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*************************** README.TXT ******************************
*
* Product:          NaturalONE
* Platform:         Windows and UNIX
* Version:          9.1.4 PL 0
* Date of creation: 2021-10-08
*
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1.   Installation

NaturalONE 9.1.4 is based on Eclipse IDE for Enterprise Java
Developers 4.19.0.v20210303-1800 and GEF 3.11. Software AG has
tested NaturalONE with the Eclipse environment delivered via the
Software AG download center. If you do not use the Eclipse
environment provided by Software AG, you may download
'Eclipse IDE for Java EE Developers' from the web.
In this case, you have to configure your Eclipse environment on your
own. For more information, see "Using Your Own Eclipse" in the
"Installation" section of the NaturalONE documentation.

1.1   NaturalONE on Linux

1.1.1   Starting Software AG Designer on Linux

In some cases, there may be an issue when starting Software AG
Designer on Linux. This is related to Eclipse's automatic detection
of the installed version of XULrunner. An alternative is to set the
property org.eclipse.swt.browser.XULRunnerPath to point at your
installed XULrunner.
For more information, see the Eclipse documentation at
http://www.eclipse.org/swt/faq.php#specifyxulrunner.

1.1.2   Installing EntireX and Natural on Linux

Only for Red Hat 8: To be able to run EntireX or Natural on Red Hat 8,
you have to install the legacy package ...

libnls.x86_64

1.2   Licensing

To make use of NaturalONE, you need a license file from Software AG.

1.3   Prerequisites to Make Use of Full Functionality of
         NaturalONE 9.1

The recommended Natural versions are listed in the Installation
documentation of NaturalONE. See "Using an Existing Natural Development
Server Environment".

If you want to use the optional component Natural Construct, Construct
Version 8.2 must be installed in your server environment.
If you want the optional component Natural Construct to take advantage
of the new Predict 8.2 features, Construct Version 8.2 must be
installed on your server environment.

If you want to use the optional component Service Development, Natural
Business Services Version 8.2 must be installed on your server
environment.

If you want to use both optional components Natural Construct and
Service Development, you only need to install Natural Business
Services Version 8.2.

If you want to use the optional component Predict for Eclipse, Predict
8.4 has to be installed on your server environment.

1.4   Screen Size for Natural Output from the Mainframe

On mainframes, TMODEL=0 is defined by default, which results in a very
small font in the "Natural I/O" window. When you map to a mainframe
environment, it is therefore recommended that you specify the session
parameter TMODEL=2 in the "Map Environment" dialog box. Or when you
have already created a project in your Eclipse workspace, it is
recommended that you specify this session parameter on the "Runtime"
page of the project properties.

1.5   Proxy Settings for NaturalONE

This information applies to users whose PC is connected to the internet
via a proxy and who use the Windows operating system and Internet
Explorer.

After the execution of a Natural program that does screen I/O on the
Natural server, it may happen that a dialog box with the following
error message appears:
"Waiting for completion of IFRAMEs - no completion after 2.500 loops."
The reason for this message is that the proxy settings for the PC are
not set properly. To correct the settings, proceed as described below:

1. From the "Tools" menu, choose "Internet Options".

2. In the resulting dialog box, go to the "Connections" tab.
3. Choose the "LAN Settings" button.
   Even when "Automatically detect settings" is enabled, internally the
   proxy and proxy settings may not be appropriately set.
4. Enable "Use a proxy server for your LAN".
5. Choose the "Advanced" button.
6. In the resulting dialog box, enter your valid proxy address and port
   number (at least for HTTP).
7. Under "Exceptions", enter at least your local machine and your SPoD
   server machines. If you are planning to use a remote application
   server or web container (instead of the built-in Apache Tomcat
   server) for execution and debugging purposes, enter also the machine
   where this server is running.
8. Choose the "OK" button repeatedly to close all dialog boxes.

1.6   Natural Server Timeout

NaturalONE needs to have access to the Natural server. The
communication to the server is TCP/IP-based. It is possible to adjust
the timeout for the connection between NaturalONE and the Natural
server using the NaturalONE preferences. The timeout value depends on
the transfer rate of your connection.

1.7   Natural and ETID Setting

Make sure that the ETID settings in the NaturalONE workspace and in
the "Natural Server" view are different.

