

Natural

Natural Release Notes

Version 9.1.1

April 2019

Dieses Dokument gilt für Natural ab Version 9.1.1.

Hierin enthaltene Beschreibungen unterliegen Änderungen und Ergänzungen, die in nachfolgenden Release Notes oder Neuauflagen bekanntgegeben werden.

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Preface

This document provides a brief summary of the changes and enhancements that have been introduced in Natural Version 9.1.1 for Mainframes and the Natural add-on products released with this version.

Revised and updated documentation sets are available with this version.

Supported Environments	Operating Systems TP Monitors/Online Interfaces Database Management Systems Assemblers IBM z/OS Authorized Code Scanner (zACS) Authorized Services Manager and Roll Server
Available and Supported Software AG Product Versions	Product Availability and End of Maintenance Overview of Natural Add-On Product Versions Software AG Product Versions Supported by Natural
Installation and Compatibility	License File Changes to Installation Compatibility
New and Changed Features of Base Natural	Operations and Performance Unicode and Code Page Support Editors Utilities Profile and Session Parameters
New and Changed Features of Natural Version 9.1.1 Add-On Products	Natural Development Server Natural RPC (Remote Procedure Call) Natural Security Natural for zIIP
Enhancements of Natural Add-on Products for Special Natural Version 9.1.1 Features	Natural CICS Interface Natural SAF Security
Dropped Features	Features Dropped with this Natural Version Features Dropped with a Future Natural Version

1 About this Documentation

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Dokumentationskonventionen

Konvention	Beschreibung
Fettschrift	>Kennzeichnet Elemente auf einem Bildschirm.
Nichtproportionale Schrift	Kennzeichnet Namen und Orte von Diensten im Format <i>Ordner.Unterordner.Dienst</i> , Programmierschnittstellen (APIs), Namen von Klassen, Methoden und Properties in Java.
<i>Kursivschrift</i>	Kennzeichnet: Variablen, für die Sie situations- oder umgebungsspezifische Werte angeben müssen. Neue Begriffe, wenn sie erstmals im Text auftreten. Verweise auf andere Dokumentationsquellen.
Nichtproportionale Schrift	Kennzeichnet: Text, den Sie eingeben müssen. Meldungen, die vom System angezeigt werden. Programmcode.
{ }	Zeigt eine Reihe von Auswahlmöglichkeiten an, von denen Sie eine auswählen müssen. Geben Sie nur die innerhalb der geschweiften Klammern vorhandenen Informationen ein. Geben Sie nicht die Klammersymbole { } ein.
	Trennt zwei sich gegenseitig ausschließende Auswahlmöglichkeiten in einer Syntaxzeile voneinander ab. Geben Sie eine der Auswahlmöglichkeiten ein. Geben Sie nicht das Symbol ein.
[]	Zeigt eine oder mehrere Optionen an. Geben Sie nur die innerhalb der eckigen Klammern vorhandenen Informationen ein. Geben Sie nicht die Klammersymbole [] ein.
...	Zeigt an, dass Sie mehrere Auswahlmöglichkeiten desselben Typs eingeben können. Geben Sie nur die Informationen ein. Geben Sie nicht die drei Auslassungspunkte (...) ein.

Online-Informationen und Support

Dokumentationswebsite der Software AG

Sie finden die Dokumentation zu den Produkten der Software AG auf der Dokumentationswebsite der Software AG unter <https://documentation.softwareag.com>.

Empower, die Produktsupportwebsite der Software AG

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Wenn Sie ein Benutzerkonto erhalten haben, können Sie den eService-Bereich von Empower unter <https://empower.softwareag.com/> aufrufen und dort Support-Fälle online öffnen.

Informationen zu Software AG-Produkten finden Sie auf der Empower-Produktsupportwebsite unter <https://empower.softwareag.com>.

Unter **Products & Documentation** können Sie Anträge bezüglich Produktmerkmalen und Produktverbesserungen einreichen, Informationen über die Verfügbarkeit von Produkten abrufen und Produkte herunterladen.

Im **Knowledge Center** finden Sie Informationen zu Programmkorrekturen (Fixes) und frühzeitige Warnungen, technische Abhandlungen (Papers) und Artikel aus der Wissensdatenbank.

