

Licensing Natural

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License Key File

You must install a valid license key file on all mainframe platforms on which Natural is installed. Your individual product license is shipped on the installation tape. It can also be shipped by e-mail, if desired.

Once the license key file is received, you must use native FTP commands to transfer it to your mainframe host before using it during installation.

Warnings:

- **Using utilities instead of native FTP commands for the license key file transfer may corrupt the license key and thus prevent the later execution of Natural. This applies, for example, to file transfers based on 3270 terminal emulations that do not provide a true binary file transfer, but convert specific characters.**
- **The license key file has to remain in ASCII format — even on the mainframe. It must not be modified. Any modification of the license key file will invalidate the digital signature and the license check will fail. In the event of a check failure, contact your Software AG technical support representative.**

License Key File Installation

During the Natural installation process, the license key file will be converted into an object module which is linked to the Natural nucleus. The installation slightly varies depending on the operating system. See the corresponding step in the platform-specific installation procedures.

Product License Check

Each time a Natural session starts, the license information in the license object module is verified and the validity of the license key is checked. In the event of a license check failure, contact your Software AG technical support representative. For certain failures, for example, CPU ID not defined or CPU capacity exceeded, a message will be issued on the system console and the session will start without further notice.

Product License Check FAQs

1. Why has Software AG introduced a license check for Natural on the Mainframe?

Software AG wants to ensure that customers run Natural only on mainframe machines for which they have valid and sufficient product license. This ensures that we have better control of the use of our software products. On other platforms (UNIX, Windows), the product license check has been established for many years.

2. Which information is contained in a product license?

A product license is a sequential file with US-ASCII text in XML format containing the following items:

- Software AG header
- customer information (Name, ID)
- encrypted license key
- license expiration date (or unlimited)
- product information (product code, version, name)
- environment information (operating system type, CPU ID, system name, capacity)

3. What exactly is meant by the CPU ID?

IBM defines the CPU ID as the "central processing complex node descriptor sequence number". It is the unique hexadecimal machine serial number without the machine model number.

z/OS:

On z/OS systems, information about the CPU can be displayed on the operator console by entering the command:

```
D M=CPU
```

For example, suppose the console output from this command contains these lines:

```
EE174I 16.38.50 DISPLAY M 951
PROCESSOR STATUS
ID CPU SERIAL
00 + 0FA10E2096
01 + 0FA10E2096
CPC ND = 002096.S07.IBM.83.00000007A10E
CPC SI = 2096.V03.IBM.83.00000000007A10E
....
```

In this example, the CPU ID is 7A10E, as highlighted in the example above.

z/VSE:

On z/VSE systems, information about the CPU can be displayed on the operator console by entering the operator command:

```
SIR
```

For example, suppose the console output from this command contains these lines:

```
...
AR 0015 PROCESSOR = IBM 2096-V03 83 (7A10E83) LPAR = DAEX      No. = 0007
....
```

The CPU ID is highlighted in the example.

BS2000/OSD:

On BS2000/OSD systems, the CPU ID (8 byte hexadecimal) consists of the machine serial number, the processor ID and the machine model number. The processor ID in the second byte of the CPU ID is ignored for the license check. Information about the CPU can be displayed by entering the following BS2000/OSD command:

```
/SHOW-SYSTEM-INFORMATION INFORMATION=*CPU-ID-LIST
```

For example, suppose the output from this command contains these lines:

```
...
%CONFIGURATION           = 7.500- S140-20A      «
%CPU-ID-LIST :  ADR    0   = 1D02301375000000 «
...

```

The most relevant information is shown in these lines. The first value identifies the machine type as 7.500- S140-20A, the second value identifies the physical CPU ID as 1D02301375 (trailing zeros can be omitted).

z/VM

On z/VM systems, the CPU ID can be determined entering the command:

```
q cpu
```

Suppose the output from this command is:

```
CPUID = FF07A10E20968000
```

The first byte will always be FF, followed by the CPU-ID (highlighted in the example).

Under Natural:

The following command enables you to display machine information under all operating systems:

```
NATQVS
```

4. Are there product licenses for Natural add-on products, e.g. for Natural for DB2?

No. The license key file is for the base Natural product only. At the moment there are no plans to introduce add-on product licenses.

5. How is the product license key file installed?

The product license key file is supplied on the individual customer installation tape or separately via an e-mail attachment. During the installation process, it is copied to disk. It is then converted into an assembler input file which is then assembled into a linkable module. This module is linked to the Natural nucleus.

6. How can I read the product license key file?

- The product license key file can be read on a PC by means of an XML editor (file type .xml) or any PC text editor.
- During the conversion process, a listing of the license key file is printed by the conversion program.
- When Natural is installed and runs, the license information can be displayed by using function "L" of the Natural utility SYSTP.

7. When is the product license checked?

The product license is checked during every Natural session initialization. There are no license checks during a Natural session after session initialization.

8. Which items of a product license are checked?

- The encrypted license key
- The expiration date (if any)
- The operating system (z/OS, z/VSE, z/VM or BS2000/OSD)
- The product code (NAT, etc.)
- The product version (either *v.r* or *v.r.s*, for further information on product versions, see Version in the *Glossary*)
- The machine CPU ID
- The machine capacity (only for z/OS and z/VM)

9. What happens if the product license is incorrect, insufficient or not installed?

There are two possible reactions: Either an initialization error message is issued and the Natural session continues (a), or a warning is issued on the system console (b). This behaviour may change in a future version of Natural, that is, the Natural session will terminate after such an error or warning is issued.

1. The session starts but an error message is issued on the user terminal in one of the following cases:
 - the product license module is missing or incorrect, or it has been modified
 - incorrect operating system, product code or product version
 - the license expiration date has been reached
2. The session starts but a warning message is issued on the system console in one of the following cases:
 - Your machine CPU ID is not defined in the license or the machine capacity is higher than the value specified in the product license.
 - The product license will expire within the next 30 days.

The warning message is not repeated on the system console for every Natural session. It is issued only once per Natural buffer pool per day.

10. How can I get a new product license key file if the delivered license key file is insufficient for my environment?

Contact your Software AG sales representative to get a correct product license key file according to your contract. It can be shipped by e-mail either in ASCII format or in the converted assembler input format.

11. If I use one Natural nucleus on different machines, how can I handle the license key files?

It is possible to have multiple CPU IDs defined in one license key file. If all your CPU IDs are defined in your license key file, you only need one license module that you link to all your Natural nuclei. For detailed information, contact your Software AG sales representative.

12. Is it possible to have the license module separate from the Natural nucleus?

Yes. The license module can be defined to be loaded dynamically during session start by means of the profile parameters RCA and RCALIAS. Specify in NATPARM or dynamically:

```
RCA=NATLIC,RCALIAS=(NATLIC,name),
```

where *name* is the name of your separately linked license module in the Natural load library.

Using this technique causes any statically linked license module to be replaced. This can be helpful for testing.