5 software AG

NaturalONE

Release Notes

Version 8.2.7

March 2013

NaturalONE

This document applies to NaturalONE Version 8.2.7.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

Table of Contents

Preface

These *Release Notes* pertain to the core functionality of NaturalONE Version 8.2. The following topics are covered:

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 What's New in Version 8.2.1?

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:

- Restore of the Natural Server View after Startup
- Natural Builder
- Project and Library Properties
- Background Color for Protected Lines
- Occurrences of a Selected Variable in the Source Editor
- Time Stamp Conflicts in the Natural Environment
- Console Output for Check, Stow and Catalog Commands
- Downloading Required Sources when Debugging
- Showing the Natural Stack when Debugging
- Accessing Natural Studio's Dialog Editor from the Natural Server View

Restore of the Natural Server View after Startup

The **Natural Server** view is no longer restored during the start of the Software AG Designer. It is now restored after the Designer has been started. See also *Restore of the Natural Server View* in *Using NaturalONE*.

Natural Builder

The behavior of the Natural builder has changed in such a way that all changes within the current project are now automatically detected by the builder. It is no longer required that the Eclipse-specific **Build Automatically** command is enabled for this purpose. See also *Understanding the Behavior of the Natural Builder* in *Using NaturalONE*.

Project and Library Properties

The information that is provided on the different property pages of the project properties has been rearranged. For example, all parser options are now available on the **Parser** page. In addition, the top-level page of the project properties now informs you whether the Natural project has been added from a protected or unprotected Natural environment. See *Changing the Project Properties* in *Using NaturalONE*.

When Natural Security is active, a **Security** node is now shown in the library properties. This node also includes the **Steplibs** page which was already available with previous versions. As of this version, it is also possible to define parser and runtime settings for a library which is protected by Natural Security. These settings override the corresponding Natural profile parameters in the project properties. See *Changing the Library Properties* in *Using NaturalONE*.

Background Color for Protected Lines

A background color is now shown for protected lines. The Natural source header consists of protected lines, and most lines in a source that has been generated by Construct or by the Code Generation component of NaturalONE are protected lines. See also the following sections in the *Using the Natural Editors* part of *Using NaturalONE*:

■ *Source Header*

■ *Protected Lines in Sources Generated by Construct or Code Generation*

The background color for the protected lines can be changed in the Natural preferences. See *Syntax Coloring* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Occurrences of a Selected Variable in the Source Editor

In the Natural preferences, you can now specify that all occurrences of a selected variable are to be marked in the source editor. This is enabled by default. See *Mark Occurrences* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Time Stamp Conflicts in the Natural Environment

In the Natural preferences, you can now specify whether the time stamp in the Natural environment is to be checked when a source is uploaded from the workspace to the Natural environment. You can also specify that a dialog is to appear in case of a time stamp conflict in which you can decide whether to proceed with the upload or not. See *Natural > Builder* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Before updating the Natural environment, it is now possible to compare the time stamps of the sources in the workspace with the time stamps of the sources in the Natural environment. All time stamp conflicts are collected in the new **Time Stamp Conflicts** view.

It is also possible to write the time stamp conflicts of a project to a log file or, if no conflict occurs, to update all objects of the project using command line arguments.

For detailed information, see *Checking the Time Stamps in the Natural Environment* in *Using NaturalONE*.

Console Output for Check, Stow and Catalog Commands

In the Natural preferences, you can now specify that status information about success or failure is to be shown in the **Console** view each time you check, stow or catalog an object in the **Natural Server** view. See *Runtime Execution > Server View* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Downloading Required Sources when Debugging

If a source cannot be found in the workspace, a dialog box appears now asking whether you want to download the object from the Natural environment. See also *Debugging Natural Applications* in *Using NaturalONE*.

Showing the Natural Stack when Debugging

A new view is available in the **Debug** perspective which shows the current contents of the Natural stack. See *Natural Stack View* in the section *Debugging Natural Applications* which is part of *Using NaturalONE*.

Accessing Natural Studio's Dialog Editor from the Natural Server View

When Natural Studio is installed on the same machine as NaturalONE, you can invoke Natural Studio from the **Natural Server** view and then edit the dialog directly in Natural Studio, using the dialog editor. In order to use this functionality, special prerequisites apply. For detailed information, see *Working with Dialogs* in *Using NaturalONE*.

Natural for Ajax / Ajax Developer

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

- Edit Masks
- Multi Language Management in Workplace Applications
- Binary Large Objects (BLOBs)
- Hyperlinks to Documents
- Uploading and Downloading Files

- Deployment

Edit Masks

Edit masks can now be specified for additional data types. In addition to the edit masks for numeric fields, which were supported with previous versions, edit masks are now also supported for alphanumeric, date, time, and logical fields. See *Usage of Edit Masks* in *Natural for Ajax*.

For compatibility reasons, the functionality from previous versions is still supported. For a description of the previous functionality, see *Usage of Edit Masks* in the appropriate version of the NaturalONE documentation. You can find this in Empower, Software AG's global extranet, at *https://empower.softwareag.com/*.

Multi Language Management in Workplace Applications

A new chapter is available providing some hints for multi language management in workplace applications which contain Natural layout pages. See *Multi Language Management in Workplace Applications* in *Natural for Ajax*.

Binary Large Objects (BLOBs)

Using the new NJX:OBJECTS control, it is now possible make assets that are contained in Natural binary variables (BLOBs) available to controls on the web page.

Hyperlinks to Documents

Using the new NJX:DOCUMENTLINK control, it is possible to embed hyperlinks into layouts which open a document in a pop-up dialog. This is also supported for documents contained in Natural binary variables which are provided by the NJX:OBJECT control.

Uploading and Downloading Files

Using the new NJX:NJXFILEUPLOAD2 control, it is possible to upload files from the client to the Natural server.

Using the new NJX:NJXFILEDOWNLOAD control, it is possible to add a link to your page layout for downloading files from the Natural server to the client.

It is now possible to upload dynamically generated PDF documents to the Natural server. You can do this in two different ways: either with the new build-in event `value-of-reportprop.onUploadPDF` of the REPORT control, or without using the REPORT control as shown in the `PDF_FOP_DEMO` example in the **njxdemos** project.

Deployment

For environments where Natural for Ajax does not support the deployment with a *.war* file (currently, these are JBoss Application Server and Sun Java System Application Server environments), it is now possible to export the selected components to a specified folder. A corresponding option is now available in the deployment wizard. When this new option is selected, the deployment wizard creates plain folders and files which you can then copy into an existing server environment. See *Deploying the Application* in *Natural for Ajax*.

Documentation

As of this version, the installation of NaturalONE is no longer described in the *Software AG Installation Guide*. It is now described within the NaturalONE documentation; see the new *Installation* documentation.

This new *Installation* documentation also contains the information which was previously available under the heading *Before You Start*, and also the *System Requirements* which where previously part of the Release Notes.

