

# **NaturalONE**

## **Release Notes**

Version 9.1.3

October 2021

This document applies to NaturalONE Version 9.1.3 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 © 2009-2021 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: ONE-RELNOTES-913-20210930**

## Table of Contents

Preface .....	v
1 About this Documentation .....	1
Document Conventions .....	2
Online Information and Support .....	2
Data Protection .....	3
2 What's New in Version 9.1.3? .....	5
Installation .....	6
Basic Functionality for Natural Application Development .....	6
Natural Tools and Utilities .....	7
Deploying Natural Applications .....	8
Eclipse-Independent Application Testing .....	8
Natural for Ajax / Ajax Developer .....	9
Optional Components .....	12
Documentation .....	12
Known Issues .....	13
3 What's New in Version 9.1.2? .....	15
Basic Functionality for Natural Application Development .....	16
Natural Tools and Utilities .....	17
Natural for Ajax / Ajax Developer .....	18
4 What's New in Version 9.1.1? .....	21
Using NaturalONE in Your Own Eclipse Environment .....	22
Installation .....	22
Basic Functionality for Natural Application Development .....	22
Deploying Natural Applications .....	24
Natural for Ajax / Ajax Developer .....	26
Natural Tools and Utilities .....	29
NaturalONE in a Citrix Environment .....	29



---

## Preface

---

These *Release Notes* pertain to the core functionality of NaturalONE Version 9.1, including Natural for Ajax and Ajax Developer. The following topics are covered:

<a href="#">What's New in Version 9.1.3?</a>
--

<a href="#">What's New in Version 9.1.2?</a>
--

<a href="#">What's New in Version 9.1.1?</a>
--

For important last-minute information, see the readme file that is provided with NaturalONE.



**Note:** The Release Notes for the NaturalONE components which can be installed optionally are provided separately. If available, they can be found in the documentation for the corresponding component.

---

# 1 About this Documentation

---

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

## Document Conventions

---

Convention	Description
<b>Bold</b>	Identifies elements on a screen.
Monospace font	Identifies service names and locations in the format <i>folder.subfolder.service</i> , 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 <https://documentation.softwareag.com>.

### Software AG Empower Product Support Website

If you do not yet have an account for Empower, send an email to [empower@softwareag.com](mailto: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.aspx](https://empower.softwareag.com/public_directory.aspx) and give us a call.

### **Software AG Tech Community**

You can find documentation and other technical information on the Software AG Tech Community website at <https://techcommunity.softwareag.com>. You can:

- Access product documentation, if you have Tech Community 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 What's New in Version 9.1.3?

---

■ Installation .....	6
■ Basic Functionality for Natural Application Development .....	6
■ Natural Tools and Utilities .....	7
■ Deploying Natural Applications .....	8
■ Eclipse-Independent Application Testing .....	8
■ Natural for Ajax / Ajax Developer .....	9
■ Optional Components .....	12
■ Documentation .....	12
■ Known Issues .....	13

## Installation

---

Software AG Designer 10.7, which includes NaturalONE, uses Eclipse Version 4.15. If you prefer to use NaturalONE in your existing Eclipse environment, see also *Using Your Own Eclipse* in the *Installation* documentation.

The selection of components during the installation has changed. For more information, see *Installing NaturalONE* in the *Installation* documentation.

### Deployment Package

After installing NaturalONE and applying all relevant fixes, you are now able to create a compressed package of NaturalONE for deployment on additional development stations. For more information, see *Preparing a Deployment Package* in the *Installation* documentation

## Basic Functionality for Natural Application Development

---

This section describes new features and enhancements in NaturalONE's basic functionality for Natural application development. It covers the following topics:

- [DDMs in the Server View](#)
- [List Natural Mainframe Objects in the Natural Server View](#)
- [ECHECK](#)

### DDMs in the Server View

The preference **Display DDMs in library** is no longer available. Displaying DDMs in the Natural server view has been enhanced in the following way:

For Natural Development (NDV) servers which are protected with Natural Security, all DDMs which are accessible to the current user in a specific library are shown in a **DDMs** group node of this library, regardless of whether the DDMs are public or protected. The **DDMs** system file node is no longer available in this case.

