

NaturalONE

Release Notes

Version 9.1.4

October 2021

This document applies to NaturalONE Version 9.1.4 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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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:

What's New in Version 9.1.4?
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What's New in Version 9.1.3?
--

What's New in Version 9.1.2?
--

What's New in Version 9.1.1?
--

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

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Document Conventions

Convention	Description
Bold	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 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 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 9.1.4

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Security

- [Long User Ids](#)
- [JDOM Vulnerability](#)

Long User Ids

In order to support security systems such as LDAP it is now possible to add up to 32 characters in the User ID field of the Map Environment Dialog. If such a configuration is in place the entered 'Login-Id' will be mapped on the server side to the corresponding 8 Byte User Id. In all other scenarios the normal User Id must be entered.

JDOM Vulnerability

The version of JDOM included in NaturalONE 9.1.4 contains the following vulnerability:

An XXE issue in SAXBuilder in JDOM through 2.0.6 allows attackers to cause a denial of service via a crafted HTTP request.

<https://nvd.nist.gov/vuln/detail/CVE-2021-33813>

Within NaturalONE the vulnerable functionality from jdom 2.06 has been disabled. There are no functional differences to be experienced by the user.

For users who are running Natural and Natural for Ajax on different machines we highly recommend securing the Natural screen exchange by setting "Use SSL" in the session configuration. A secure connection is then established between Natural for Ajax and the Natural Web I/O Interface server that prevents attackers from exploiting this vulnerability. For more information see the documentation of Natural for Ajax on [Empower](#), *Natural for Ajax > Release Notes > Security*.

Enhancements

This section describes the new features for the Code Generation and Natural Construct components in version 9.1.4. The following topics are covered:

- [Batch Model Support](#)

Batch Model Support

NaturalONE now supports the Batch Model of Natural Construct Code Generation. It allows to generate standardized batch applications using the new menu item **BATCH** of the sub menu **Code Generation > New Using Construct Model**.

For further details, see *Code Generation > Natural Construct Generation > Batch Wizard*

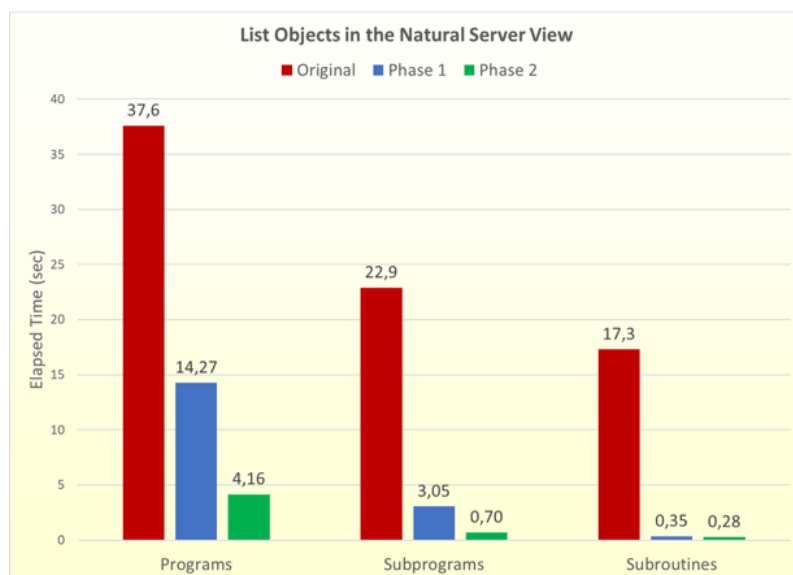
Basic Functionality for Natural Application Development

- [List Natural Mainframe Objects in the Natural Server View Using the Hyperdescriptor](#)
- [List Natural Mainframe Objects in the Natural Server View Using Filters](#)

List Natural Mainframe Objects in the Natural Server View Using the Hyperdescriptor

When a library contains a huge number of objects, listing these objects in the Natural Server view can take a long time. As of Natural for Mainframes version 9.1.2 on z/OS, a hyperdescriptor has been introduced that can significantly improve the database access required for this purpose (phase 1). As of NaturalONE version 9.1.4 and Natural for Mainframes version 9.1.2 CF4, the performance has been improved even further (phase 2).

The following image shows the elapsed times of the NDV server component. The library contains in total about 15,000 objects, including 10,000 programs, 1,500 subprograms, and 100 subroutines. Phase 1 and phase 2 use the hyperdescriptor.

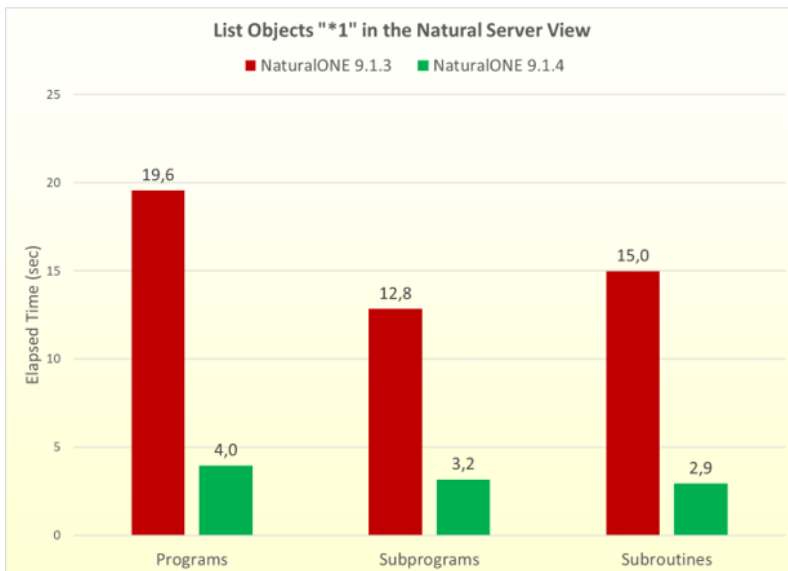


The installation of the hyperdescriptor is described in *NaturalONE in a Nutshell > Performance Aspects > Improve Mainframe Access*.

