

***** README.TXT *****

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* Product: Natural
* Platform: Windows
* Version: 8.4.1 PL 0
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- 1. Installation
 - 1.1 Entire System Management GUI Clients

Starting with Natural 8.3.1, we introduce the GUI clients for the upcoming versions of Entire Output Management and Entire Operations. GUI clients for Entire Operations 5.3 and Entire Output Management 3.3 still require Natural 6.3.

Natural 8.4.1 contains the following versions of Entire System Management GUI clients:

- Output Management GUI Client (NGC) 3.4.3.10
- Entire Operations GUI Client (OGC) 5.4.3.9
- Mainframe Navigation 8.4.1
- ESM GUI Framework EGF 3.4.4.9

Before installing this Natural for Windows version, you should verify that the requirements for all contained Entire System Management GUI client versions are fulfilled in your environment. For example, NGC 3.4.3 requires availability of Entire Output Management (NOM) 3.4.3 on the server platform.

The online help was created at an early stage of the product freeze phase. The most recent information is included in the Entire System Management documentation which is provided in Empower.

2. Changes and Enhancements

2.1 Natural Buffer Pool Resource Usage

With Natural 8.3, the handling of the shared memory and semaphore keys of the Natural buffer pool has changed.

Natural will now automatically append the value of the variable `INSTALLER_ID` to the specified value of the shared memory and semaphore key of a particular buffer pool. The `INSTALLER_ID` is specified in the `NATURAL.INI` file.

3. Restrictions

3.1 Intended Incompatibility to Natural on Mainframe Computers

The underlying architecture of the different operating systems that are supported by Natural made it necessary to implement some features in a platform-specific way. This means that they will work differently on mainframe and Open Systems platforms. These features are described in the following.

3.1.1 DEFINE WINDOW Statement

The size of the windows and the visible fields within a window differ slightly because of the attribute bytes of the mainframe computers (see the `SIZE` clause of the `DEFINE WINDOW` statement). The `POSITION` clause of the `DEFINE WINDOW` statement is not evaluated. Overlay lines which are positioned on the screen (`%WP` or `CONTROL` clause of the `DEFINE WINDOW` statement) are displayed behind all open windows because they belong to the main screen. Note: If multiple windows are visible, you can move a background window to the front by positioning the cursor in it.

The terminal commands `%WX` and `%WY` are not implemented; they are only available on mainframe computers.

3.2 Buffer Pool

3.2.1 Read-only Buffer Pool

The read-only buffer pool must be large enough to hold all objects described in the preload list.

If the size of a FILEDIR exceeds the available storage in the buffer pool,
the following message occurs:

```
Buffer pool manager returned with error code -1.  
Error 21: User error in loader function occurred.  
The server process was aborted.
```

If more than 16 FILEDIRs are loaded into a read-only buffer pool, the following message may occur:

```
Error processing record ... .  
Buffer pool manager returned with error code 6010.  
Buffer pool is not operational.  
The server process was aborted.
```

In both cases, Natural will not start. Instead, Natural will report startup error 16 with subcode (31).

Source code will not be loaded into the buffer pool.

The preload process will reject preload records describing a source code object. The load process, however, continues.

If Natural uses a secondary buffer pool (see dynamic parameter BPID2), the sizes of the primary read only buffer pool and secondary read/write buffer pool should be the same.

3.3 Database Type ADA2

A database ID that has been defined as database type ADA2 in the global configuration file must not be referenced as physical database ID in an LFILE definition.

The physical database ID in an LFILE assignment has to refer to a database of type ADA.

3.4 Debugging Natural Sources

If an error is found in a Natural source during debugging and you want to continue debugging with the changed and cataloged source, you first have to stop the debug session. After that, you can restart the debug session with the changed and cataloged source.

4. Known Issues

4.1 Online Help

The online help was created at an early stage of the product freeze phase. The most recent information is included in the Natural for Windows documentation which is provided in Empower.

4.2 Contents of the HTML Online Help may not be Displayed

The contents of the Natural HTML online help may not be displayed after installing security update 840315, security update 896358, security update 890175.

To solve this problem, please refer to the following pages:

<http://support.microsoft.com/kb/892675>

<http://support.microsoft.com/kb/896054>

5. Solved Problems

For the list of solved problems, see the file README.FIX.