If the NDV server is not protected with Natural Security, the DDMs will either be displayed below the DDMs system file (Mainframe server or servers with FDDM) or in the **DDMs** group node of the libraries (for UNIX, OpenVMS or Windows environments without FDDM).

This new behavior is also described under *Working with DDMs* in section *Managing Objects Directly on a Natural Server*.

## List Natural Mainframe Objects in the Natural Server View

When a huge number of objects are contained in a library, the listing of these objects in the **Natural Server** view can take a long time. Natural for Mainframes Version 9.1.2 on z/OS provides a new hyperdescriptor that can significantly improve the database access required for this purpose. The installation of the hyperdescriptor is described in *Performance Aspects in NaturalONE in a Nutshell*.

## ECHECK

The `ECHECK` parameter is now supported in NaturalONE when parsing sources in the Natural source editor. When adding projects from an NDV server environment, the `ECHECK` parameter is also downloaded to the Natural project properties. This enhancement does currently not apply to NDV mainframe servers.

## Natural Tools and Utilities

---

This section describes new features and enhancements concerning Natural tools and utilities available in NaturalONE. It covers the following topics:

- [Debugger](#)
- [Natural Profiler](#)
- [Natural Data Browser](#)

### Debugger

The debugger has been enhanced to show the complete value of a large or dynamic variable of the type A, U or B. See *Display Options* in *Setting the Preferences* and *Variables View* in *Debugging Natural Applications* for further information.

In order to provide the variable chunk support for large and dynamic variables, a Natural server change is necessary. This means that the functionality is only available with the most current versions of the Natural Development (NDV) servers on Linux, Unix and Windows that correspond to NaturalONE Version 9.1.3.

## Natural Profiler

A new drop-down list box which is shown at the top of the **Hot Spots** page allows switching between different built-in display layouts. See *Viewing the Profiler Output > Hot Spots* in *Using the Natural Profiler* for further information.

The default layout that is initially used can be set in the Natural preferences. See *Profiler > Hot Spots* in *Setting the Preferences* for further information.

## Natural Data Browser

The data browser now supports Adabas protected files. See *Creating a Report Template* in *Using the Data Browser* for further details.

In addition, to use the maximum number of occurrences for periodic groups and multiple fields in Adabas files, a new preference has been introduced. For details see *Displaying the Properties for a Field* in *Using the Data Browser* and *Data Browser* in *Setting the Preferences* for further details.

## Deploying Natural Applications

---

This section describes new features and enhancements in the NaturalONE deployment area. It covers the following topics:

- [New Optional Batch Deploy in Predict](#)

### New Optional Batch Deploy in Predict

A new functionality has been added to Predict which allows you to deploy from a batch file. For more information, check *Managing Predict Components > Steps required in your Natural Project(s)*.

## Eclipse-Independent Application Testing

---

It is now possible to execute a Natural unit test bed with an Ant script outside the context of a NaturalONE/Eclipse environment. This is especially important for providing full DevOps support if you also want to execute test cases unattended in a lean command line environment. This extension will also simplify the integration of Natural unit test processing with continuous integration tools like Jenkins.

The functionality of writing Natural unit test cases is already covered by NaturalONE. However, this has now been extended with a new Natural unit test Ant Script wizard, which can be used to generate Ant based testing scripts. These scripts support several targets like *checkout* for checking out a test project or *unittest* for executing a Natural unit test bed.

For testing purposes, you can now also execute a testing Ant script inside NaturalONE via the Eclipse built in **Run As Ant Script** functionality. The results of a test run will be displayed in the **Console** view.

Refer to *Creating Ant Scripts to Run Unit Tests* in the Application Testing documentation for further details.