2 What's New in Version 8.2.2?

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:

- Development Mode for Libraries
- Handling of Missing Objects
- Support of Linked DDMs
- NATdoc View
- Natural Command Console for Mainframes
- Code Snippets
- Cloning of Arrays in the Map Editor
- Redesigned Preference and Property Pages
- ULANG Profile Parameter
- Listing Objects
- Message Box for Compile Errors
- Console Output when Downloading Objects
- Name of the Group Folder for DDMs in the Eclipse Workspace
- Incremental Deployment Mode
- Documentation Enhancements

Development Mode for Libraries

When Natural Security is active, it is now possible to define different development modes (either shared mode or private mode) for the individual libraries that are contained in a project. See the description of the **Steplibs** property page in *Changing the Library Properties* which is part of *Using NaturalONE*.

Handling of Missing Objects

The **Handling of missing objects** option is now also used by the map editor and for debugging. Therefore, this option has been moved from the **Source Editor** preference page to the **Projects** tab of the **Natural** preference page. See *Natural > Project* in *Setting the Preferences* which is part of *Using NaturalONE*.

Support of Linked DDMs

It is now possible to work with DDMs that have been linked to specific libraries using Natural Security. The linked DDMs are protected, and only authorized users are able to access them. For further information, see the following sections in *Using NaturalONE*:

- *Working with DDMs* in the section *Working with Natural Objects in Natural Server Mode*.
- The description of the **Handling of missing objects** option in the section *Natural > Project* in *Setting the Preferences*.

NATdoc View

A new view, the **NATdoc** view, is now available. It shows how the NATdoc-specific comments in the source code will appear in the API documentation. For further information, see *Previewing the API Documentation in the NATdoc View* in *Using NaturalONE*.

Natural Command Console for Mainframes

A new type of console, the Natural command console for mainframes, can now be opened in the **Console** view. It allows you to enter Natural system commands directly in the **Console** view. For further information, see *Using the Natural Command Console for Mainframes* in *Using NaturalONE*.

Code Snippets

It is now possible to search for code snippets in the Natural community, directly from Eclipse, and to include them in the source code using cut-and-paste. For further information, see *Using Code Snippets from the Natural Community* in *Using NaturalONE*.

Cloning of Arrays in the Map Editor

In addition to scalar fields, array fields can now also be cloned within a map by dragging and dropping them with the CTRL key held down. For further information, see *Adding Controls to the Map* in *Using NaturalONE*.

To select the whole array prior to dragging it, either select the array field in the **Outline** view or click on one of the array elements with the ALT key held down, as described in *Selecting Controls in the Map*. Therefore, an array can be conveniently cloned by holding down both the CTRL and ALT keys while clicking on and dragging one of its elements.

Redesigned Preference and Property Pages

The Natural-specific preference pages and the property pages for projects and libraries have been redesigned. Now, they have identical structures. In order to group the options in a more logical way, new pages and tabs are now available which contain options that were previously located on other pages. See the following sections in *Using NaturalONE*:

- *Setting the Preferences*
- *Changing the Project Properties*
- *Changing the Library Properties*

ULANG Profile Parameter

The Natural profile parameter `ULANG` can now be set in the Natural preferences, in the project properties and in the library properties. See the following sections in *Using NaturalONE*:

- *Regional Settings > Options* in *Setting the Preferences*
- *Regional Settings > Options* in *Changing the Project Properties*
- *Regional Settings > Options* in *Changing the Library Properties*

Listing Objects

In the **Natural Server** view, it is now possible to display the contents of an object in read-only mode. For further information, see *Listing Objects* in *Using NaturalONE*.

Message Box for Compile Errors

In the Natural preferences, you can now specify that a message box is to be shown when a compile error occurs during the execution of an **Upload**, **Update** or **Build Project** command. See *Natural > Builder* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Console Output when Downloading Objects

In the Natural preferences, you can now specify that information about the download process is to be shown in the **Console** view each time you download objects from the **Natural Server** view into a new or existing project. See *Runtime Execution > Server View* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Name of the Group Folder for DDMs in the Eclipse Workspace

The following information applies when you create new projects using the option **Group new objects by object type** (either by using the wizard or by downloading an existing library or object from a Natural server into a new project).

The name of the group folder for DDMs has been changed from **Data Definition Modules** to **DDMs**. After an upgrade to NaturalONE Version 8.2.2, all new DDMs will therefore be added to a group folder named **DDMs**.

When you have created projects with previous versions of NaturalONE where you have used the above mentioned option, the DDMs are still stored in a group folder named **Data Definition Modules**. It is required that you make manual changes to these projects: you have to rename the **Data Definition Modules** folder to **DDMs**. It is recommended that you do this before you add or download additional DDMs.

Incremental Deployment Mode

On the first page of the deployment wizard for Natural applications, new options are available for the incremental deployment mode. For example, you can now determine that only the changed files are to be processed. See *Deploying Natural Applications* in *Using NaturalONE*.

Documentation Enhancements

New documentation is available which explains how to use the travel approval sample application that is delivered with NaturalONE. See *Travel Approval Sample Application* in *Using NaturalONE*.

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 Version of Application Designer
- Workplace Applications
- Function Trees in Workplace Applications
- Triggering User-Defined Events
- Newly Supported Application Designer Controls
- Sharing Data in a Session
- Extended Support of the njx:natname Property
- Focus Management: New Property for NATPAGE Control
- New Property for BUTTON, NJX:BUTTONITEMLISTFIX and NJX:BUTTONITEM Controls
- New Property for FIELD Control
- New Property for STATUSBAR Control
- Changed Natural Code Generation for COLDYNAVIS and ROWDYNAVIS Controls

- PROCESS PAGE UPDATE and Control Status
- Documentation Enhancements

New Version of Application Designer

Natural for Ajax contains Application Designer Version 8.2.

Workplace Applications

You can now create your own workplace applications, with your own workplace resources. See *Creating Your Own Workplace Application* in *Natural for Ajax*.

Function Trees in Workplace Applications

A function tree in a workplace can have a depth greater than 3. Deeply nested tree nodes can be defined statically (MFWPBOOTSTRAPINFO) and dynamically (NJX:XCIWPINFO2 and NJX:XCIWPFUNCTIONS).

Triggering User-Defined Events

Using the new NJX:TRIGGEREVENT control, is now possible to trigger a user-defined event in the application.

Newly Supported Application Designer Controls

The following controls, which were previously only available with Application Designer, can now be used with Natural for Ajax:

- SUBCISPAGE2
- ROWTABSUBPAGES and STRAIGHTTABPAGE

Sharing Data in a Session

The new XCICONTEXT control supports sharing of simple data values between different pages in a session.