1.8   Documentation Amendment

1.8.1   Using Your Own Eclipse Environment

The section "Using Your Own Eclipse" within the NaturalONE
documentation (contained in "Installation") describes how specific
plug-ins of NaturalONE can be installed in your own Eclipse
environment.
This description applies only to the plug-ins which make up the basic
functionality for Natural application development. Using the Eclipse
update manager, it is not possible to install other NaturalONE
plug-ins, for example, for service-enabled development, into your own
Eclipse environment.

For information on how to install the EntireX plug-ins, see the
EntireX documentation at
http://documentation.softwareag.com/webmethods/entirex.htm
(Installation Overview > Workbench Plug-ins).

1.8.2   NaturalONE Help

The Eclipse help for NaturalONE was created at an early stage of the
product freeze phase. The most recent information is included in the
NaturalONE documentation available at
http://documentation.softwareag.com/naturalONE/naturalone.htm.

2.   Changes and Enhancements

The major enhancements for this version are described in the Release
Notes which are provided with the NaturalONE Version 9.1.3
documentation.
NaturalONE consists of several components. See also the EntireX readme
file.

3.   Restrictions

3.1   Statements for Event-Driven Programming

The syntax for statements that are used for Natural dialogs
(such as SEND EVENT) is not checked with the current parser.

3.2   GUI Elements

GUI elements in a map are not fully supported. If a map contains GUI
controls, some controls (for example, menus, bitmaps, and push buttons)
are not yet displayed. However, the map can be saved without losing
data.

3.3   Externalization of Code Fragments

NaturalONE provides the capability to extract code fragments into a
separate Natural object. Right now, this feature does not generate the
required variable definitions. The newly created Natural object can be
cataloged without errors if the required variable definitions are
subsequently added by the user.

3.4   Time Stamp Check for Error Messages and Resources

Error messages are excluded from time stamp handling. NaturalONE's time
stamp feature will not detect concurrent updates of error message
files; on an upload operation, a NaturalONE user will not be warned of
possible overwrites of updates achieved by other users. Mainframe
servers do not support time stamp processing for resources either.

3.5   New Workspace for NaturalONE 9.1.4

If NaturalONE 9.1.3 is already installed, it is recommended that you
use a different Eclipse workspace for NaturalONE 9.1.4. For update
hints, see the NaturalONE installation documentation.

3.6   NATdoc for Construct-Generated Objects

When you create NATdoc content for Construct-generated objects, the
referenced Construct runtime project is not included automatically. To
create NATdoc properly, copy the Construct runtime library temporarily
into your project and then create NATdoc. When NATdoc has been created,
you can remove the library.

3.7   Natural Command Console for Mainframes

The cursor may not be positioned correctly to the end of the console's text. This is related to Eclipse 4.19. Natural Web I/O output is not cleared before the output of the next statement is displayed.

3.8   Timeout Settings for RPC Debugging

For RPC debugging, there are two timeout parameters, which cannot be controlled by the Natural application: CONV-NONACT and SERVER-NONACT. Their values need to be set in the EntireX broker attribute file. The required value should be set to a reasonable value, which depends on the application environment.

4.   Known Issues

4.1   Installation

4.1.1   Installing NaturalONE on network and SUBST drives

NaturalONE makes use of several Windows services.

Therefore, NaturalONE should be installed just on machine local drives because Windows services are not able to access network drives. Similarly, this is true for drives created using the DOS command SUBST.

4.1.2   Uninstalling NaturalONE Leaves Files in the Installation Folder

After an uninstall of NaturalONE, several files remain in the subfolder "Designer\eclipse" of the installation folder. You should delete this folder if you plan to re-install NaturalONE into the same location.

Note that the subfolder "install" remains by design as it contains the installation and uninstallation history and log files.

4.2   Natural Development Environment

4.2.1   Run Software AG Designer with Administrator Privileges

On Windows Server platforms it's recommended to run the Software AG Designer application with the administrator privileges: "Run as Administrator". Otherwise, if UAC is enabled the error message "An error has occurred. See the log file null" appears after Software AG Designer is started.

4.2.2   Natural Parser

Some semantical errors may not be indicated by an error marker. You may not see error markers that are expected in the source editor. If you upload the source to the Natural server, the catalog operation generates
a compilation error.

4.2.3   Natural Navigator View

4.2.3.1 Drag&Drop between Natural Navigator View and Project Explorer

Drag&Drop between Natural Navigator view and Project Explorer is only possible in one direction: from Project Explorer to Natural Navigator view. It is not supported to drag resources from the Natural Navigator view to the Project Explorer.

