AG provides Natural support for the operating/teleprocessing system versions supported by their respective manufacturers. Generally, when an operating/teleprocessing system provider stops supporting a version of an operating system, Software AG will stop supporting that operating system version.

Although it may be technically possible to run a new version of Natural on an old operating/teleprocessing system, Software AG can not continue to support operating/teleprocessing system versions that are no longer supported by the system's provider.

Assemblers Required

Natural Version 3.1 requires one of the following assemblers for the assembly of its source modules:

- "HL" assembler (IBM),
- "Assembh" assembler (Siemens).

It may well be possible that the source modules can be assembled with older assemblers; however, Software AG cannot guarantee this.

Migration

When migrating from an earlier Natural version to Natural for Mainframes Version 3.1.6, you must observe the following:

Use of USR* programs



Make sure that the latest USR* programs from the delivered library SYSEXT are used.

If you have copied USR* programs to your FUSER system file, you have to replace them before use.

MAXBUFF Restrictions - RPC only

If you are using the ADALNK transport method to communicate with the EntireX Broker (default on mainframe), the following restrictions for MAXBUFF apply depending on the value specified for ACIVERS:

Value for ACIVERS	Maximum Value for MAXBUFF
ACIVERS=1	31
ACIVERS=2	30 (default value)
ACIVERS>2	30

For those migrating from Natural 2.3 to 3.1:



If MAXBUFF=31 has been used before, you must adapt your NATPARM in one of the following two ways:

1. specify ACIVERS=1 and leave MAXBUFF untouched
2. specify MAXBUFF=30 and leave ACIVERS untouched

The latter is recommended to enable the support of EntireX Security.

Documentation

- An updated set of documents is distributed with this release.
- The Natural for DB2 documentation has been provided with several examples for the use of stored procedures.

Error Messages

To enable the viewing and printing of error message explanations when no active Natural Version 3.1 nucleus is available, an updated version of the English Natural error messages in the range of NAT0001 to NAT9999 has been included in the Messages and Codes documentation. Library-specific messages and messages relating to other Software AG products are not included.

The German Natural error messages and warnings were updated with the release of Natural Version 3.1.6 and are available online within Natural.

End of Maintenance of Natural Versions

The maintenance for Natural Version 3.1.4 for Mainframes ends 6 months after the release of Natural Version 3.1.6. Extensions of the maintenance for Natural Version 3.1.3 and 3.1.4, if any, will be published via ServLine24 (<http://servline24.softwareag.com>).

Software AG strongly recommends that you migrate to Natural Version 3.1.6 as soon as possible.

Natural and Other Software AG Products

To use the following Software AG products in conjunction with Natural Version 3.1, the following product versions (or above) are required:

Product	Prod. Code	Version
Adabas	ADA	7.1.2 (Version 7.1.2 is supported to the same extent as it supports Version 6.2; new features of Adabas Version 7.1.2 will be supported only as of Natural Version 4.1)
Adabas Online System	AOS	7.1.2
Adabas SQL Server	ESQ	1.4.3
Adabas Review	REV	4.2.1
Adabas Text Retrieval	TRS	2.1.4
Com-plete	COM	5.1.3
Con-form	CMF	3.3.1
Con-nect	CNT	3.3.1
EntireX Broker Stub	EXX	5.3.2, 6.1.1 Version-compatibility with EntireX Broker is required. If Secure Socket Layer (SSL) is to be used with Natural RPC Version 5.1.1, EntireX Broker Stub Version 6.1 is required. If location transparency is to be used with Natural RPC Version 5.1.1, EntireX Broker Stub Version 6.2 is required.
Entire Event Management	NCL	2.1.2

Product	Prod. Code	Version
Entire Net-Work	WCP	5.6.1 (This product is required if you are using Natural Security in a heterogeneous environment.)
Entire Operations	NOP	3.2.1
Entire Output Management	NOM	2.1.1
Entire System Server	NPR	3.1.1
Entire System Server Interface	---	The Entire System Server Interface (ESX) is no longer a separate product but part of Natural (and included on the Natural installation tape). See also Installing the Entire System Server Interface in the Natural Installation Guide for Mainframes.
Entire Transaction Propagator	ETP	1.4.1
EntireX DCOM	EXX	5.3.2, 6.1.1 (required for NaturalX only)
Natural Advanced Facilities	NAF	2.3.7
Natural CICS Interface	NCI	2.3.7
Natural Connection	NTC	3.1.6
Natural Construct	CST	4.3.1
Natural Development Server	NDV	1.1.3
Natural Document Management	NDM	1.6.3
Natural for DB2	NDB	3.1.6 (this version supports DB2 V5R1; V6R1 and V7R1 are supported to the same extent as with V5R1; new features of DB2 V6R1 and V7R1 will be supported only as of Natural for DB2 Version 4.1)
Natural for DL/I	NDL	2.3.7
Natural for SQL/DS	NSQ	3.1.6
Natural for VSAM	NVS	3.1.6
Natural IMS/TM interface	NII	2.3.7
Natural ISPF	ISP	2.4.5