## Natural for Ajax / Ajax Developer

---

This section describes new features and enhancements in Natural for Ajax and Ajax Developer. It covers the following topics:

- Responsive NatLogon and NatDisconnect Pages Supported
- Bootstrap 4 Supported in Responsive Pages
- Support for Natural-specific Properties like `njx:natname` in Responsive Controls
- PAGEBODY Container obsolete for Responsive Controls
- New Template for Responsive Pages with Sidebar
- Major Enhancements of Responsive Forms
- BMOBILE:COL: visiblerop now supported
- Enhanced Testing Support for Responsive Controls
- New Responsive Containers: BMOBILE:SIDEBAR\*, BMOBILE:HORIZONTALBAR, BMOBILE:CONTENT
- Help IDs supported in Responsive Input Controls
- Enhanced Tooltip Support for Responsive Controls
- Page Pop-Ups Fit to Parent
- FIELD Control: New Value in Property `formautocomplete` Supported
- FIELD Control With New properties `onclickmethod` and `ondblclickmethod`
- RPIECHART With New Property `animateselection`
- Several Responsive Modal Enhancements

### Responsive NatLogon and NatDisconnect Pages Supported

Responsive and non-responsive NatLogon and NatDisconnect pages are now supported. In NaturalONE you can create your own custom NatLogon and NatDisconnect pages using the New layout wizard.

## Bootstrap 4 Supported in Responsive Pages

Bootstrap 4 is now supported for responsive controls. Bootstrap 4 is the default. If you still need to use Bootstrap 3, you can use the attribute `uselatestbootstrap` in `cisconfig.xml` to run all pages with Bootstrap 3 or use the property `uselatestbootstrap` in the NATPAGE control to run a single page with Bootstrap 3

See *Ajax Configuration* for details.

## Support for Natural-specific Properties like `njx:natname` in Responsive Controls

Most responsive controls now support Natural-specific properties like `njx:natname` in the same way as non responsive controls.

## PAGEBODY Container obsolete for Responsive Controls

The `PAGEBODY` tag is now obsolete for responsive controls. The templates for responsive pages do not contain the `PAGEBODY` tag anymore. Responsive pages with `PAGEBODY` tags are still supported but contain obsolete HTML code.

## New Template for Responsive Pages with Sidebar

The Layout Painter supports a new page template for development of responsive pages with sidebars. See also *Responsive Page Layout and Controls* for further details.

## Major Enhancements of Responsive Forms

A more flexible and lightweight `BMOBILE:FORM` container is now supported. The `BMOBILE-FORMGROUP` containers now supports horizontal and vertical forms. For the usage in bar controls - like the `BMOBILE:HORIZONTALBAR` and the `BMOBILE:SIDEBAR` - a `BMOBILE:FORMINLINE` container is supported. A `BMOBILE:FTEXTOUT` control has been added to support plain read-only text in forms.

## **BMOBILE:COL: visisbleprop now supported**

The `BMOBILE:COL` container now supports a `visisbleprop` property.



## Enhanced Testing Support for Responsive Controls

Most responsive containers and controls now support a `testtoolid` property.

## New Responsive Containers: `BMOBILE:SIDEBAR*`, `BMOBILE:HORIZONTALBAR`, `BMOBILE:CONTENT`

The new responsive containers `BMOBILE:SIDEBAR*`, `BMOBILE:HORIZONTALBAR` and `BMOBILE:CONTENT` support frequently used patterns for modern responsive pages.

Additional controls like `BMOBILE:TOGGLER`, `BMOBILE:SIDEBARGROUP`, `BMOBILE:BARTEXT` support corresponding functionality for flexible rendering.

## Help IDs supported in Responsive Input Controls

Responsive input controls like `BMOBILE:FFIELD` now support a `helpid` property in the same way as non-responsive controls.

## Enhanced Tooltip Support for Responsive Controls

Bootstrap 4 tooltip support is now used to render tooltips. The rendering can be customized via CSS style classes. All form controls now also support setting the tooltip text dynamically from within Natural. Use the property `titleprop` in the corresponding controls.

## Page Pop-Ups Fit to Parent

The file `cisconfig.xml` now supports the new settings `pagepopuponresize`, `pagepopuphorizontal` and `pagepopupvertical`. Use these settings to fit a page pop-up to its parent.

See *Ajax Configuration* for details.

## FIELD Control: New Value in Property `formautocomplete` Supported

The `formautocomplete` property of the `FIELD` and `BMOBILE:FFIELD` controls now supports the value `new-password`. In the current versions of Chrome, this can be used to prevent Chrome from autofilling form fields.