Wenn Sie noch Fragen haben und telefonisch mit uns Kontakt aufnehmen möchten, können Sie im Kontaktverzeichnis des Globalen Supports unter https://empower.softwareag.com/public_directory.aspx eine der dort für Ihr Land angegebenen örtlichen oder gebührenfreien Telefonnummern auswählen.

Software AG TECHcommunity

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- Sie können auf Produktdokumentationen zugreifen, wenn Sie die erforderlichen Authentifizierungsdaten für die TECHcommunity haben. Andernfalls müssen Sie sich registrieren und "Documentation" als Interessengebiet angeben.
- Sie erhalten Zugang zu Artikeln, Code-Beispielen, Demos und Lernprogrammen.
- Sie können an von Software AG-Experten moderierten Online-Diskussionsforen teilnehmen, um Fragen zu stellen, über bewährte Methoden und Prozesse (Best Practices) zu diskutieren und zu erfahren, wie andere Kunden die Technologien der Software AG nutzen.
- Sie können Links auf externe Websites benutzen, die sich mit offenen Standards und Web-Technologien befassen.

Datenschutz

Die Produkte der Software AG stellen Funktionen zur Verarbeitung von personenbezogenen Daten gemäß der Datenschutz-Grundverordnung (DSGVO) der Europäischen Union zur Verfügung. Gegebenenfalls sind in der betreffenden Systemverwaltungsdokumentation entsprechende Schritte dokumentiert.

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Software AG provides Natural support for the versions of the operating systems, TP monitors, database management systems and assemblers supported by their respective manufacturers. In general, when the provider of an operating system, TP monitor, database management system or assembler stops supporting a version of an operating system, TP monitor, database management system or assembler, Software AG will stop supporting that version of the operating system, TP monitor, database management system or assembler.



Note: For information regarding Software AG product compatibility with IBM platforms and any IBM requirements for Software AG products, please review the *Product Compatibility for IBM Platforms* web page at <http://www.softwareag.com/>.

Operating Systems

Software AG provides Natural support for the operating systems and versions listed in the **Product Version Availability** section of the Software AG Empower website at <https://empower.software-ag.com/> (see also *Product Availability and End of Maintenance*).

TP Monitors/Online Interfaces

Natural Version 9.1.1 supports the versions of the TP monitors/online interfaces listed below:

Product	Version
Com-plete	See <i>Software AG Product Versions Supported by Natural</i> .
CICS TS for z/OS	5.3, 5.4, 5.5, 5.6
CICS TS for VSE/ESA	2.1
IMS TM	15.1
openUTM	6.3, 6.4, 6.5, 7.0
TIAM	13.1, 13.2

Database Management Systems

Natural Version 9.1.1 supports the versions of the database management systems listed below:

Product	Version
Adabas	See Software AG Product Versions Supported by Natural .
DB2 for z/OS	12.1
DB2 Server for VSE & VM	7.3, 7.4, 7.5
DL/I	As delivered with the TP monitor IMS TM
VSAM	As delivered with the operating system
DFSMSStvs	As delivered for the respective VSAM version if transactional VSAM is to be used with Natural for VSAM

Assemblers

Natural Version 9.1.1 requires the following assembler for the assembly of its source modules on z/OS:

- “HL” Assembler Version 1.6

Natural Version 9.1.1 requires one of the following assemblers for the assembly of its source modules:

- “HL” Assembler Version 1.6 (z/OS and z/VSE operating systems),
- “Assembh” Assembler (BS2000 operating systems).



Note: It may be possible to assemble source modules with older assemblers; however, Software AG cannot guarantee this.

IBM z/OS Authorized Code Scanner (zACS)

All Natural Program Calls (PC) have been validated with the IBM z/OS Authorized Code Scanner (zACS) toolkit. All found vulnerabilities have been fixed, therefore all Natural PCs are vulnerability-free now. For more information about zACS, please refer to the corresponding IBM documentation at https://www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.bpn/bpn.htm.

Authorized Services Manager and Roll Server

The Authorized Services Manager (module NATASM91) and the Natural Roll Server (module NATRSM91 or fix NAT911L001) supplied with Natural Version 9.1.1 employ machine instructions from the IBM General Instructions Extension Facility. They will not execute successfully on machines for which IBM does not supply this extension facility.