Extended Support of the njx:natname Property

Support for the `njx:natname` property has been added to the following controls:

- COLDYNAVIS
- COMBODYN2
- IHTML
- IMAGEOUT
- METHODLINK
- MULTISELECT
- RADIOBUTTON
- ROWDYNAVIS
- SCHEDULELINE
- SLIDER
- STRIPSEL
- SUBPAGE
- TABSTRIP2
- TOGGLE

Focus Management: New Property for NATPAGE Control

The NATPAGE control now supports the new property `focusmgtprop`. See also *Focus Management* in the section *Some Common Rules for all Controls* in *Natural for Ajax*.

New Property for BUTTON, NJX:BUTTONITEMLISTFIX and NJX:BUTTONITEM Controls

The BUTTON, NJX:BUTTONITEMLISTFIX and NJX:BUTTONITEM controls now support the new property `focusedprop`.

New Property for FIELD Control

The FIELD control now supports the new property `lengthprop`.

New Property for STATUSBAR Control

The STATUSBAR control now supports the new property `straighttext`.

Changed Natural Code Generation for COLDYNAVIS and ROWDYNAVIS Controls

For the COLDYNAVIS and ROWDYNAVIS controls, the type of the generated data field in the Natural adapter has changed. The `valueprop` property is now generated as type Logical.

PROCESS PAGE UPDATE and Control Status

With previous versions, it was only possible to control the focus or to modify the status of a control in the `PROCESS PAGE UPDATE` statement when using the `FULL` option.

The following control properties are now updated in a `PROCESS PAGE UPDATE` statement without using the `FULL` option: `statusprop`, `displayprop` and `invisibleprop`. This new functionality requires Natural Version 6.3.10 for Windows and UNIX or Natural Version 8.2 for mainframes.

Documentation Enhancements

A new chapter is available which explains how to create PDF documents for Natural page layouts. See *Working with PDF Documents* in *Natural for Ajax*.

A new part is available containing descriptions of the TITLEBAR, HEADER, PAGEBODY and STATUSBAR controls. See *Typical Page Layout* in *Natural for Ajax*. The description of the NATPAGE control has been moved to this new part.

Known Issues

Test Functionality for Private-mode Libraries

With NaturalONE Version 8.2.2, test functionality based on private-mode libraries is not supported.

3 What's New in Version 8.2.3?

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:

- Support of DDMs in Libraries
- Label Decorator for Private-mode Library Names
- Development Mode Options in Natural Security
- New Templates for Content Assist
- Going to a Natural Line Number in the Source Editor
- Protected Source Code Lines
- Maximum Line Length for Indented Source Code Lines
- Importing Data Fields from the Layout Page of the Map Editor
- Message Box for Confirming the Server Processing of Selected Objects
- Going to the Next Statement while Debugging
- Time Stamp Conflicts while Debugging
- NATdoc
- NATstyle
- Errors when Deploying Natural and Java Applications

Support of DDMs in Libraries

For mainframe environments in the **Natural Server** view and also for UNIX, OpenVMS and Windows environments where the DDMs are stored in the system file `FDDM`, it is now possible to display all accessible DDMs, including protected DDMs, in the library node. The new option **Display DDMs in Library** is available for this purpose. See *Runtime Execution > Server View* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Label Decorator for Private-mode Library Names

When you specify the new `private_name` variable in the Natural preferences, the name of the associated private-mode library is shown in the label decoration of a library node. See *Label Decorations* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Development Mode Options in Natural Security

It is now possible to set so-called "development mode options" in Natural Security. These options determine how Natural Security controls the use of Natural server actions triggered by Navigator view actions. For detailed information, see *Protecting the Natural Development Environment in Eclipse* in the Natural Security documentation, which is part of the Natural documentation.

The prerequisite for this new feature is that a specific Natural Security version is installed in the Natural environment. For mainframe servers, this is Natural Security Version 4.2.7 cumulative fix 4 or Natural Security Version 8.2.2. For UNIX and Windows servers, this is Natural Security Version 6.3.11. These versions will be released later in this year.

New Templates for Content Assist

Additional templates are now available for inserting recurring coding patterns into your source code. See *Source Editor > Templates* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Going to a Natural Line Number in the Source Editor

Using the new **Go to Natural Line** command you can now jump to a line in your source code which corresponds to the four-digit Natural line number which is used on a Natural server. The Natural line number is not the same as the Eclipse line number. See *Going to a Specific Natural Line Number* in *Using NaturalONE*.

Protected Source Code Lines

It is now possible to protect one or more lines in your source code by using read-only tags. See *Protecting Source Code Lines* in *Using NaturalONE*.

Maximum Line Length for Indented Source Code Lines

The **Show print margin** option in the text editor preferences of Eclipse (**Preferences > General > Editors > Text Editors**) is no longer used to determine the column width when using the **Struct** command. Instead, the new **Maximum line length** option is now available in the Natural preferences. See *Struct* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Importing Data Fields from the Layout Page of the Map Editor

It is now possible to import data fields directly from the **Layout** page of the map editor. See *Adding Controls to the Map* in *Using NaturalONE*.

Message Box for Confirming the Server Processing of Selected Objects

In the Natural preferences, you can now specify that a message box is to be shown when you are about to update the server environment using the **Update** or **Upload** command. See *Natural > Builder* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Going to the Next Statement while Debugging

You can now instruct the debugger to skip code and to resume execution of the object with the source code line in which you have placed the cursor. The skipped code is not executed. See *Going to the Next Statement* in *Using NaturalONE*.

Time Stamp Conflicts while Debugging

When the option **Check time stamp conflicts** is enabled in the Natural preferences, the time stamps are now also checked while debugging. When a source in the local workspace has a time stamp which differs from the time stamp of the corresponding source on the server, a dialog box appears, asking whether you want to update the source in the workspace with the source from the server. See also *Starting the Debugger* in *Using NaturalONE*.

NATdoc

NATdoc now searches each regular comment line which starts with /* and checks whether it contains a documentation comment (/**). This allows you, for example, to use different comments for IDL generation and for NATdoc. See *Documentation Comments in the Source Code* in *Using NaturalONE*.

NATstyle

NATstyle is a new development tool for NaturalONE. It helps you write Natural code which adheres to your coding standards. See *Checking Natural Code with NATstyle* in *Using NaturalONE*.

⚠ **Important:** With NaturalONE Version 8.2.3, NATstyle is provided as a preview version. There will be no support for this preview version. Any feedback from our customers on this new development tool is greatly appreciated. Since NATstyle is still under development, a later version of NaturalONE may include substantial changes to NATstyle. These changes may result in incompatibilities, for example, when checking the Natural code with user-created NATstyle configuration files.

Errors when Deploying Natural and Java Applications

The new option **Enable fail-on-error for Ant scripts** is now available on the first page of the deployment wizards for Natural applications and Java applications. The setting of this option determines in which cases a build failure will be triggered. In addition, new command line options are available: `-Dnatural.ant.failonerror` for deploying Natural applications and `-Dnatural.ant.java.failonerror` for deploying Java applications. See *Deploying Applications* in *Using NaturalONE*.