## FIELD Control With New properties onclickmethod and ondblclickmethod

Natural programs can now react to click and/or double click events. Refer to the description of the FIELD control properties for details.

## RPIECHART With New Property animateselection

Use the new RPIECHART property `animateselection` if you want to render the selected slice with a bigger radius (= move out effect).

## Several Responsive Modal Enhancements

A new BMOBILE:HELPMODAL dialog shows help texts for specified help IDs. All responsive modal dialogs - BMOBILE:MODAL, BMOBILE:INTMODAL, BMOBILE:HELPMODAL - are now draggable and resizable.

For BMOBILE:MODAL, the page URL can now be specified dynamically at runtime.

## Optional Components

---

New features are available with the following optional components. For detailed information on the new features, see the Release Notes in the documentation of the corresponding optional component.

### Placeholder

Placeholder. Add text here...

## Documentation

---

The *NaturalONE in a Nutshell* documentation has been enhanced. A new section *Performance Aspects* has been added, providing information on what actions and best practices can improve the performance.

## Known Issues

---

### Subclipse NullPointerException

If you are working with the SVN Repository Exploring Perspective or Views, it might happen that a dialog with a `NullPointerException` pops up. This problem has been observed especially, if you switch from the SVN perspective to the NaturalONE perspective.

This is a known Subclipse problem which is described in the following Subclipse issue: <https://github.com/subclipse/subclipse/issues/126>.

Even if it is annoying, you can ignore this exception.



# 3

## What's New in Version 9.1.2?

---

- Basic Functionality for Natural Application Development ..... 16
- Natural Tools and Utilities ..... 17
- Natural for Ajax / Ajax Developer ..... 18

## Basic Functionality for Natural Application Development

---

This section describes new features and enhancements in NaturalONE's basic functionality for Natural application development. It covers the following topics:

- [Enhanced RTL Language Support](#)
- [SSL Support](#)
- [Support Old Internal Data Area Format](#)
- [Customizable Coloring in the Map Editor](#)

### Enhanced RTL Language Support

The support for right-to-left (RTL) languages has been enhanced. In particular, the bidirectional settings such as layout orientation, visual order and Arabic shaping are now maintained on a per-project basis. As such, they can be exported to a Natural project file (.natural) together with the other project properties and persisted in a user's source repository. In addition, these settings are initialized from the current server settings if possible, in order to reduce the time and effort required for configuration.

This is reflected in modified options when setting NaturalONE preferences and/or changing the properties of Natural projects in local mode. Refer to *Regional Settings* in *Setting the Preferences* and *Regional Settings* in section *Changing the Project Properties* of *Managing Natural Projects* for further details.

### SSL Support

It is now possible to establish SSL-secured connections to Natural Development (NDV) servers (running on version 9.1.2 or above).

This is reflected in modified options when setting NaturalONE preferences and/or changing the properties of Natural projects in local or server mode. Refer to *Using SSL* for further details.

### Support Old Internal Data Area Format



**Note:** The following only applies when Natural for UNIX Version 9.1.2 and above or Natural for Windows Version 9.1.2 and above are being used as a development server.

During upload or update to the server, all types of data area sources (local, parameter and global) will no longer be converted into the old internal data format but will be saved as defined with the NaturalONE Source Editor. Therefore the option **Support old internal data area format** will be ignored. For details refer to *Options* in section *Natural* under *Setting the Preferences* for details.

## Customizable Coloring in the Map Editor

It is now possible to customize the colors of specific syntax elements displayed in the map editor. Refer to *Map Editor* under *Setting the Preferences* for details.

## Natural Tools and Utilities

The list of Natural tools and utilities now also comprises the following:

Tool	Platform
Adabas Event Replicator	Mainframe
Adabas Online System	Mainframe
Adabas Review	Mainframe
Adabas Statistics Facility	Mainframe
Natural Ajax Demos	Windows
Natural Security	All
Predict Application Audit	Mainframe
Predict Application Control	Mainframe
zIIP Statistics	Mainframe

A tool is only shown if the corresponding application is installed.