3 Available and Supported Software AG Product Versions

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Product Availability and End of Maintenance

You can view all available Software AG product versions and check the dates when their maintenance ends by visiting the Software AG Empower website at <https://empower.softwareag.com/>:

1. Log in to Empower.
2. Expand **Products & Documentation** in the left menu of the page and select **Product Version Availability**:

Product Version Availability

General Availability (GA), Platform retirement, End of Maintenance (EOM), and End of Sustained Support (EOSS) dates for your products. [View a description of these terms in our Maintenance Policy.](#)
There are some exceptions to the product availability dates shown below. For details of those exceptions, [visit this page.](#)

Product Family:

Product Name:

Product Version:

Operating System: Operating System Version:

Show prior Product Versions:

Sort by Product Version: Descending Ascending Rows per Page:

Expand all - Collapse all
Rows 1 - 100 of 12116 | Rows per page: 100 | Too many data selected; Printable Version of below Table is not available

Product Family	Product - Product Version	Version Lifecycle Milestone			
Operating System and Hardware *		GA	OS Retirement	EOM	EOSS

3. Select the required filter criteria from the drop-down list boxes and click on the **SEARCH** button.

A list of supported Software AG products that meet the filter criteria is shown. In addition, the end-of-standard-maintenance dates are indicated in the **EOM** column.

If you mark **Show prior Product Versions**, only product versions that are out of maintenance are listed.

Overview of Natural Add-On Product Versions

This release of Natural provides changes to the Natural add-on product versions (or subcomponents) marked with an asterisk (*) in the following table. All other Natural add-on product versions listed in the table have already been released with a previous Natural version and provide no changes.

The Zap solutions and fixes mentioned in the following table can be downloaded from the **Product Fixes** section of the Software AG Empower website at <https://empower.softwareag.com/>.

Product Name	Product Code	Version
Natural Advanced Facilities	NAF	8.2.7
Natural CICS Interface (*)	NCI	8.2.7
		8.3.4 (z/OS only)
Natural Com-plete/SMARTS Interface	NCF	8.2.7
		8.3.5 (z/OS only)
Natural Connection	NTC	8.2.7
Natural Development Server	NDV	9.1.1
Natural for DB2	NDB	9.1.1
		8.4.2
		with Zaps NQ12009, NQ12010, NQ12011 and NQ12012 applied and Hotfix NQ84207 if the multi-fetch feature is to be used
Natural for DL/I	NDL	8.2.7
		(z/OS only)
Natural for VSAM	NVS	8.2.7
Natural IMS TM Interface	NII	8.2.7
		8.3.4 if Natural for IMS for zIIP is to be used
Natural ISPF	ISP	8.2.7
Natural Japanese Language Pack	NCJ	9.1.1
Natural <i>open</i> UTM Interface	NUT	8.2.7
Natural Optimizer Compiler	NOC	9.1.1
		8.3.5
Natural Review	RNM	8.2.7
Natural RPC (*)	RPC	8.2.7
		(RPC is a separate subcomponent of Natural)
Natural SAF Security (*)	NSF	8.2.7

Natural Security (*)	NSC	9.1.1
Natural SQL Gateway	NSB	8.2.7
Natural TIAM Interface	NRT	8.2.7
Natural TSO Interface	NTI	8.2.7
Natural Web I/O Interface (Server)	NWO	9.1.1
Super Natural	NSN	8.2.7
Natural Batch for zIIP	NAZBT	8.2.7
Natural for CICS for zIIP	NAZCI	8.3.4
Natural for Com-plete for zIIP	NAZCO	8.3.5
Natural for IMS for zIIP	NAZNI	8.3.4

* Product-specific changes and/or enhancements are described in *New and Changed Features of Natural Version 9.1.1 Add-On Products*.

Software AG Product Versions Supported by Natural

Natural Version 9.1.1 and the add-on products released with this version support the minimum versions and fixes (or higher) of the optional Software AG products listed in the following table. In general, Software AG recommends using the latest product versions supported by Natural to take advantage of new features and enhancements provided by these products.

The Zap solutions, fixes and service packs mentioned in the following table can be downloaded from the **Product Fixes** section of the Software AG Empower website at <https://empower.software-ag.com/>.