Natural for Ajax / Ajax Developer

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

- Integration of ARIS MashZone Applications
- Errors when Deploying Natural for Ajax Web Applications

Integration of ARIS MashZone Applications

The new NJX:MASHZONE control allows you to integrate an ARIS MashZone application into a Natural for Ajax page.

Errors when Deploying Natural for Ajax Web Applications

The new option **Enable fail-on-error for Ant scripts** is now available on the first page of the deployment wizard for web applications. The setting of this option determines in which cases a build failure will be triggered. In addition, the new command line option `-Dnatural.ant.ajax.failonerror` is available. See *Deploying the Application* in *Natural for Ajax*.

Known Issues

Test Functionality for Private-mode Libraries

With NaturalONE Version 8.2.3, test functionality based on private-mode libraries is only supported with an RPC server which runs on a mainframe.

The command **Test Software AG IDL**, which is available when EntireX is installed, is not supported for private-mode libraries.

Notice of Future Changes

Java

NaturalONE Version 8.2.3 is the last version running with Oracle Java Version 1.5. As of NaturalONE Version 8.2.4, Oracle Java Version 1.6 will be used.

> **Note:** Oracle Java Version 1.6 is currently already required for installing NaturalONE with the Software AG Installer.

Browsers

NaturalONE Version 8.2.3 is the last version which supports Internet Explorer 6.0. For a list of the currently supported web browsers, see *Supported Browsers* in the *Installation* documentation.

4 What's New in Version 8.2.4?

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:

- Library Folders
- Steplibs in Protected Natural Environments
- Opening Missing Object with the Source Editor
- Confirming the Cancelation of a Build
- Arabic Shaping
- Change for Code Page Character Conversion of Mainframe Sources
- Change for Visual Mode Option
- SQL Statements for DB2
- NATstyle

Library Folders

It is now possible to create a new library and a new library folder at the same time. For this purpose, the new option **Use folder as library folder** is available in the dialog box which appears when you create a new library. See *Creating Libraries* in *Using NaturalONE*.

This new option is also available in the dialog box which appears when you create a new Natural object. See *Creating Natural Objects* in *Using NaturalONE*.

Steplibs in Protected Natural Environments

The steplib handling for Natural environments which are protected by Natural Security has been improved. An additional **Update Steplib Definitions** button is now available on the **Steplibs** property page of the library properties. Using this button, you make sure that the steplib definitions in your local workspace are identical with those in the associated Natural environment. In addition, the dialog box which appears when the steplib definitions do not match (for example, when you update a project) has also been improved. Using the buttons in this dialog box, you can now either update the local steplib definitions automatically and continue with the update, or you can cancel the update. See *Steplibs* in the *Changing the Library Properties* which is part of *Using NaturalONE*.

Opening Missing Object with the Source Editor

In addition to downloading missing objects using the **Dependencies** view, it is now possible to download missing objects using the source editor. See *Opening Referenced Objects and Jumping to Variable Declarations* in *Using NaturalONE*.

Confirming the Cancelation of a Build

In the Natural preferences, you can now specify that a dialog box is to be shown when you are about to cancel a build. See *Natural > Builder* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Arabic Shaping

The **Regional Settings** page of the Natural preferences now provides the additional **RTL Languages** tab. Using this new tab, you can define options for Arabic shaping. See *Regional Settings > RTL Languages* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Using NaturalONE contains a new section which explains how Arabic shaping is supported by NaturalONE. See *Arabic Shaping*.

⚠ **Important:** With NaturalONE Version 8.2.4, support for Arabic shaping is provided as a preview version. There will be no support for this preview version. Any feedback from our customers on this new feature is greatly appreciated. Since support for Arabic shaping is still under development, a later version of NaturalONE may include substantial changes to this type of support.

Change for Code Page Character Conversion of Mainframe Sources

If a Natural Development Server (NDV) on the mainframe is started with the configuration parameter `UNICODE_SOURCE=NO`, no error was displayed with previous versions of NaturalONE when a source was uploaded to the server in which the user has entered a character which is not contained in the source's code page. Instead of displaying a conversion error, the unmappable character was replaced with a substitution character. As of this NaturalONE version, an exception will be thrown in the above situation and the source will not be uploaded to the server.

Change for Visual Mode Option

In the Natural preferences, the **Visual mode** option has been moved from the **Project** tab of the **Natural** page to the new **RTL Languages** tab of the **Regional Settings** page. It has been renamed to **Visual order**. See *Regional Settings > RTL Languages* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

SQL Statements for DB2

The NaturalONE parser is now able to recognize, parse and highlight the Natural SQL statements for DB2 for z/OS Version 9 in the source editor. These statements apply to the mainframe only. The prerequisite for this new functionality is that your project is associated with a mainframe environment (for example, via the **Map Environment** dialog box). Please note that only the runtime on a mainframe server is able to execute these statements.

NATstyle

With NaturalONE Version 8.2.4, NATstyle is still provided as a preview version. There will be no support for this preview version. Any feedback from our customers on this new development tool is greatly appreciated. Since NATstyle is still under development, a later version of NaturalONE may include substantial changes to NATstyle. These changes may result in incompatibilities, for example, when checking the Natural code with user-created NATstyle configuration files.

See *Checking Natural Code with NATstyle* in *Using NaturalONE*.

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 Event
- Copy-and-Paste in the Layout Painter

New Event

`nat:browser.end` is a new built-in event. This is event is raised whenever the session is terminated by a browser action:

- Closing of the browser.

- Navigation to another page in the browser.

- Programmatic close in a workplace (for example, close all session functions).

In addition, this event is raised in the following cases:

- Timeout of the session.

- Removal of the session with the monitoring tool.

After the event is raised, the Natural session terminates.

See *Built-in Events and User-defined Events* in *Natural for Ajax*.

Copy-and-Paste in the Layout Painter

The Layout Painter now supports copy-and-paste operations between different page layouts.

Lifecycle Manager

NaturalONE is now delivered with a new optional component: the Lifecycle Manager. The Lifecycle Manager is used to deploy Natural applications and Natural for Ajax applications (or specific versions thereof) to different environments and to keep track of the installed applications in each environment. It is based on CentraSite and uses Natural projects. For detailed information, see the *Lifecycle Manager* documentation.

The Lifecycle Manager is installed together with NaturalONE. In the Software AG Installer wizard, it is shown when you expand **Designer > NaturalONE**. When you install it, several files are copied to your NaturalONE installation. For information on how to proceed after that, see *System Requirements* and *Installation and Configuration* in the *Lifecycle Manager* documentation.

Restrictions

Workplace applications that have been developed using Ajax Developer are not yet supported by NaturalONE's basic functionality for application development.

