

Asynchronous Natural Processing under CICS

This document contains special considerations that apply when when you are using asynchronous Natural under CICS. The following topics are covered:

- Asynchronous Natural Processing
- Asynchronous Natural Sessions under CICS
- Testing and Debugging

Asynchronous Natural Processing

Asynchronous Natural processing is generally discussed in the section Asynchronous Processing in the Natural Operations for Mainframes documentation; however, some additional considerations apply when running under CICS. These are described in the following sections.

Asynchronous Natural Sessions under CICS

Make sure that appropriate SENDER and OUTDEST destinations are specified for an asynchronous Natural session; otherwise, any output (for example, unexpected error messages) will lead to an abnormal termination.

Also, make sure that a suitable message switching transaction ID (MSGTRAN) is specified in the Natural parameter module NATPARM and defined in CICS.

In addition to CICS terminal IDs and transient data destinations for SENDER and OUTDEST, the following keywords are supported by the Natural CICS interface:

DUMMY	Any output is ignored.
CONSOLE	Any output is routed to the operator console. Internally the terminal ID defined via the CONSOLE parameter of the NCMPRM macro is used. When dealing with the console, the terminal type should be switched accordingly, using the profile parameter TTYPE or %T= set to ASYL or other.

By default, the 3270 data stream protocol is used for output of an asynchronous Natural session under CICS.

It is also possible to send Natural output data without any 3270 terminal or printer control information to, for example, a CICS message destination such as CSSL. This can be accomplished by switching into line mode using a SET CONTROL 'T=' statement or by starting with profile parameter TTYPE=xxxx, where xxxx is BTCH or ASYL. All Natural output is then sent line by line, with a leading ASA control character when the Natural profile parameter EJ is set to ON; with EJ=OFF, no control character is sent at all.



Attention:

When SET CONTROL 'T=xxxx' or SET CONTROL '+' is used, or PC=ON is specified, the Natural system variable *DEVICE will be modified, which means that it can no longer be used to determine an asynchronous Natural session.

Testing and Debugging

Recent CICS versions offer a transaction CEDX which enables tracing of asynchronous tasks in CICS. In earlier CICS versions, this functionality did not exist, that is, such debugging was only possible with terminal-bound tasks.

The Natural CICS Interface NCI offers some assistance in this case: You can test asynchronous Natural sessions by starting that session from a terminal, but either with "ASYN," as the very first five characters in the dynamic parameter string, or with the profile parameter TTYPE=xxx, where xxx is ASYN or ASYL. The Natural CICS interface then sets up an asynchronous Natural session.

Please, note that this emulation is only 100 percent in terms of Natural; CICS keeps on treating the task as terminal bound.