Product Name	Product Code	Minimum Version
Adabas	ADA	8.3 8.3.4 with Zap AO834004 (ADALCO) if Natural for Com-plete for zIIP is installed
Adabas CICS Interface	ACI	8.3 8.4.2 if Natural for CICS for zIIP is installed
Adabas IMS/TM Interface	AII	8.3 8.4.3 if Natural for IMS for zIIP is installed
Adabas Limited Load Library	WAL	8.3 if Natural SAF Security is to be used WAL843L001 if Natural SAF Security with password phrases is to be used
Adabas Online System	AOS	8.3

Adabas Review	REV	4.8.2
Adabas System Coordinator	COR	8.2.2 COR822P003 if Natural for CICS for zIIP is installed
Adabas Text Retrieval	TRS	2.1.4
Com-plete	COM	6.8.1 Cumulative Fix 12 with SMARTS Version 3.3.1 Cumulative Fix 25
Con-form	CMF	3.4.3
Con-nect	CNT	3.4.3
ConnecX SQL Engine	CXX	12.0.1
Entire Connection	PCC	9.1.1
Entire Event Management	NCL	2.2.1 (2.1.2 for z/VSE)
Entire Net-Work	WCP	6.3.2 (This product is required if you are using Natural Security in a heterogeneous environment.)
Entire Operations	NOP	5.4.3
Entire Output Management	NOM	3.4.3
Entire System Server	NPR	3.6.2
International Components for Unicode for Software AG	ICS	2.2.1
Mainframe License Check	MLC	1.3.4
Natural Business Services	NBS	8.2.2
Natural Construct	CST	8.2.2
Natural Document Management	NDM	1.6.3 with Service Pack I001 applied
Natural Engineer	NEE	9.1.1
NaturalONE (*)	ONE	9.1.1
Natural Web I/O Interface (Client)	NWO	1.3.18
Predict	PRD	8.4.1
Predict Application Control	PAC	2.6.1
SMARTS	APS	2.7.2 Cumulative Fix 22 for BS2000 3.3.1 Cumulative Fix 28 for z/OS 3.3.1 Cumulative Fix 27 for z/VSE
System Automation Tools	SAT	3.4.3
webMethods EntireX	EXX	9.12 for z/OS 10.5 for z/OS to use the zIIP-eligible EntireX Broker stub NATETBZ 9.6.0 for z/VSE 8.1.1 for BS2000

Although it may be technically possible to run versions of other Software AG products which are older than the ones listed above with a new version of Natural, this is not recommended because, for legal reasons, Software AG cannot continue to support such combinations and cannot make any statements about whether it is technically possible to run a new version of Natural with versions of other Software AG products which are older than the ones listed above.

NaturalONE

For information on changes, enhancements and new features available with NaturalONE, see the *Release Notes* in the *NaturalONE* documentation in the **Documentation** section of the Software AG Empower website at <https://empower.softwareag.com/>.

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License File

A product license file for Natural is required. In addition, product license files are required for Natural Batch for zIIP, Natural for CICS for zIIP, Natural for Com-plete for zIIP and Natural for IMS for zIIP, if installed.

For information on product licensing, see the *Software AG Mainframe Product Licensing* documentation.

Changes to Installation

This section describes the changes in the installation process of base Natural and the Natural add-on products released with this Natural version.

- [System Maintenance Aid: Readme File](#)



Note: The sections indicated for more information are contained in the Natural *Installation* documentation, unless otherwise noted.

System Maintenance Aid: Readme File

For installation guidance and information on new or changed System Maintenance Aid (SMA) parameters and Natural features, you can view the product-specific Readme files by using the appropriate SMA function.

➤ To view a product-specific Readme

- From the product list on an SMA **Maintenance** screen, execute the RM (**Show Readme File**) command for the required product(s).

Compatibility

This section provides the latest information for this Natural release regarding compatibility with earlier versions of Natural for Mainframes as well as with Natural on other platforms.




Note: For information regarding Software AG product compatibility with IBM platforms and any IBM requirements for Software AG products, please review the [Product Compatibility for IBM Platforms](http://www.softwareag.com/) web page at <http://www.softwareag.com/>.

- [Using Natural Objects Created in Previous Natural Versions](#)

- [Special-Purpose Zaps](#)

Using Natural Objects Created in Previous Natural Versions

Natural objects that were created with Natural Version 2.3, 3.1, 4.1, 4.2 or 8.2 for Mainframes can be executed with Natural Version 9.1 without any adjustments to the objects or any conversion or migration procedure being required. This also applies to objects that have been cataloged with the Natural Optimizer Compiler.