List Natural Mainframe Objects in the Natural Server View Using Filters

In previous versions of NaturalONE a shorter response time could be achieved by using a filter with a fix prefix such as "A*". With NaturalONE 9.1.4 any filter can be used to reduce the response time.

The following image shows a test of elapsed times for the NDV server component. The library contains a total of about 15,000 objects. The filter "*1" lists all objects ending with "1", which delivers 705 of 10,000 programs, 101 of 1,500 subprograms, and 5 of 100 subroutines. For the subroutines, the long names must be determined, which also costs some time. Mind, this test was performed without using a hyperdescriptor. The reduction of elapsed time can be reduced even more by installing a hyperdescriptor.



Changes to the UIs

- [Project Explorer View](#)

- [Natural Navigator](#)

Project Explorer View

In the Natural perspective, the deprecated Navigator view has been replaced by the Project Explorer view. The Project Explorer view supports all NaturalONE context menus and toolbar commands that were formerly supported by the Navigator view.

Natural Navigator

The Natural Navigator view has been enhanced:

- The former 'character' tool bar buttons have been replaced with new icons
- The context menu items **Testing**, **Business Services** and **Code Generation** are now also available in the Natural Navigator view.

Natural Tools and Utilities

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

- [Natural Profiler Rich GUI](#)

Natural Profiler Rich GUI

The Natural Tools and Utilities in NaturalONE offers a new rich GUI interface for the Natural Profiler. The Natural Profiler page lists all Profiler resources of a given library. For a selected Profiler resource, the properties and statistics of the profiling are displayed. Functions are available for consolidate or evaluate Profiler data, to analyze monitored programs, or to delete a resource file.

For more information, see *Using NaturalONE > Using Natural Tools and Utilities > Rich GUI Interface of the Natural Profiler*.

Natural for Ajax / Ajax Developer

- [Edge Chromium Browser](#)
- [Bootstrap Icons Library](#)
- [New Responsive Controls: BMOBILE:COMBOFIX, BMOBILE:COMBODYN](#)
- [New Responsive Dropdown Controls](#)
- [Responsive Controls with new Properties straighttext](#)
- [Responsive Controls with new Properties titlestraighttext](#)
- [BMOBILE:SIMPLEGRID: Server-Side Scrolling and Sorting](#)
- [BMOBILE:FFIELD: new property withtogglepassword](#)
- [ITR with New Property inline](#)
- [REPORT and REPORT2 Controls with New Property nameprop](#)

Edge Chromium Browser

With this version of Natural for Ajax the Edge Chromium Browser is now supported.

Bootstrap Icons Library

The Bootstrap Icons Library is now part of the Natural for AJAX product. It can be used in responsive and non-responsive controls in different ways. See section *Working with Icons*.

New Responsive Controls: BMOBILE:COMBOFIX, BMOBILE:COMBODYN

The `BMOBILE:COMBOFIX` and `BMOBILE:COMBODYN` are light-weight selection controls.

For details, see section *Natural for Ajax > Responsive Page Layout and Controls > Responsive Controls*

New Responsive Dropdown Controls

The controls `BMOBILE:DROPDOWN`, `BMOBILE:DROPDOWNLIST`, `BMOBILE:DROPDOWNHEADER`, `BMOBILE:DROPDOWNITEM`, `BMOBILE:DROPDOWNSEPARATOR` support various dropdown functionality such as dropdown menus and dropdown forms.

For details, see section *Natural for Ajax > Responsive Page Layout and Controls > Responsive Controls*

Responsive Controls with new Properties straighttext

All responsive controls with a `name/nameprop` property now also support a `straighttext` property. Via this property, the name value can be rendered either as html or as straight text.

Responsive Controls with new Properties titlestraighttext

All responsive controls with a `title/titleprop` property now also support a `titlestraighttext` property. Via this property, the tooltips can be rendered either as html or as straight text.

BMOBILE:SIMPLEGRID: Server-Side Scrolling and Sorting

The responsive grid `BMOBILE:SIMPLEGRID` now supports Server-Side Scrolling and Sorting.

BMOBILE:FFIELD: new property withtogglepassword

For password fields you can now add an icon to toggle the password visibility.

ITR with New Property inline

ITR controls now support inline rendering via the new `inline` property. This improves the rendering when zooming pages in Google Chrome or Edge Chromium browsers. See section *Natural for Ajax > Working with Containers > Positioning of Controls inside a Container > ITR in Google Chrome and Edge Chromium*.

REPORT and REPORT2 Controls with New Property nameprop

The `REPORT` and `REPORT2` controls now also support to set the name dynamically at runtime via the property `nameprop`.

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What's New in Version 9.1.3?

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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.

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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.

5 What's New in Version 9.1.1?

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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.