Product	Prod. Code	Version
Natural Optimizer Compiler	NOC	2.3.7, 3.1.5 Beta Version
Natural Remote Procedure Call	---	5.1.1 With Natural Version 3.1.6, the Natural Remote Procedure Call is a separate subcomponent of Natural. The old RPC version that is an integral part of Natural is still delivered with Natural Version 3.1.6; the old and the new RPC versions are available in parallel; you must enable the new version explicitly to make it become effective, the old version is the default.
Natural Security for Mainframes	NSC	3.1.6
Natural TIAM interface	NRT	3.1.6
Natural TSO interface	NTI	3.1.6
Natural UTM interface	NUT	3.1.6
Natural VM/CMS Interface	NCM	3.1.6
NaturalX	NXX	3.1.4
Predict	PRD	4.1.2 (Version 4.2.1 if both the Natural Development Server and Predict are to be installed)
Predict Application Control	PAC	2.2.2
Predict Case	PCA	2.5.2
Review Natural Monitor	RNM	3.6.3
Super Natural	NSN	3.3.3

Although it may be technically possible to run versions of other Software AG products older than the ones listed above in conjunction with a new version of Natural, Software AG can not continue to support such combinations.

DRS Printing Facility

Software AG introduces Levi, Ray & Shoup, Inc. (LRS) as an Authorized Partner for Natural Printing Solutions. Natural provides an interface to the LRS Enterprise Print Management family of products. This interface enables you to route the Natural print output to the LRS Dynamic Report System (DRS).

For further details, see also the LRS homepage at <http://www.lrs.com/epm/drs.htm>.

Information on Upcoming Releases

With the next major release of Natural (Version 4.1), it is planned to introduce the following:

- ENDING AT Clause in READ or HISTOGRAM Statements
- Discontinued Support of Applications Cataloged with Natural Version 2.2
- Delivery of SYSPC Utility Discontinued
- Functionality of Natural for SQL/DS Integrated into Natural for DB2
- Size Reduction of Objects Cataloged with Natural Optimizer Compiler

ENDING AT Clause in READ or HISTOGRAM Statements

In previous Release Notes, a change notice concerning a planned change in the semantics of the THRU keyword in Natural Version 4.1 was included. This change will not be implemented. The semantics of the THRU keyword will remain unchanged.

Discontinued Support of Applications Cataloged with Natural Version 2.2

With the next major release of Natural (Version 4.1), applications cataloged with Natural Version 2.2 can be executed without any conversion procedure being required. Any adjustments to the programs necessary will be mentioned in the Natural Version 4.1 Release Notes for Mainframes.



However, the next major release of Natural after Version 4.1 will require that all such applications be recataloged before execution with that version.

Software AG strongly recommends that existing applications be recataloged with Natural Version 3.1 to take advantage of improved runtime handling.

Delivery of SYSPC Utility Discontinued

With the next major release of Natural (Version 4.1), the delivery of the SYSPC utility will be discontinued. Software AG recommends that existing applications using the SYSPC utility be modified so that they can be used with the utility SYSTRANS, NATLOAD or NATUNLD instead. With Entire Connection Version 4.2.1, new transfer tasks are provided that no longer require the SYSPC utility.

Functionality of Natural for SQL/DS Integrated into Natural for DB2

With the next major release of Natural (Version 4.1), the delivery of the product Natural for SQL/DS (NSQ) will be integrated into the product Natural for DB2 (NDB). After that, the product Natural for SQL/DS will no longer be available.

Size Reduction of Objects Cataloged with Natural Optimizer Compiler

With the next major release of Natural for Mainframes (Version 4.1), it is planned to reduce the size of objects that are cataloged with Natural Optimizer Compiler. This will reduce the space requirements for your FUSER file. The buffer pool requirements will not be affected.

To benefit from this enhancement, it will be necessary that you recatalog your programming objects with Natural Version 4.1 for Mainframes.