

Compilation Aspects

Below is an overview of the compilation options and parameters that have an influence on how the completed source code is checked by the compiler and how it is generated into Natural internal object code that can be interpreted and executed by the Natural runtime system.

- Compiler Options and Parameters
- Other Parameters Influencing the Compiler

For more information on the Natural compiler and the different system commands for compiling source code, see the section *Natural Compiler* in the *Natural System Architecture* documentation.

Compiler Options and Parameters

Compilation options can be specified at the following levels:

1. **Statically**

in the Natural parameter module by specifying the

- parameter macro NTCMPO
- profile parameters FS, XREF

2. **Dynamically**

by specifying the profile parameters

- CMPO
- FS, XREF

3. **Within a Natural session**

by specifying

- COMPOPT system command options
- GLOBALS system command (session parameter FS)

4. **For the current Natural programming object**

by specifying

- one or multiple OPTIONS statements

(offering the same options as the COMPOPT system command and, in addition, Natural Optimizer Compiler options);

- SET GLOBALS statement (only session parameters LS, PS, ZP)

Other Parameters Influencing the Compiler

The settings of the following profile or session parameters are considered during compilation and may give rise to an error message in case the source code contains different settings:

| Parameter Name | Short Description | Comment |
|----------------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CFICU | Unicode and Code Page Support | Output of Unicode constants in I/O statements (for example, <code>WRITE U'ABC'</code>) is allowed only when <code>CFICU=ON</code> . |
| CP | Default Code Page Name | Specifies the code page of the source. |
| DC | Character for Decimal Point Notation | Character used for separating integer/precision digits when defining fields of format N or P and constants. |
| FS | Format Specification | Allows or disallows the use of variables that were not defined before. |
| ID | Input Delimiter Character | For example, to delimit values in an <code>INIT</code> clause. |
| LS | Line Size | Specifies the default size for a print line in a report (0 - 31). The setting can be overwritten by specifying an explicit <code>FORMAT</code> statement in the source code. |
| PS | Page Size | Maximum number of lines that may be output by a single I/O statement (for example, <code>WRITE</code>). Non-compliance with the basic setting will cause an error. The setting can be overwritten by specifying an explicit <code>FORMAT</code> statement in the source code. |
| SF | Spacing Factor | Number of spaces to be inserted between field settings of columns on Natural reports created using a <code>DISPLAY</code> statement. The setting can be overwritten by specifying an explicit <code>FORMAT</code> statement in the source code. |
| SOSI | Shift-Out/Shift-In Codes for Double-Byte Character Set | Specifies the shift characters to identify a double-byte character set (DBCS) string. |
| ZP | Zero Printing | Output of blanks or zeros for a numerical constant which contains a value of all zeros. The setting can be overwritten by specifying an explicit <code>FORMAT</code> statement in the source code. |