 **Important:** Objects cataloged with a Natural Version prior to 2.3 must be recataloged before execution with Version 9.1. This also applies to data areas that are used by these objects.

Software AG strongly recommends that any existing objects be recataloged with Natural Version 9.1 to take advantage of improved runtime handling.

Special-Purpose Zaps

The following table lists Natural Version 9.1.1 Zaps and the special purposes they support:

Zap	Special Purpose	
NA17122	Allow index range of 1:9999 for MU/PE fields of VSAM files.	<p>Increase upper limit for MU and PE fields.</p> <p>When a MU or PE field is defined, the permitted index range is 1:191 for VSAM files.</p> <p>This Zap increases the upper limit to 9999.</p>
NA93189	Suppress NAT3145 error information	<p>Suppress extra L2 calls to Adabas after a NAT3145 error has occurred.</p> <p>If this Zap is applied, the application programming interface USR8202N no longer provides extended information on the NAT3145 error message.</p>
NA93228	Migrate old maps	Provide option to migrate Natural Version 4 maps that contain erroneous numeric field definitions to Natural Version 8.2.
NA95038	Resolve problems (RSP=46) during Natural mainframe calls to Adabas LUW	Resolve problems that can arise when Natural calls Adabas on Linux, UNIX or Windows from a mainframe platform: an unexpected RSP=46 can occur if a READ loop at the level 1 (*LEVEL=1) ends with an End-of-File (RSP=3) and is executed multiple times. This occurs because Natural on the mainframe does not send a final RC command to release the Adabas format buffer if the READ receives RSP=3.
NA96036	Define Arabic comma as special character	<p>The Arabic comma is not defined as a special character in Natural.</p> <p>If this Zap is applied, the Arabic comma is treated as a special character.</p>

Zap	Special Purpose	
NA97069	Avoid user exit UEXITB in ADALNK to set a password	Resolve problems with user exit UEXITB if used to set a password. If this Zap is applied, the password provided in BB is used for the ADABAS call instead of the user exit UEXITB.

5

New and Changed Features of Base Natural

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This section describes all changes and enhancements provided with Natural Version 9.1.1.



Note: The SYSEXV utility gives you access to examples of new features available in the current and in some earlier versions of Natural. SYSEXV is described in the *Utilities* documentation.

Operations and Performance

- [New Selectable Units Not Yet Available](#)

New Selectable Units Not Yet Available

All features previously supplied as selectable units are integrated in Natural Version 9.1.1. Selectable units are not yet available.

As a result, the setting of the SELUNIT profile parameter is ignored and appropriate messages occur for the SHOWSU system command and the SU line command of the SYSPROD system command.

Unicode and Code Page Support

New Names for Data Item Modules

The naming conventions for data item modules have been changed to reflect the ICU version in the names of the data items.

For more information, see *Naming Conventions for Data Item Modules* in the section *ICU Data Items* in the *Unicode and Code Page Support* documentation.

Editors

- [DDM Editor: SQL and DL/I Services Discontinued on z/VSE](#)



Note: The sections indicated for more information are contained in the *Editors* documentation, unless otherwise noted.

DDM Editor: SQL and DL/I Services Discontinued on z/VSE

The DDM editor (SYSDDM utility) no longer supports SQL services for Natural for SQL (NSQ) and the DL/I services for DL/I on z/VSE platforms.

See also *Features Dropped with this Natural Version*.

Utilities

- [DBLOG Utility](#)
- [Object Handler](#)
- [SYSCP Utility](#)
- [SYSPARM Utility](#)
- [SYSRPC Utility](#)
- [SYSTP Utility](#)
- [Natural Profiler Utility](#)



Note: The sections indicated for more information are contained in the *Utilities* documentation, unless otherwise noted.

DBLOG Utility

The DBLOG utility now also supports VSAM calls.

For more information, see the section *DBLOG Utility - Logging Database Calls*.

Object Handler

The `FIND` direct command of the Object Handler now also considers the save and catalog date of a Natural object in an object search operation with specified date/time range.

For more information, see the new `DATECHECK` option of the *select-clause* described in *Syntax of Natural Library Object and DDM Selection*.