- [Security Validation](#)
- [Setting Filters](#)

### Security Validation

If an entry in the list of Natural tools and utilities derives from an XML member delivered by Software AG (which are named `SAG-*.XML`), it will only be displayed in the list of tools if Natural Security (if used) allows you to log on to the given library and execute the given command.

### Setting Filters

If you add your own tools to the list of the Natural tools and utilities, you may specify filters so that the tool is only listed if certain conditions are met.

For further information, see *Extend the List of Tools and Utilities*.

## Natural for Ajax / Ajax Developer

---

This section describes new features and enhancements in Natural for Ajax and Ajax Developer. It covers the following topics:

- [New Ajax Configuration Parameter `urlopenstreetmapgeocoder`](#)
- [AUTOCOMPLETE supports limiting the results shown in a drop-down box](#)
- [DATEINPUT2 with new Properties `stylevariant` and `displayprop`](#)
- [New Control REPORT2](#)
- [New Ajax Configuration Parameter `maxserverlogage`](#)
- [Support for editable columns in BMOBILE:SIMPLEGRID](#)
- [ROWTABLEAREA2 supports Export to Clipboard and File](#)
- [ROWTABLEAREA2 supports Icon Bars](#)
- [Layout Generation Enhancements](#)
- [Switch off Server Logging](#)
- [New Responsive Control BMOBILE:ICONCOL](#)
- [Responsive Modal Controls](#)
- [Icon Support in Responsive Controls](#)
- [Layout Painter - Error Property Selection](#)
- [Ajax Developer Supported in Natural Navigator View](#)
- [Grouping of Objects Supported for Ajax Enabled Natural Projects](#)

### New Ajax Configuration Parameter `urlopenstreetmapgeocoder`

You can now adapt the third party geocoder URL in the Ajax configuration file if needed.

### AUTOCOMPLETE supports limiting the results shown in a drop-down box

The AUTOCOMPLETE control now enables you to limit the results shown in the drop-down box. The AUTOCOMPLETE control now also has a new property `maxresults`. The FIELD control now has a new property `autocompleteresultsref`.

### DATEINPUT2 with new Properties `stylevariant` and `displayprop`

DATEINPUT2 now supports the properties `stylevariant` and `displayprop` in the same way as the FIELD control.



## **New Control REPORT2**

The REPORT2 control supports PDF report generation in responsive and non-responsive design. In difference to the REPORT control, it does not require to additionally render the data in the HTML pages.

## **New Ajax Configuration Parameter maxserverlogage**

Automatic cleanup of *ServerLog\*.log* files is now supported. You can configure the maximum storage age of *ServerLog\*.log* files in days in the Ajax configuration file.

## **Support for editable columns in BMOBILE:SIMPLEGRID**

BMOBILE:SIMPLEGRID now fully supports editable columns also on small devices.

## **ROWTABLEAREA2 supports Export to Clipboard and File**

In ROWTABLEAREA2, all or just the selected items can now be copied to the clipboard or exported to a file. See *Export to Clipboard and File* in the description of the ROWTABLEAREA2 control grid for further details.

## **ROWTABLEAREA2 supports Icon Bars**

ROWTABLEAREA2 supports the new controls ICONBAR, ICONBARLINE, TOCLIPBOARDICON, TOFILEICON and BLOCKSCROLLINGBAR. See *Icon Bars* in the description of the ROWTABLEAREA2 control grid for further details.

## **Layout Generation Enhancements**

Performance of Layout generation has been improved. Also the analysis of generation errors has been simplified. See the new attribute `htmlgeneratorlog` in the *Ajax Configuration* section.

## **Switch off Server Logging**

You can now switch off writing log information to the server log. See `loglevel` in the *Ajax Configuration* section.

## **New Responsive Control BMOBILE:ICONCOL**

BMOBILE:SIMPLEGRID now supports icon columns. See BMOBILE:ICONCOL for details.

## **Responsive Modal Controls**

A set of responsive modal controls has been added:

- BMOBILE:INTMODAL,
- BMOBILE:INTMODALHEADER,
- BMOBILE:INTMODALBODY,
- BMOBILE:INTMODALFOOTER.

## **Icon Support in Responsive Controls**

Many responsive controls now support icons as values for name/nameprop or as value for other text based properties. For examples see the Natural for Ajax Demos.

