

# **Natural for Ajax**

## **Release Notes**

Version 9.1.4

October 2021

---

This document applies to Natural for Ajax 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.

Copyright © 2007-2021 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: NJX-RELNOTES-914-20210925**

## Table of Contents

1 About this Documentation .....	1
Document Conventions .....	2
Online Information and Support .....	2
Data Protection .....	3
2 Release Notes .....	5
Additional Product Information .....	6
Prerequisites .....	6
Security .....	6
New Features in Version 9.1.4 .....	7
New Features in Version 9.1.3 .....	9
New Features in Version 9.1.2 .....	12
New Features in Version 9.1 .....	15



# 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 Release Notes

---

■ Additional Product Information .....	6
■ Prerequisites .....	6
■ Security .....	6
■ New Features in Version 9.1.4 .....	7
■ New Features in Version 9.1.3 .....	9
■ New Features in Version 9.1.2 .....	12
■ New Features in Version 9.1 .....	15

## Additional Product Information

---

Beside this product documentation, additional product information is available at the following places:

- The Knowledge Center at <https://empower.softwareag.com/> (for registered users only).
- The Natural for Ajax discussion forum at <http://tech.forums.softwareag.com/techjforum/forums/list.page>.

## Prerequisites

---

For detailed information on the supported operating systems, application servers, web containers, web browsers, and other prerequisites, see *System Requirements*.

## Security

---

This section covers important security information.

- [JDOM Vulnerability](#)
- [NEWSFEED Control Deprecated](#)

### JDOM Vulnerability

The version of JDOM included in Natural for Ajax 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>

Natural for Ajax uses the vulnerable SAXBuilder class only for XML created internally in the Natural and/or Natural for Ajax products. It switches off Entity expansion in all places where possible. Consequentially, the vulnerability does not apply, except for one area that needs to be pointed out:

When a Natural screen is exchanged between the Natural Web I/O server and the Natural for Ajax java framework in the application server, the Natural for Ajax java framework will load the XML with Entity expansion switched on.

However, the loaded XML is created from within the Natural/NWO server internally - it is not an external XML file. The vulnerability is only exposed should it be possible to tamper this XML during the exchange between Natural and Natural for Ajax.

In local environments, i.e. when Natural and Natural for Ajax are running on the same machine, this is not the case. An example, in which the vulnerability would not be exposed, is when running NaturalONE with the local runtime and the local Tomcat server.

When running Natural and Natural for Ajax on different machines we highly recommend securing this 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.

### **NEWSFEED Control Deprecated**

The NEWSFEED control is now deprecated. It requires *rome-0.9.jar*. The *rome-0.9.jar* is not packaged with Natural for Ajax anymore. The *rome-0.9.jar* uses JDOM, which in the current versions has the vulnerability as described in the previous section.

## **New Features in Version 9.1.4**

---

This section describes new features and enhancements in Natural for Ajax which have been added with this release of Natural for Ajax.

- [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 *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 *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 *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`.

## **New Features in Version 9.1.3**

---

This section describes new features and enhancements in Natural for Ajax which have been added with this release of Natural for Ajax.

- 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
- Enhanced Tooltip Support for Responsive Controls
- BMOBILE:COL: visisbleprop now supported
- Enhanced Testing Support for Responsive Controls
- New Responsive Containers: BMOBILE:SIDEBAR\*, BMOBILE:HORIZONTALBAR, BMOBILE:CONTENT
- Help IDs supported in Responsive Input Controls
- Page Pop-Ups Fit to Parent
- FIELD Control: New Value in Property `formautocomplete` Supported
- FIELD Control With New properties `onclickmethod` and `ondbclickmethod`
- RPIECHART With New Property `animateselection`
- Several Responsive Modal Enhancements

- [Natural Web I/O Pages Support Additional JavaScript file](#)

## Responsive NatLogon and NatDisconnect Pages Supported

Responsive and non-responsive NatLogon and NatDisconnect pages are now supported.

## 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.

## 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.

## BMOBILE:COL: visibleprop now supported

The `BMOBILE:COL` container now supports a `visibleprop` 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.

## 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.

## Natural Web I/O Pages Support Additional JavaScript file

You can add own JavaScript to Natural Web I/O pages in a file *usernaturunicscript.js*. See section *Natural Web I/O Style Sheets* for details.

## New Features in Version 9.1.2

---

This section describes new features and enhancements in Natural for Ajax which have been added with this release of Natural for Ajax.

- [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](#)

### **New Ajax Configuration Parameter `urlopenstreetmapgeocoder`**

You can now adapt the third party geocoder URL in the Ajax configuration file if needed. See *Ajax Configuration* for details.

### **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. See *Ajax Configuration* for details.

### **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 *Generating HTML Pages Using the Command Line* and 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.

## New Features in Version 9.1

---

This section describes new features and enhancements in Natural for Ajax which have been added with this release of Natural for Ajax.

- [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](#) now supports Properties njx:natname and njx:natstringtype
- [Responsive Style Guide](#)
- [Standalone SWT Client with Java Web Start](#)
- [Password Length 128](#)

### 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.

### **CSVCOLUMN now 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.

### **Standalone SWT Client with Java Web Start**

The standalone SWT Client, which is based on Java Web Start, is not part of the delivery anymore. Until October 2019 you can request the client in case you require it.

### **Password Length 128**

Natural for Ajax now supports a password length of 128 for Natural servers which also support a password length of 128.