5 What's New in Version 8.2.5?

Supported Web Browsers

NaturalONE Version 8.2.5 now supports Safari 5.1 on Windows, Internet Explorer 9, and Mozilla Firefox 9 and 10. For a list of the currently supported web browsers, see *Supported Browsers* in the *Installation* documentation.

> **Note:** Mozilla Firefox 10 (Extended Support Release) is supported. In future versions, only the Extended Support Releases of Mozilla Firefox will be explicitly supported.

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:

- Natural Navigator View
- Sorting in the Dependencies View
- Validating Maps
- Suppressible Message Dialogs for the Map Editor
- New Properties in the Map Editor
- Handling of Missing Objects
- Auto Skip to Next Input Field in Web I/O Pages
- Downloading Library Properties for Secured Environments
- Change for Code Page Character Conversion of Mainframe Sources
- NATdoc
- NATstyle
- Arabic Shaping
- Additional JAR Files for Deployment

Natural Navigator View

The **Natural Navigator** view is a new view for NaturalONE. Other than the standard Eclipse **Navigator** view which always shows a project as it is stored in the file system, the **Natural Navigator** view allows you to view and/or filter your Natural projects in several Natural-specific ways. See *Using the Natural Navigator View* in *Using NaturalONE*.

> **Important:** With NaturalONE Version 8.2.5, the **Natural Navigator** view is provided as a preview version. There will be no support for this preview version. Any feedback from our customers on this new view is greatly appreciated. Since the **Natural Navigator** view is still under development, a later version of NaturalONE may include substantial changes for this view. Currently, only a small subset of the possible commands is available. More commands will be available with a later version.

Sorting in the Dependencies View

The objects in the **Dependencies** view can now be sorted alphabetically. The local toolbar provides a corresponding icon. The sort order is library name first, then object name. See *Associated Views* in *Using the Source Editor* which is part of *Using NaturalONE*.

Validating Maps

When you save a map, consistency checks are now automatically performed in order to determine the validity of the map. Using the new **Validate Map** command, you can also validate the map at an earlier point in time. See *Validating Maps* in *Using the Map Editor* which is part of *Using NaturalONE*.

In addition, it is now possible to navigate to an error in a map using the **Problems** view, and tooltips are now provided in the **Outline** view which also allow you to navigate to an error in a map. See *Error Handling in the Map Editor* in *Using the Map Editor* which is part of *Using NaturalONE*.

Suppressible Message Dialogs for the Map Editor

In the Natural preferences, you can now specify whether or not message dialogs are to be shown in specific situations. See *Map Editor* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

New Properties in the Map Editor

The **Properties** view now provides the following properties for the map itself and for all controls in the map: **Modified** and **Error Status**. See *Viewing the Status Properties* in *Using the Map Editor* which is part of *Using NaturalONE*.

Handling of Missing Objects

The **Handling of missing objects** option in the Natural preferences now also pertains to Natural server mode. However, when you are editing objects directly on a Natural server, missing objects are never downloaded into the temporary project which is automatically created in your workspace. They can only be loaded into memory. Therefore, the **Download from server** option is handled as **Read from server**. See *Natural > Project* in *Setting the Preferences* which is part of *Using NaturalONE*.

Auto Skip to Next Input Field in Web I/O Pages

In the Natural preferences, you can now specify that the cursor is automatically placed in the next input field when the last possible character has been entered in the current input field. This feature is available when the default configuration is used or when a Natural for Ajax server type has been selected. When using a Natural for Ajax server type, it is required that Natural for Ajax Version 8.2.5 or above is installed on the server. See *Natural I/O* in the section *Setting the Preferences* which is part of *Using NaturalONE*.

Downloading Library Properties for Secured Environments

When creating a new library in a project which is associated with a Natural environment in which Natural Security is active, it is now possible to download the library properties from the server. For this purpose, the new option **Load library properties from secured environment** is available in the dialog box which appears when you create a new library. See *Creating Libraries* in *Using NaturalONE*.

This new option is also available in the dialog box which appears when you create a new Natural object. See *Creating Natural Objects* in *Using NaturalONE*.

Change for Code Page Character Conversion of Mainframe Sources

If a Natural Development Server (NDV) on the mainframe is started with the configuration parameter `UNICODE_SOURCE=NO`, NaturalONE now uses the ICU Unicode conversion routines when uploading and downloading sources. The conversion is now compatible with other Natural products.

NATdoc

Custom templates are now provided. You can use them for your own modifications or for translations into other languages. See *Using Custom Templates* in *Using NaturalONE*.

NATstyle

NATstyle is no longer declared as a preview version. It is now fully supported. See *Checking Natural Code with NATstyle* in *Using NaturalONE*.

Arabic Shaping

With NaturalONE Version 8.2.5, support for Arabic shaping is still provided as a preview version. There will be no support for this preview version. Any feedback from our customers on this new feature is greatly appreciated. Since support for Arabic shaping is still under development, a later version of NaturalONE may include substantial changes to this type of support.

See *Arabic Shaping* in *Using NaturalONE*.

Additional JAR Files for Deployment

For the deployment of your Natural applications, Java applications and Natural for Ajax web applications, the following JAR files are now also required:

- *com.ibm.icu.charset_`<version>`.jar*
- *com.ibm.icu_`<version>`.jar*

See also *Starting the Deployment from the Command Line* in *Deploying Natural Applications* which is part of *Using NaturalONE*.

If you have existing master deployment files (which also contain the necessary JAR files for the deployment), it is required that you regenerate each master deployment file in order to include the above JAR files.

If you are using the Lifecycle Manager, make sure that the directory defined by `NATANTLIB` also contains the above JAR files. For further information, see *Running the Installation Script* in the *Lifecycle Manager* documentation.

Natural for Ajax / Ajax Developer

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

- War Archive Deployment
- New IMAGEVIEWER Control
- Context Menu Support in FIELD Controls
- Executing Workplace Applications

■ Automatic Refreshing in the Layout Painter

War Archive Deployment

War archive deployment of Natural for Ajax applications is now supported for Apache Tomcat, IBM WebSphere and Oracle GlassFish.

A new option is available in the deployment wizard for web applications which allows you to select the type of application server for which the war archive is to be created.

For further information, see *Deploying the Application* in the *Natural for Ajax* documentation.

New IMAGEVIEWER Control

Using the new IMAGEVIEWER control, you can display images in a web page. The image can be rotated, zoomed and translated (that is, moved into a specified direction).

Context Menu Support in FIELD Controls

Context menus are now supported in FIELD controls. The new properties `contextmenu` and `contextmenumethod` are available for this purpose. For detailed information on these properties, see the description of the FIELD control. See also the description of the XCIPOPUPMENU control for information on how to enable context menus.