SYSCP Utility

The new function **Loaded Code Pages** lists the already loaded code pages in the current Natural environment. For more information, see *Loaded Code Pages* in section *SYSCP utility* of the Utilities documentation and the *Unicode and Code Page Support* documentation.

SYSPARM Utility

Enhanced SYSPARM TERM1ST Option

The `TERM1ST` option of the `SYSPARM` direct command now also allows resetting a warning counter for `SYSPARM` commands that output return codes.

For more information, see `TERM1ST` in the *basic command syntax* of the `SYSPARM` command in the section *SYSPARM Utility*.

New SYSPARM LOWER Option for Lowercase Conversion

The `SYSPARM` direct command now provides the `LOWER` option to specify whether lowercase letters are converted to uppercase.

For more information, see `LOWER` in the *basic command syntax* and the *with-clause* of the `SYSPARM` command in the section *SYSPARM Utility*.

SYSRPC Utility

The `SYSRPC` utility is a subcomponent of Natural RPC: see [SYSRPC Utility](#) in the section *Natural RPC*.

SYSTP Utility

New Permanent Storage Segments Function

The new function **Permanent Storage Segments** displays permanently allocated storage segments. For more information, see *Permanent Storage Segments* in section *SYSTP Utility* of the *Utilities* documentation.

Enhanced Natural Sub-Systems and Roll Server Information

The display of **Natural Sub-Systems and Roll Server Information** has been completely revised to provide an overview as well as detailed information screens. The new line command `E` displays the ECSAD storage. For more information, see *Natural Sub-Systems and Roll Server Information* in section *SYSTP Utility* of the *Utilities* documentation.

Natural Profiler Utility

Transaction Response Time Evaluation

The Natural Profiler utility now provides the option to evaluate transactions and generate a transaction summary. The summary shows how many events occurred during execution of the transaction and the response time used by the transaction.

For more information, see *Transaction Summary* in the section *Using the Profiler Utility in Batch Mode*.

Profile and Session Parameters

- [New Profile and Session Parameters](#)
- [Changed/Enhanced Profile Parameters](#)



Note: The sections indicated for more information are contained in the *Parameter Reference* documentation, unless otherwise noted.

New Profile and Session Parameters

Parameter	Corresponding Macro	Task	Description
THPINIT	NTPRM	Pre-initialized Storage Thread Model Name	<p>This new profile parameter is used to save the contents of the Natural storage thread after static session initialization and to reuse it for other sessions in order to improve performance.</p> <p>This parameter only applies if Natural for zIIP is installed with an additional module for pre-initialized thread support.</p>

Changed/Enhanced Profile Parameters

Parameter	Corresponding Macro	Task	Change/Enhancement
PGP	NTPGP	Properties for External Programs	<p>New Property for Standard Linkage under CICS</p> <p>The new STDLO property shows whether standard linkage on QR TCB under CICS is used.</p>
ZIIP	NTZIIP	zIIP Processing (z/OS Only)	<p>Disable Caching for Print and Work Files</p> <p>The new PWCXAM keyword subparameter disables caching for print and work files for single or multiple file access methods.</p>



Note: The ZIIP keyword subparameter IMSG replaces functionality introduced with the special purpose Zap NA95083. This Zap is no longer required when using IMSG.

6 New and Changed Features of Natural Version 9.1.1 Add-On

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This section describes all changes and enhancements provided with the add-on products available with Natural Version 9.1.1.



Note: For an overview of all Natural add-on products and the new product versions available, see [Overview of Natural Add-On Product Versions](#).

Natural Development Server

The changes and enhancements provided with Natural Development Server Version 9.1.1 are described in the following section.

Natural Development Server Version 9.1.1 includes all changes of Natural Development Server Version 8.3. provided in previous Natural releases.

- [New Session Parameters SECURITY_CACHING and SECURITY_TIMEOUT for z/OS \(Batch\)](#)



Note: The sections indicated for more information are contained in the *Natural Development Server* documentation in the **Documentation** section of the Software AG Empower website at <https://empower.softwareag.com/>, unless otherwise noted.

New Session Parameters SECURITY_CACHING and SECURITY_TIMEOUT for z/OS (Batch)

The following two new session parameters have been added to the Natural Development Server for z/OS (Batch).