## **Layout Painter - Error Property Selection**

On double-click in the **Problems** view now not only the control but also the erroneous property is selected in Layout Painter.

## **Ajax Developer Supported in Natural Navigator View**

Ajax functionality is now supported in the Natural Navigator View.

## **Grouping of Objects Supported for Ajax Enabled Natural Projects**

The grouping of objects by object type is now also supported for Ajax enabled projects.

# 4 What's New in Version 9.1.1?

---

▪ Using NaturalONE in Your Own Eclipse Environment .....	22
▪ Installation .....	22
▪ Basic Functionality for Natural Application Development .....	22
▪ Deploying Natural Applications .....	24
▪ Natural for Ajax / Ajax Developer .....	26
▪ Natural Tools and Utilities .....	29
▪ NaturalONE in a Citrix Environment .....	29

## Using NaturalONE in Your Own Eclipse Environment

---

The easiest and recommended way to install NaturalONE is to make use of the Software AG Installer. However, you may prefer to make use of your already existing Eclipse environment. A short description how to achieve this can be found in the section *Using Your Own Eclipse* in the *Installation* documentation.

## Installation

---

The Software AG Designer 10.3, which includes NaturalONE, uses Eclipse Version 4.7.3a. If you prefer to use NaturalONE in your existing Eclipse environment, Eclipse Version 4.7.3a is required. In addition, Java 1.8 is required. See also *Using Your Own Eclipse* in the *Installation* documentation.

### Support of Windows 7 Professional Edition - x86-64

NaturalONE Version 9.1.1 under Windows 7 Professional Edition - x86-64 will be supported until January 31st, 2020.

## Basic Functionality for Natural Application Development

---

This section describes new features and enhancements in NaturalONE's basic functionality for Natural application development. It covers the following topics:

- [Renamed and Modified Option in the Runtime Execution Preferences](#)
- [Clean Project on Update from Repository](#)
- [File Transfer](#)

### Renamed and Modified Option in the Runtime Execution Preferences

The option **Expand Natural server view on reconnect** has been enhanced and renamed to **Restore Natural Server View**.

For further details please refer to *Runtime Execution* in *Setting the Preferences*.

## Clean Project on Update from Repository

When a Natural project in the workspace is updated from a repository location the *.natural* file of the project may also be modified.

Depending on the setting of the preference **Update project properties automatically on .natural file modification** in the Natural Project preferences, the new properties coming with the updated *.natural* file are propagated to the project and will immediately come into effect.

On changes of the runtime properties, the project's server environment may possibly no longer be in synch with the project's builder information, e.g. Natural objects existing in the project in the workspace may be missing in the new server environment. This may lead to Natural errors on the project's build, update or upload functions. Executing the function **Clean** function in a project ensures that the project in the workspace will be in synch with the server environment.

The **Clean** function is now executed automatically for a project when one of the following properties is changed in the *.natural* file:

- Host Name
- Port Number
- Session Parameters
- FUSER

### Prerequisite

The preference **Update project properties automatically on .natural file modification** must be checked in the Natural Project preferences.

### Properties Dialog

The automatic **Clean** of a project is not performed when the projects server environment is modified using the **Properties** dialog. Here the user must take care on his own and issue the **Clean** function for the project manually when the modifications have been done.

For further details on the **Clean** function see also *Understanding the Behavior of the Natural Builder, Builder* in the Natural preferences and *Modifying Objects in the Natural Environment or in the Repository*.

## File Transfer

NaturalONE now supports File Transfer. This functionality is currently only available when executing applications on mainframe-based NDV (Natural Development) servers.

Refer to *File Transfer* in section *Setting the Preferences* for details.

## Deploying Natural Applications

---

This section describes new features and enhancements in the NaturalONE deployment area. It covers the following topics:

- [Switching the Security Mode](#)
- [Using Project References](#)
- [Scratching Objects on the Server](#)
- [Writing a History Log File](#)
- [Creation of SYSOBJH Workplans](#)
- [Recognition of the FNAT SYSTEM Library](#)
- [Handling of Upload Errors](#)
- [Performance of the NaturalONE Deployment Run](#)
- [Starting the Deployment from the Command Line](#)

### Switching the Security Mode

The security mode used in the NaturalONE deployment wizard can now be switched independently from the mode set in the Natural server environment. Refer to the description given under *Steplibs* in the section *Using the Deployment Wizard for Natural Applications* for details.