Executing Workplace Applications

It is now possible to execute workplace applications in NaturalONE. For this purpose, the new command **Run in Browser** is available in the Ajax Developer. A prerequisite for this, however, is that a Natural Web I/O Interface server (NWO) is installed which runs in the same environment as the Natural Development Server (NDV) which is used in NaturalONE. For further information, see the new section *Executing Workplace Applications in NaturalONE Using an External Natural Web I/O Interface Server* in the *Natural for Ajax* documentation.

For additional information on the new command, see *Executing Page Layouts of User Interface Components* in the *Ajax Developer* documentation.

> **Note:** With NaturalONE Version 8.2.6, the command **Run in Browser** has been renamed to **Execute**.

Automatic Refreshing in the Layout Painter

A new option is available which allows you to enable or disable automatic refreshing of the Layout Painter's preview area. Disabling the automatic refreshing is helpful, for example, when you work with complex controls such as ROWTABAREA. The name of this new option is **Layout refresh mode**. It is available in the Ajax Developer preferences and when you enable a project for Ajax Developer. For further information, see *Enabling a Project for Ajax Developer* and *Setting the Ajax Developer Preferences* in the *Ajax Developer* documentation.

Mainframe Tools

Mainframe Tools is a new optional component which can be installed together with NaturalONE. This new component currently includes only one tool: Mainframe Navigation. Mainframe Navigation allows you to access and manipulate objects stored on a mainframe from Eclipse. These objects include datasets and members, as well as system objects such as active jobs or the console under the z/OS operating system. For detailed information, see the *Mainframe Navigation* documentation.

Any feedback from our customers on this new component is greatly appreciated. Currently, only the z/OS operating system is supported and only a small subset of the possible commands is available. More features will be available with a later version.

Optional Components

Important 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.

Application Testing

Test functionality based on private-mode libraries is now fully supported. The prerequisite for this, however, is that you use NaturalONE Version 8.2.4 or above and that at least Natural Version 6.3.12 for Windows, UNIX or OpenVMS is installed in your Natural server environment.

Lifecycle Manager

It is now possible to force the installation of a hot fix and to simulate the installation of a Natural project.

6 What's New in Version 8.2.6?

Performance and Memory Consumption

With NaturalONE Version 8.2.6, the performance in huge projects with more than 20,000 objects has been significantly improved, and memory comsumption has been reduced. To make use of these enhancements, proceed as follows:

1. Clean all existing projects in your workspace (that is, go to the **Project** menu and choose **Clean**).

2. Exit the Software AG Designer.

3. Restart the Software AG Designer.

See also *Recommendation for Huge Natural Applications Developed with NaturalONE* in the *Installation* documentation.

Supported Web Browsers

NaturalONE Version 8.2.6 now supports Google Chrome. The Google Chrome support is based on Google Chrome Version 19. Due to frequent version upgrades of Google Chrome, compatibility of NaturalONE Version 8.2.6 with future versions of Google Chrome cannot be fully guaranteed. Possible incompatibilities will be removed during the regular maintenance process of NaturalONE.

For a list of the currently supported web browsers, see *Supported Browsers* 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:

- Debug Attach Server
- Syntax Parsing of Dependent Objects
- Deleting Error Messages on the Server
- Writing the History of the Natural Builder to a Log File
- Changing the Security Status of a Natural Project
- Changing the Library Properties for a Secure Environment
- Updating the Library Properties with the Settings from the Server
- Copying and Exporting as Text from the Dependencies View
- Generating Counter Fields
- MAXYEAR Profile Parameter
- Changed Default User ID when Creating a New Project

- Defining a Different Start Library
- Breakpoint Modifications for Suspended Applications
- Multiple Incremental Deployments of a Natural Application in a Single Project
- Using Only the Changed Files for Deployment
- Time Stamp Checking for Deployment
- Natural Navigator View
- Arabic Shaping

Debug Attach Server

It is now possible to debug Natural RPC applications and external Natural applications. A debug attach server is required for this purpose. See *Using a Debug Attach Server* in *Using NaturalONE*.

A new page named **Debug Attach Settings** is available in the Natural preferences on which you can enable the use of the debug attach server. See *Debug Attach Settings* in *Setting the Preferences* which is part of *Using NaturalONE*.

A new page named **Debug Attach Settings** is also available in the project properties. The debug attach server uses a unique client ID to manage its attach records, which is shown on this property page. If you want to debug an external Natural application or, if necessary, for testing purposes, you can define a custom client ID. See *Debug Attach Settings* in *Changing the Project Properties* which is part of *Using NaturalONE*.

New commands are available which allow you to activate and deactivate the debug attach mechanism for a Natural application that is started outside of NaturalONE. See *Debugging an External Natural Application* in *Using NaturalONE*.

Note: The debug attach server is currently only available for Windows.

Syntax Parsing of Dependent Objects

It is now possible to parse dependent objects after a Natural source has been saved. A dependent object is, for example, a program which uses the fields from a data area. When a change results in an error in a dependent object and syntax parsing is enabled, the dependent object is now shown with an error marker.

You can also specify that syntax parsing is to be stopped after the first error. This reduces the number of error markers and thus improves the performance of syntax parsing and reduces memory consumption.

The new options **Enable syntax parsing**, **Parse syntax automatically** and **Stop after first error** are available in the Natural preferences, and the new commands **Parse All** and **Parse Syntax Automatically** are available in the **Project** menu. See the following sections in *Using NaturalONE*:

- *Natural > Builder* in *Setting the Preferences*

- *Parsing Dependent Objects* in *Using the Natural Editors*

Deleting Error Messages on the Server

It is now possible to delete the error messages on the server before the error messages from a project are uploaded. For this purpose, the new option **Delete error messages on server before upload** is available in the Natural preferences and in the project properties. See the following sections in *Using NaturalONE*:

- *Natural > Options* in *Setting the Preferences*
- *Natural* in *Changing the Project Properties*

Writing the History of the Natural Builder to a Log File

It is now possible to write the history of the Natural builder to a log file. For this purpose, a new page named **Logging** is available in the project properties. See *Logging* in *Changing the Project Properties* which is part of *Using NaturalONE*.

Changing the Security Status of a Natural Project

When you assign your project to a different Natural environment, a dialog box appears now which allows you to change or keep the current security status. When you change the security status, you can specify that the properties for all libraries are to be adapted so that they match the properties of the new environment. See *Runtime* in *Changing the Project Properties* which is part of *Using NaturalONE*.

Changing the Library Properties for a Secure Environment

In the library properties, it is now only possible to change the parameters which can also be changed with Natural Security in the Natural environment. All other parameters, which are shown in grey on the different property pages of the **Security** subnode, are inherited from the project properties and cannot be changed here. See *Changing the Library Properties* in *Using NaturalONE*.

Updating the Library Properties with the Settings from the Server

A new command, **NaturalONE > Update Library Properties from Server**, is available for each library in a project which pertains to a Natural environment protected by Natural Security. Using this command, you can update the Natural profile parameters settings of a library in your workspace with those which are currently active on the server. See *Updating the Library Properties with the Settings from the Server* in *Using NaturalONE*.