SECURITY_CACHING

enables a client directory that stores user information for subsequent actions

SECURITY_TIMEOUT

manages the life time of clients

These parameters are available via two additional buttons in the HTML Monitor Client that list or cancel clients and their respective sessions.

Natural RPC (Remote Procedure Call)

With Natural Version 9.1.1, an enhanced Natural RPC Version 8.2.7 is delivered which introduces the following changes and enhancements:

- [Application Programming Interfaces \(APIs\)](#)

Application Programming Interfaces (APIs)

The following Natural RPC-specific APIs are new in the SYSEXT system library or have changed:

API	Task
USR9171N	Set credentials for RPC server. Enhanced version of USR1071N with the capability of using longer passwords.
USR9175N	Ping or terminate a Natural RPC server. Enhanced version of USR2073N with the capability of using longer passwords.
USR9176N	Terminate an EntireX Broker service. Enhanced version of USR8208N with the capability of using longer passwords.
USR9177N	Terminate an EntireX Broker service. Enhanced version of USR8213N with the capability of using longer passwords.

Natural Security

The following enhancements are provided with Natural Security Version 9.1.1:

- [Maximum Number of Logon Attempts](#)
- [Lock User Option](#)
- [User Preset Values](#)
- [Library Profiles - FDIC DBID Zero](#)
- [File/DDM Profiles - Copying With Links](#)
- [Application Programming Interfaces \(APIs\)](#)
- [SECLOAD](#)
- [Natural Development Environment - DDMs in Natural Server View](#)
- [Natural Development Environment - Support of SYSLSO Command](#)



Note: The sections indicated for more information are contained in the *Natural Security* documentation, unless otherwise noted.

Maximum Number of Logon Attempts

The Administrator Services general option **Maximum Number of Logon Attempts** has been changed: its maximum value, which used to be "5", is now "9". The default value continues to be "5".

Remember that the setting of this option also applies to the following application programming interfaces: NSC---P, NSC--PH, NSC---SP, NSC----P and NSC--PHS.

Lock User Option

The Administrator Services general option **Lock User Option** provides an additional value "Z". It corresponds to "X" - in addition, the following applies: If the user ID corresponding to the value of the Natural system variable *INIT-USER is locked, the Natural session *cannot be started with any user ID* (neither with AUTO=ON nor with AUTO=OFF).

User Preset Values

The value for the user profile component **Change password after *nnn* days** can now be pre-defined in the **User Preset Values** section of Administrator Services.

Library Profiles - FDIC DBID Zero

In the Library File section of library profile, you can now specify 0 (zero) as the FDIC database ID: this means that the DBID value of the FDIC profile parameter will apply.

File/DDM Profiles - Copying With Links

The file/DDM maintenance functions *Copy File* and *Copy DDM Profile* provide the new option **With Links**. It allows you to also copy the links of libraries from the "old" file/DDM profile to the "new" one. Both functions allow you to select which links you wish to copy and which not.

Application Programming Interfaces (APIs)

The application programming interface NSCADM has been enhanced and can now be used to also process logon/countersign error records.

SECLOAD

The SECLOAD program for loading Natural Security data provides a new option **Expire passwords for loaded user profiles**. It can be used to enforce a password expiration for all loaded user profiles (user types A, P, M), which means that these users will have to change their passwords at the next logon.

Natural Development Environment - DDMs in Natural Server View

The display of DDMs in the Natural Server view in an Eclipse environment under Natural Security has been changed: DDMs are no longer represented as a separate node, but are now displayed as a group node under the library node. See *Protecting the Natural Server View* under *Protecting the Natural Development Environment in Eclipse*.

Natural Development Environment - Support of SYLSO Command

The use of the NaturalONE command SYLSO, which determines the library search order for private-mode libraries, can now be controlled by Natural Security. See *Protecting the Navigator View* under *Protecting the Natural Development Environment in Eclipse*.

Natural for zIIP

- [Natural zIIP Enabler Renamed](#)
- [CPU Time Limit in SRB Mode](#)

Natural zIIP Enabler Renamed

Natural zIIP Enabler products have been renamed as follows:

Old Name	New Name
Natural zIIP Enabler for Batch	Natural Batch for zIIP
Natural zIIP Enabler for CICS	Natural for CICS for zIIP
Natural zIIP Enabler for Com-plete	Natural for Com-plete for zIIP

CPU Time Limit in SRB Mode

When running zIIP-enabled under z/OS, the MT profile parameter applies separately to both TCB and SRB (zIIP) processing modes. If MT=0 is set in SRB mode, Natural uses the existing z/OS TCB time limit to avoid endless loops because there is no z/OS CPU time limit (for example, the JCL TIME parameter) for SRBs.