### Using Project References

References between NaturalONE projects can now be handled also in the NaturalONE deployment scripts. See section *Project References* in the section *Using the Deployment Wizard for Natural Applications* and *Project References Handling* for detailed information.

## Scratching Objects on the Server

The NaturalONE deployment scripts can now record the deletion of objects in the workspace and scratch the corresponding objects on the server during the next deployment run. See the description for the option **Scratch server objects** description under *General Settings* in the section *Using the Deployment Wizard for Natural Applications*.

## Writing a History Log File

The NaturalONE deployment scripts can be enabled to write history log files during processing. For more information refer to *Logging* in the section *Using the Deployment Wizard for Natural Applications*.

## Creation of SYSOBJH Workplans

The NaturalONE deployment scripts can be enabled to generate SYSOBJH workplans which can be used to replay the actions performed by the NaturalONE deployment scripts in pure server environments. For more information refer to *Logging* in the section *Using the Deployment Wizard for Natural Applications*.

## Recognition of the FNAT SYSTEM Library

The NaturalONE deployment scripts can now handle the special file number "-2" which can be used to refer to the SYSTEM library in FNAT. See *Steplibs* in the section *Using the Deployment Wizard for Natural Applications* for details.

## Handling of Upload Errors

Upload errors that occur during the NaturalONE deployment run are now handled similar to catalog or stow errors so that the corresponding object is marked for a retry during the next deployment run.

## Performance of the NaturalONE Deployment Run

During NaturalONE deployment runs with incremental mode enabled the objects that need to be processed have to be calculated depending on the scope level that has been selected (see *Controlling the Scope of Files to be Processed* for details). The performance of these calculations has been enhanced, especially for large applications with many objects and especially for the initial (first) deployment run.

## Starting the Deployment from the Command Line

In addition to the already required JAR files for running the deployment script, another new JAR file is required now. For more information refer to *Prerequisites* in the section *Starting the Deployment from the Command Line*.

## Natural for Ajax / Ajax Developer

---

This section describes new features and enhancements in Natural for Ajax and Ajax Developer. It covers the following topics:

- [Responsive Tab Controls](#)
- [BMOBILE:ALERT](#) with new Property duration
- [BMOBILE:PANEL](#) with new Property foldedprop
- [BMOBILE:FORMAREA](#) with new Properties legendprop, visibleprop and invisiblemode
- [BMOBILE:FORMAREA](#) with new Properties textid and nameprop
- [BMOBILE:FORMGROUP](#) with new Properties visibleprop and invisiblemode
- [BMOBILE:CHECKBOX](#) with new properties
- [New Responsive Control BMOBILE:RADIOBUTTON](#)
- [New Responsive MEDIA Controls](#)
- [New Responsive Side Navigation Controls](#)
- [BMOBILE:NAVBAR](#) with new Property brandstraighttext
- [BMOBILE:SIMPLEGRID](#) with Editable Columns
- [DATEINPUT2: Custom Holiday Rendering](#)
- [DATEINPUT2](#) with new Property popuponF4F7
- [DATEINPUT](#) and [DATEINPUT2](#) support Property testtoolid
- [NaturalAjax Samples](#)
- [PDF Reports - Upgrade to Version FOP 2.2](#)
- [CSVCOLUMN](#) supports Properties njx:natname and njx:natstringtype
- [Responsive Style Guide](#)

### Responsive Tab Controls

A set of responsive tab controls has been added:

- [BMOBILE:TABPANE](#),
- [BMOBILE:VERTICALTABPANE](#),
- [BMOBILE:TAB](#),
- [BMOBILE:TABSUBPAGES](#),
- [BMOBILE:VERTICALTABSUBPAGES](#),
- [BMOBILE:STRAIGHTTAB](#),



■ **BMOBILE:PAGER.**

**BMOBILE:ALERT with new Property duration**

For the BMOBILE:ALERT control, you can now define the duration after which the alert box will disappear.