Copying and Exporting as Text from the Dependencies View

In the **Dependencies** view, it is now possible to copy a node and all of its visible subnodes as text to the clipboard, and it is now possible to export all visible nodes as text to a file in your Eclipse workspace. See *Dependencies View* in *Using the Source Editor* which is part of *Using NaturalONE*.

Generating Counter Fields

It is now possible to generate counter fields for periodic groups and multiple-value fields. See *Generating Counter Fields* in *Using the Source Editor* which is part of *Using NaturalONE*.

MAXYEAR Profile Parameter

The Natural profile parameter `MAXYEAR` can now be set in the Natural preferences, when creating a new project using the wizard, or when changing the project properties or library properties. See the following sections in *Using NaturalONE*:

- *Parser > Parameters* in *Setting the Preferences*
- *Creating a New Project Using a Wizard* in *Creating Natural Projects*
- *Parser > Parameters* in *Changing the Project Properties*
- *Parser > Parameters* in *Changing the Library Properties*

Changed Default User ID when Creating a New Project

When you are working in a new workspace and create a project which applies to a Natural server, the user ID in the project wizard is initially set to the user ID that you have used to log on to your operating system. Each time you enter a different user ID in the project wizard, this user ID is now persistently stored in Eclipse and will be provided as the default value the next time you create a new project. See also *Creating a New Project Using a Wizard* in *Creating Natural Projects* which is part of *Using NaturalONE*.

Defining a Different Start Library

The launch configuration for a Natural application now provides the new option **Start in library**. Using this option is helpful, for example, when your startup program is located in a steplib and the main program which is invoked by the startup program is located in a different library. See the following sections in *Using NaturalONE*:

- *Defining a Different Start Library for Execution*
- *Defining a Different Start Library for Debugging*

Breakpoint Modifications for Suspended Applications

In the NaturalONE debugger, it is now possible to add breakpoints while the Natural runtime on the server is suspended. The new breakpoints are considered when the Natural runtime is resumed. See also *Editor Area* in *Debugging Natural Applications* which is part of *Using NaturalONE*.

Multiple Incremental Deployments of a Natural Application in a Single Project

With the deployment wizard for Natural applications, it is now possible to run more than one incremental deployment inside a single Natural project. Each of the incremental deployments maintains its own state of changed files. See also *Deploying Natural Applications* in *Using NaturalONE*.

Using Only the Changed Files for Deployment

Using the new option **Retain sources of unchanged files** in the deployment wizard for Natural applications, you can determine that only the sources of changed files are updated on the Natural server. See also *Controlling the Scope of Files to be Processed* in *Deploying Natural Applications* which is part of *Using NaturalONE*.

Time Stamp Checking for Deployment

To avoid overwriting of sources that have been modified directly on the server, it is now possible to enable time stamp checking in the deployment wizard for Natural applications. For this purpose, the wizard provides the new option **Check time stamp on server**. For detailed information, see *Checking the Time Stamps in the Natural Environment* in *Deploying Natural Applications* which is part of *Using NaturalONE*.

Natural Navigator View

With NaturalONE Version 8.2.6, the **Natural Navigator** view is still provided as a preview version. There will be no support for this preview version. Any feedback from our customers on this new view is greatly appreciated. Since the **Natural Navigator** view is still under development, a later version of NaturalONE may include substantial changes for this view. See *Using the Natural Navigator View* in *Using NaturalONE*.

New features in this version are:

■ When you paste an object, the **Natural Navigator** view now checks whether another folder of the target library already contains an object with the same name. If such an object already exists, a dialog box appears asking, for example, if you want to create the object in the selected folder and at the same time remove the duplicate object from the other folder.

   When a paste operation in the **Natural Navigator** view causes the deletion of an object, separate commands for undoing the delete operation and for undoing the copy operation are now available.

It is now possible to copy and paste objects from different parents.

See also the information on the **Natural Navigator** view under *Copying and Pasting Objects and Libraries* in *Using NaturalONE*.

- The **Cut** command is now available in the **Natural Navigator** view. See also *Moving Objects and Libraries* in *Using NaturalONE*.

- The **Rename** command is now available in the **Natural Navigator** view. See also *Renaming Objects and Libraries* in *Using NaturalONE*.

- The **Delete** command is now available in the **Natural Navigator** view. Special handling has been added for nodes which do not physically exist in the file system (for example, a **Programs** group node). When you delete such a node from the **Natural Navigator** view, a dialog box appears, asking, for example, if you want to delete all programs located in the current library or library folder from the file system. See also *Deleting Objects and Libraries* in *Using NaturalONE*.

Arabic Shaping

With NaturalONE Version 8.2.6, support for Arabic shaping is still provided as a preview version. There will be no support for this preview version. Any feedback from our customers on this new feature is greatly appreciated. Since support for Arabic shaping is still under development, a later version of NaturalONE may include substantial changes to this type of support.

See *Arabic Shaping* in *Using NaturalONE*.

Natural for Ajax / Ajax Developer

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

- Debugging Workplace Applications
- Right-to-Left Layout Direction
- New NJX:SESSIONPARAMS Control
- Closing All Content Pages with NJX:XCIWPACCESS2
- Test Tool ID Support in TEXTOUT Control
- Defining Data Types with the COMBOFIX and RADIOBUTTON Controls
- Defining Movable Columns for the ROWTABLEAREA2 Control
- Defining the Same Natural Session for Multiple Tabs of the ROWTABSUBPAGES Control

- Change for nat:browser.end Event

Debugging Workplace Applications

Using the new debug attach server, it is now possible to debug workplace applications in NaturalONE. For this purpose, the new command **Debug** is available in the Ajax Developer. A prerequisite for this, however, is that a Natural Web I/O Interface server (NWO) is installed which runs in the same environment as the Natural Development Server (NDV) which is used in NaturalONE. For further information, see the section *Executing and Debugging Workplace Applications* in the *Natural for Ajax* documentation.

The **Run in Browser** command in the Ajax Developer has been renamed to **Execute**.

For additional information on the above commands, see *Executing and Debugging User Interface Components* in the *Ajax Developer* documentation.

Right-to-Left Layout Direction

With Ajax Developer, it is now possible to design page layouts with a right-to-left (RTL) layout direction.

You can select the layout direction in the Ajax Developer preferences, when creating a new user interface component, or when changing the properties of an existing user interface component. See the corresponding sections in the *Ajax Developer* documentation.

The selected layout direction will then be used in the preview area of the Layout Painter.

New NJX:SESSIONPARAMS Control

Using the new NJX:SESSIONPARAMS control, you can change the style sheet of a running Natural for Ajax session, and you can define Sunday or Monday as the first day of the week.

