

BS2000 C/C++ Time Overflow

(Updated 2017-12-04)

Software AG products on BS2000 are affected by the BS2000 C/C++ time overflow problem which can occur after 19.01.2018.

For details, see the White Paper BS2000 Time Functions provided by Fujitsu.

To ensure that all Software AG products using C/C++ time functions on BS2000 will run properly after this date, the Software AG product versions and fixes listed in the following table **must** be installed:

Table 1: List of affected products

Product Name	Product Code	Required Version(s)	Required Fix(es)
Entire Net-Work (1)	WCA	6.3.2	WCA632L003 + WJ632007
	WCP		WCP632L002 + WB632007
	WTC		No Fix required
Entire System Server	NPR	3.6.2	None
		3.6.1	NPR361L003
EntireX	EXX	8.1.1	EXX811L047
EntireX Remote Procedure Call	EXP	8.1.1	EXP811L050
Natural	NAT	8.2.6 /8.2.7	(3)
Natural TIAM Interface	NRT		
Natural openUTM Interface	NUT		
Natural Development Server	NDV	8.3.3 / 8.3.4	(2) + (3)
		8.2.6 / 8.2.7	(2)
Natural Web I/O Interface	NWO	8.3.3 / 8.3.4 8.2.6 / 8.2.7	(2)
Smarts Application Server	APS	2.7.2	APS272L021

Products not listed in the table above are BS2000 C/C++ time overflow compliant.

(1) Entire Net-Work

All mentioned corrections are **only** valid, if optional zap WY632004 has been applied to turn on the old sockets interface. In that case WB632007 and WJ632007 have to be applied on top of the mentioned patch-libraries.

(2) Smarts Application Server: Fix APS272P021 required

Use the fix APS272P021 (library APS272.L021) in your startup procedures for:

- Natural Development Server (NDV)
- Natural Web I/O Interface (NWO)

You may also copy the library by using the delivered procedure P.MERGELIB, e.g.:

```
/CALL-PROC P.MERGELIB, (PROD-LIB=APS272.LIB, PATCH-LIB=APS272.L021) .
```

(3) Natural Modules NAT2TCP and NATADvrs

Concerning Natural, only the modules NAT2TCP and NATADvrs are affected by the time overflow.

If you use one of these modules (see Table 2) the Natural environment-dependent nuclei (front parts) have to be re-linked with the BS2000 TIMESHIFT bind library.

Table 2: List of affected Natural modules

Module	Function	Product Code	Product Version
NAT2TCP	REQUEST DOCUMENT and PARSE XML Statements	NAT	8.2.6
NATAD833/ NATAD834	Debug Attach Server for NaturalONE	NDV	8.3.3/ 8.3.4

Please note that the module NAT2TCP of Natural Version 8.2.7 uses already the new BS2000 64-bit time function provided by Fujitsu and is not affected.

Pay attention to the correct bind order of the BS2000 TIMESHIFT bind library. It must be defined before the general CRTE library (see Table 3):

Table 3: Example of how to use the BS2000 TIMESHIFT library

BS2000 Binder Procedure	Binder Statements
Old procedure	<pre>// RESOLVE-BY-AUTOLINK LIBRARY = \$SAG.ADA841.MOD // RESOLVE-BY-AUTOLINK LIBRARY = \$.SYSLNK.CRTE</pre>
With BS2000 TIMESHIFT option	<pre>// RESOLVE-BY-AUTOLINK LIBRARY = \$SAG.ADA841.MOD // RESOLVE-BY-AUTOLINK - // LIBRARY = (\$.SYSLNK.CRTE.TIMESHIFT,\$.SYSLNK.CRTE)</pre>

When using System Maintenance Aid (SMA), set the new parameter TIMESHIFT to Y. If this parameter is not yet available in your environment, please go to Empower and get the latest GLOBAL SMA tables.

Then, generate the JCL and submit the generated jobs I060 and I080.

Table 4: List of job steps

Product Name	Product Code	Description	Job	Step
Natural	NAT	Link the environment-dependent nucleus LNATFRNT	I060	3801
Natural TIAM Interface	NRT	Link the environment-dependent nucleus LNRTFRNT	I080	0110
Natural <i>open</i> UTM Interface	NUT	Link the environment-dependent nucleus LNUTFRNT	I080	0210

Document history

Date	What has changed
2017-12-04	Instruction (1) for Entire Net-Work added. NEW: zaps WB632007 and WJ632007 added. Chapters (1) renamed to (2), (2) to (3)
2017-11-28	Changed instruction <i>RESOLVE-BY-AUTOLINK</i> in Table 3: NEW: these both libraries have to be concatenated in one RESOLVE- instruction, TIMESHIFT-library first ! This is to ensure, module ICSTIS7§ is taken from the TIMESHIFT library.