**BMOBILE:PANEL with new Property foldedprop**

For the BMOBILE:PANEL container, you can now control the folded state dynamically from your Natural program.

**BMOBILE:FORMAREA with new Properties legendprop, visibleprop and invisiblemode**

For the BMOBILE:FORMAREA container, you can now control the visible state and the name of the legend dynamically from your Natural program.

**BMOBILE:FORMAREA with new Properties textid and nameprop**

For the BMOBILE:FORMAREA container, you can now dynamically define the name from your Natural program and from multilanguage files.

**BMOBILE:FORMGROUP with new Properties visibleprop and invisiblemode**

For the BMOBILE:FORMGROUP container, you can now control the visible state and the name of the legend dynamically from your Natural program.

**BMOBILE:CHECKBOX with new properties**

Some advanced properties have been added to the BMOBILE:CHECKBOX control.

**New Responsive Control BMOBILE:RADIOBUTTON**

A responsive radio button control BMOBILE:RADIOBUTTON is now available.

## **New Responsive MEDIA Controls**

The responsive controls BMOBILE:VIDEO, BMOBILE:MEDIAUPLOAD and corresponding sub-controls have been added to integrate and upload media objects.

## **New Responsive Side Navigation Controls**

The controls BMOBILE:SIDENAV, BMOBILE:NAVTREE and BMOBILE:SIDENAVCONTENT support the implementation of responsive side navigation using a responsive navigation tree.

## **BMOBILE:NAVBAR with new Property brandstraighttext**

For the BMOBILE:NAVBAR control, you can now set text and images as value of the brandprop property. Via the new property brandstraighttext you can distinguish between the representation.

## **BMOBILE:SIMPLEGRID with Editable Columns**

The BMOBILE:SIMPLEGRID control now supports editable columns. See the corresponding sample in the Natural Ajax Demos for details.

## **DATEINPUT2: Custom Holiday Rendering**

Support to render custom holidays in different style has been added to the DATEINPUT2 control. For details, please refer to the new properties HOLIDAYS\* and the corresponding sample in the Natural Ajax Demos.

## **DATEINPUT2 with new Property popuponF4F7**

For the DATEINPUT2 control, you can now customize whether or not the calendar should open on using the F4 or F7 key.

## **DATEINPUT and DATEINPUT2 support Property testtoolid**

The DATEINPUT and DATEINPUT2 controls now support the property testtoolid.

## **NaturalAjax Samples**

The samples now contain an additional user interface component with performance hints for non-responsive layouts and containers.

## PDF Reports - Upgrade to Version FOP 2.2

FOP 2.2. is now used for the PDF report generation in Natural for Ajax. This version requires more Java memory. When using this feature you might have to increase the configuration settings for Java memory in your web application server.

For details concerning Java memory settings, please refer to the documentation of your web application server.

## CVSCOLUMN supports Properties `njx:natname` and `njx:natstringtype`

The CVSCOLUMN control now supports the properties `njx:natname` and `njx:natstringtype`.

## Responsive Style Guide

For responsive pages a style guide is now available. You find the latest version in the NaturalAjaxDemos NaturalONE project.

## Natural Tools and Utilities

---

The new SYSUTIL utility enables you to start selected Natural tools and utilities from NaturalONE. In general, it starts character based tools on the server side. Additionally, it offers new rich GUI interfaces to the SYSEXT and SYSEXV utilities and a rich GUI tool to retrieve error messages.

The list of tools provided in SYSUTIL can be extended so that it also shows your own tools and applications.

For detailed information see *Using Natural Tools and Utilities* in the *Using NaturalONE* documentation.

## NaturalONE in a Citrix Environment

---

NaturalONE can be installed and is supported running under Windows Remote Desktop Services on all from Software AG supported Windows Server Platforms allowing parallel user access via Windows remote desktop connections. NaturalONE is also intended to be installed and to run on Citrix Xenapp environments. However issues caused by NaturalONE that are related to the Citrix Xenapp environment or its configuration need to be reproduced under Windows Remote Desktop Services on a currently supported Windows Server platform first before further analysis can take place.

