

# Asynchronous Processing

This section provides information on using an asynchronous Natural session.

Asynchronous Natural processing is available under all TP monitors supported by Natural.

The following topics are covered:

- Benefits of Asynchronous Processing
- Defining an Asynchronous Natural Session

Related Topics:

- Asynchronous Natural Processing under CICS
  - Asynchronous Transaction Processing under UTM
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## Benefits of Asynchronous Processing

An asynchronous Natural session is a session which does not require interaction with a terminal user. It can be used to execute a time-consuming task "in the background" without the user having to wait for the task to finish.

## Defining an Asynchronous Natural Session

To identify a session as being asynchronous, proceed as follows:

1. Assign the Natural system variable \*DEVICE with the value "ASYNCH".

The value of \*DEVICE is modified by any SET CONTROL 'T=xxxx' or PC=ON specification; refer also to the description of the %T= terminal command in the Natural Reference documentation or of the PC profile parameter. Therefore, an asynchronous Natural session should be started with PC=OFF. Moreover, \*DEVICE can be set by the profile parameter TTYPE.

2. Specify an output destination.

The asynchronous session is a session that is not associated with any terminal; this means that any output produced by the session cannot simply be displayed on the screen; instead, you have to explicitly specify an output destination. You specify this destination with the Natural profile parameter SENDER when invoking Natural. The SENDER destination applies to hardcopy output and primary reports; any additional reports are sent to the destinations specified with the DEFINE PRINTER statement, just as in a synchronous online session.

3. Specify the destination to which any Natural error message is to be sent.

As an asynchronous session can also cause a Natural error, the destination to which any Natural error message is to be sent must also be specified; this is done with the Natural profile parameter OUTDEST. This parameter also provides an option to have error messages sent to the operator console. After an error message has been sent, Natural terminates the asynchronous session.

4. Change the CLEAR-key indicator default setting, if desired.

To prevent error loop situations, by default the CLEAR-key indicator is passed back to Natural after output has been sent to a destination specified by SENDER or OUTDEST respectively. To pass the ENTER-key indicator back, you can issue a SET CONTROL 'N' statement.

**Note:** When and how output and error messages are output depends on the TP monitor in use.