4.2.4   Usage of the Versioning Client of Subclipse

If huge Natural libraries with several ten-thousands of Natural objects are committing to Subversion in one go, Subclipse may not be able to finalize the command. To circumvent this issue, make use of a Subversion client tool outside of Eclipse or split the number of Natural
objects into several commit commands.

4.2.5   Using an NSC-secured Natural Development Server on Open Systems

If your Natural project contains objects which have been taken from FUSER and the project is mapped to a Natural server with Natural Security installed, a NAT1684 error message will occur if the *STEPLIB setting for one or more libraries is not specified. To solve this issue, specify SYSTEM as *STEPLIB in the library properties.
This workaround does not work for Natural objects taken from FNAT.

4.3   Ajax Developer

4.3.1   Internal Browser on Suse12

On Suse12 the internal browser is not supported. Use the external browser instead, please.

4.3.2   Using Internet Explorer 11 as Internal Browser

On some Windows PCs, it may happen that Natural for Ajax applications do not run properly when Internet Explorer 11 is used as the internal browser. The easiest solution is to change
the Eclipse preferences (under General > Web Browser) to use an external browser. The issue is related to the Windows registry settings. If switching to the external browser is not a good solution for you, use one of the following solutions:

4.3.2.1 Registry Settings

Applies only if you are experiencing issues with Natural for Ajax pop-ups when using Internet Explorer 11 as the internal browser.
The following may help:
If the registry key
HKEY_CURRENT_USER\Software\Microsoft\Internet Explorer\Main\FeatureControl\FEATURE_BROWSER_EMULATION\javaw.exe
exists, delete this key.
Before you do this, shut down NaturalONE and be very careful when applying the appropriate modifications to the registry. Changing the wrong registry settings can break your Windows. In any case, it is a good idea to back up your registry content before changing it.

4.3.2.2 Eclipse.ini

Add the following 2 lines to the file eclipse.ini and restart Software AG Designer.

-Dorg.eclipse.swt.browser.DefaultType=ie
-Dorg.eclipse.swt.browser.IEVersion=9999

Location of the file eclipse.ini is: <Software AG Install Dir>\Designer\eclipse

4.4   Service Development

4.4.1   Java Client Generation for Business Services

If you generate a Java client from a business service (.bsrv file), make
sure the underlying Natural subprogram data areas do not contain
direction modifier comments (such as "/* in" or "/* out" and the "BY
VALUE" (IN direction) option) on the parameter fields. These are
currently not supported. The resulting generated code will contain
compile errors if they are used.

4.5   RPC Client Generation

4.5.1   Generating Natural Subprograms from Software AG IDL Files

If you open a generated Natural client interface object in your editor,
the "Dependencies" view will show the unknown object NATCLT4. This can
be ignored.

4.6   Test Subprogram

The command "Test Subprogram" is not supported for a generated Natural
client interface. If you choose this command, an error occurs.

4.7   Test Software AG IDL

When you use the command "Test Software AG IDL" with a Natural
subprogram, invoke "File > Options" in the resulting dialog box and
then
make sure that the "Natural Logon" check box is selected. Otherwise,
the
Natural error NAT0082 is issued.

For private-mode libraries, the command "Test Software AG IDL" is
not supported.

4.8   Code Generation

4.8.1   Check Predict for Additional Metadata

If the option "Check Predict for any meta-data" is selected in the

"Code Generation > Natural" preferences, some wizards may appear to
respond slowly when you press a button. This happens when Predict data
is being downloaded using the connection that is defined in the
properties of the Natural project. If you have a slow network
connection, this may appear as if Eclipse is frozen at times.

4.8.2   Support of Unicode Fields When Generating Ajax Pages

Natural subprogram Unicode parameters are not supported when generating
Ajax pages from Code Generation wizards.

4.8.3   Logging has been temporarily removed

The Code Generation Logging has been temporarily removed.
For this reason, the preferences tab "Code Generation > Logging" is no
longer available.

4.9   Continous Integration

4.9.1   Natural Coverage Plugin for Jenkins

Please note that the Natural Coverage Plugin cannot be automatically
downgraded to the previously installed version, although the
"downgrade"
button is offered in the table ...
"Mangage Jenkins" / "Manage Plugins" / "Installed"
This is a known Jenkins bug. See ...
https://issues.jenkins-ci.org/browse/JENKINS-25133

To downgrade to a previous version of the plugin, re-install the plugin
with the option ...
"Mangage Jenkins" / "Manage Plugins" / "Advanced" / "Upload Plugin"

5.   Solved Issues

Information concerning solved issues is recorded in the file Readme.fix