Closing All Content Pages with NJX:XCIWPACCESS2

It is now possible to assign the value "allpopup" to `CMDCLOSECONTENTPAGE`. In this case, a yes/no pop-up will appear, asking whether you really want to close all content pages. See also the description of the NJX:XCIWPACCESS2 control in the *Natural for Ajax* documentation.

Test Tool ID Support in TEXTOUT Control

The TEXTOUT control now supports the property `testtoolid` which is used for automated testing.

Defining Data Types with the COMBOFIX and RADIOBUTTON Controls

The COMBOFIX and RADIOBUTTON controls now support the property `datatype`. The following data types can be selected:

N *n.m*
P *n.m*
string *n*
string

Defining Movable Columns for the ROWTABLEAREA2 Control

The GRIDCOLHEADER control now supports the property `movablecol` which allows you to define the columns in a ROWTABLEAREA2 control as movable columns. During runtime, the columns can thus be rearranged using drag-and-drop. See also *Making Columns Movable* in the *Natural for Ajax* documentation.

Defining the Same Natural Session for Multiple Tabs of the ROWTABSUBPAGES Control

It is now possible to define the same Natural session for multiple tabs of the ROWTABSUBPAGES control. For this purpose, the adapter interface supports the new element `PAGENAME`.

Change for nat:browser.end Event

The built-in event `nat:browser.end`, which is available since version 8.2.4, is now available in the adapter code when the adapter is created.

```
* VALUE U'nat:page.end',U'nat:browser.end'
* /* Page closed.
* IGNORE
```

Optional Components

Important 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.

Application Testing

A new type of Natural unit test is available called "sequence unit test".

The documentation for the Application Testing component, which was previously contained in the *Business Services* documentation under the heading *Test Functions*, is now available as a separate documentation unit. For detailed information on this component, see the new *Application Testing* documentation.

Natural Engineer

The documentation for the Natural Engineer component has been revised and is now available in HTML format. See the revised *Natural Engineer* documentation.

Known Incompatibilities

Incremental Deployments of Natural Applications

The mechanism for maintaining the state of an incremental deployment has been changed. Due to technical reasons, a newly generated Natural deployment script for an incremental deployment will treat all files in the project as changed files during the first deployment run.

7 What's New in Version 8.2.7?

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:

- Deleting the Log File with the History of the Natural Builder
- Private-mode Libraries
- No Time Stamp Checks for Private-mode Libraries
- Renamed Commands/Option for Building Natural Projects
- Free Rules in the Map Editor
- Clipboard Operations on Arrays in the Map Editor
- Console Output for the Natural Builder
- Natural Navigator View
- Arabic Shaping

Deleting the Log File with the History of the Natural Builder

It is now possible to delete the log file with the history of the Natural builder directly from the project properties. See *Logging* in *Changing the Project Properties* which is part of *Using NaturalONE*.

Private-mode Libraries

The handling for private-mode libraries has been changed. It is now possible to delete a private-mode library directly from the library properties. See *Changing the Library Properties* in *Using NaturalONE*.

No Time Stamp Checks for Private-mode Libraries

Time stamp conflicts cannot occur for the objects in a private-mode library, because these objects can only be modified by a single user via changes in the Natural project. Therefore, the time stamps of the objects in the local workspace and on the server are no longer compared. See also *Checking the Time Stamps in the Natural Environment* in *Using NaturalONE*.

Renamed Commands/Option for Building Natural Projects

The following have been renamed for reasons of clarity:

Old Name	New Name
Build Project command	**Build Natural Project** command See also *Updating the Objects in the Natural Environment* in *Using Natural ONE*.
Rebuild Project command	**Rebuild Natural Project** command See also *Rebuilding all Objects in the Natural Environment* in *Using Natural ONE*.
Build projects automatically option	**Build Natural projects automatically** option See also *Natural > Builder* in *Setting the Preferences* which is part of *Using Natural ONE*.

Free Rules in the Map Editor

It is now possible to convert a free rule into an inline rule. See *Changing the Properties for a Rule* in *Using NaturalONE*.

Clipboard Operations on Arrays in the Map Editor

With marquee selection, it is now possible to use clipboard operations (**Cut**, **Copy**, **Delete**) on an array. In this case, it is sufficient to select just one of the array elements. The clipboard operation is always implicitly applied to the entire array. By default, a message dialog appears, prompting you to confirm the clipboard operation. You can suppress this message dialog, either in the message dialog itself or with the new option **Warn if implicitly applying clipboard operation to entire array instead of selected elements** which is available in the Natural preferences. See *Map Editor* in *Setting the Preferences* which is part of *Using NaturalONE*.

Console Output for the Natural Builder

Using the new **Limit console size** option in the Natural preferences, you can now define a limit for the console output of the Natural builder. Moreover, it is now possible to define no limit for the console output. By default, the console output of the Natural builder is limited to 80000 characters, which is identical to the fixed limit that was used in previous NaturalONE versions. See *Natural > Builder* in *Setting the Preferences* which is part of *Using NaturalONE*.

Natural Navigator View

With NaturalONE Version 8.2.7, the **Natural Navigator** view is still provided as a preview version. There will be no support for this preview version. Any feedback from our customers on this new view is greatly appreciated. Since the **Natural Navigator** view is still under development, a later version of NaturalONE may include substantial changes for this view. See *Using the Natural Navigator View* in *Using NaturalONE*.

New features in this version are:

■ The **Print** command is now available in the the **Natural Navigator** view. When you print an object source from the **Natural Navigator** view, the printout contains Natural-specific information. This is different from the **Print** command available in the source editor which uses Eclipse functionality. See also *Printing Objects* in *Using NaturalONE*.

Arabic Shaping

With NaturalONE Version 8.2.7, support for Arabic shaping is still provided as a preview version. There will be no support for this preview version. Any feedback from our customers on this new feature is greatly appreciated. Since support for Arabic shaping is still under development, a later version of NaturalONE may include substantial changes to this type of support. See *Arabic Shaping* in *Using NaturalONE*.

Natural for Ajax / Ajax Developer

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

- Control Editor
- New Statusprop FOCUS_NO_SELECT

Control Editor

You can now develop your own custom controls. See *Custom Controls*.

You build your own controls using the Control Editor which is now available as an Ajax Developer tool. See *Control Editor* in the *Ajax Developer* documentation.

New Statusprop FOCUS_NO_SELECT

The `statusprop` property now supports the new value "FOCUS_NO_SELECT". See *Dynamically Controlling the Visibility and the Display Status of Controls* in *Some Common Rules for all Controls*.

Known Issues

Byte Order Marks (BOMs) in Input Files for XML Toolkit

BOMs in XML schema and DTD input files are currently not supported. If the input file contains a BOM, a parsing error will occur. As a workaround, you have to remove the BOM manually. See also *Using the XML Toolkit* in *Using NaturalONE*.