7 Enhancements of Natural Add-on Products for Special

Natural Version 9.1.1 Features

▪ Natural CICS Interface	32
▪ Natural SAF Security	33

This section describes changes and enhancements provided by Natural add-on products to support special features of Natural Version 9.1.1.

Natural CICS Interface

Natural CICS Interface Version 8.3.5 is available on z/OS platforms, from Natural Version 8.2.8 onwards.

This section describes the new features and changes of Natural CICS Interface Version 8.3.5.

- [Discontinued Support for Swap Pool](#)
- [New Terminal Command for Calling Quasi-Reentrant Subprograms](#)
- [Enhanced NTCICSP Macro Functionality](#)

Discontinued Support for Swap Pool

Natural CICS Interface Version 8.3.5 is available on z/OS platforms, from Natural Version 8.2.8 onwards.

This section describes the changes of Natural CICS Interface Version 8.3.5.

From Natural CICS Interface Version 8.3.5 onwards, the Natural swap pool is no longer supported on z/OS when running in the CICS OTE environment (threadsafe). The roll server must be used instead. The new error message NS56 indicates the error situation (see the *Messages and Codes* documentation).

New Terminal Command for Calling Quasi-Reentrant Subprograms

On z/OS, the new %P=SQ terminal command can be used in a Natural CICS running in the CICS OTE environment (threadsafe) to call quasi-reentrant user programs.

For this purpose, the supplied assembler program NCILINKQ must be installed in CICS as quasi-reentrant. See the relevant installation instructions described in *Installing Natural CICS Interface on z/OS* in the *Installation* documentation.

Enhanced NTCICSP Macro Functionality

The maximum value for the tolerance value of the `STORVIO` parameter has been increased from 255 to 16777215. See also `STORVIO` in the *Parameter Reference* documentation for further details.

Natural SAF Security

The enhancement provided with Natural SAF Security Version 8.2.7 is described in the following section.

Please refer to [Overview of Natural Add-On Product Versions](#) for the Zap solution required for this version.

SAF Error Recording

The **NSF Options** of Administrator Services provide a new option **SAF error recording**: Logon errors caused by an invalid user ID or invalid password specification are always logged by the external security system. This new option determines whether they are also logged by Natural Security, which means that corresponding Natural Security logon error records will be written.

8 Dropped Features

- Features Dropped with this Natural Version 36
- Features Dropped with a Future Natural Version 36

Features Dropped with this Natural Version

The following features or Natural add-on products are discontinued and no longer supported in Natural Version 9.1.1:

- [Discontinued Support for Natural for SQL/DS](#)
- [Discontinued Support for Natural for DL/I on z/VSE](#)

Discontinued Support for Natural for SQL/DS

Natural for SQL/DS is no longer delivered and supported.

Discontinued Support for Natural for DL/I on z/VSE

Natural for DL/I is no longer delivered and supported for z/VSE operating systems.

Features Dropped with a Future Natural Version

The following features will be discontinued and no longer supported in a future version of Natural:

- [Discontinued Support for Natural Telex Driver NATTLX](#)
- [Discontinued Support for Natural Swap Pool on z/OS](#)
- [Discontinued Support for Natural Net Data Driver NATNETTO](#)
- [Discontinued Support for z/VSE and BS/2000](#)

Discontinued Support for Natural Telex Driver NATTLX

The Natural Telex Diver NATTLX will no longer be available in a future version of Natural.

Discontinued Support for Natural Swap Pool on z/OS

The Natural swap pool will no longer be available on z/OS in a future version of Natural. The Natural Roll Server can be used instead.

Discontinued Support for Natural Net Data Driver NATNETTO

The Natural Net Data Driver NATNETTO will no longer be available in a future version of Natural.

Discontinued Support for z/VSE and BS/2000

Natural and Natural add-on products will no longer be supported on z/VSE and BS/2000 operating systems in a future version of Natural.

