Keywords and Variables in Direct Commands

This section describes all keywords and variables that are relevant when using direct commands in online or batch mode. Each keyword represents a parameter that is used to specify object selection criteria or set an option for the command being executed. If indicated, a variable value must be supplied with a keyword.

The symbols used in the syntax diagrams shown below correspond to the syntax symbols used for system commands which are explained in *System Command Syntax* in the *System Commands* documentation.

For the direct command syntax to which the keywords refer, including details on the *where-clause* and the *with-clause* mentioned in this section, refer to the object-type specific sections of the SYSMAIN Utility documentation.

This section also covers the following topics:

- Description of Keywords
- Specifying a Range of Names

Description of Keywords

This section explains the keywords and corresponding variable values (if required) used in a direct command.

Keywords are listed alphabetically. Letters in italics represent variable values that must be supplied with a keyword. For each variable value, the Natural data format and length is indicated.

Keyword	Value	Natural Data Format/Length	Explanation
ALL or A	*name*	A9	Only applies to programming objects. The name of the object to be processed or a range of names (see also *Specifying a Range of Names*). Any saved (source) objects and/or cataloged objects are processed.

Keyword	Value	Natural Data Format/Length	Explanation
AS	*new-name*	A8 or A12	Not applicable to DL/I subfiles and DDMs. The new name to be given to an object when it is renamed with the RENAME command. Format/length A12 only applies to debug environments.
	new-number	N4	For error messages: The new number to be given to an error message, or the start number of a range of new numbers to be given to a range of existing error messages when using the RENAME command.
CATALOGED	*name*	A9	Only applies to programming objects. The name of the cataloged object to be processed or a range of names (see also *Specifying a Range of Names*).
CIPHER	*cipher*	A8	The Adabas cipher code of a source file and/or target system file which is used in a *where-clause*. For rules and DDMs: The corresponding DIC specification can be used instead of CIPHER. If *cipher* is specified twice, the one specified last will be used.
DBID	*dbid*	N5	The database ID (DBID) of a source or a target database. The source database contains the system file where the object to be processed is stored. The target database contains the system file to which the object is to be copied or moved, or where the object is renamed (or in the case of an error message, renumbered) if relevant. Valid DBIDs are 1 to 65535. If no DBID or file number (FNR) is specified and SYSMAIN is called with the system command SYSMAIN or the subprogram MAINUSER (see also *Invoking SYSMAIN with Appl. Programming Interface*), the following applies: The DBID and FNR of the system file from which SYSMAIN was called are always used. For example: if you enter SYSMAIN from a library contained in the FUSER system file, the DBID and FNR of this file are used. For rules and DDMs: The corresponding DIC specification can be used instead of DBID. If *dbid* is specified twice, the one specified last will be used.

Keyword	Value	Natural Data Format/Length	Explanation
DDM or VIEW	*name*	A32	Only applies to DDMs. The name of the DDM to be processed or a range of names. See also *Specifying a Range of Names*.
DDMDBID or DDBID	*ddm-dbid*	N5	Only applies to DDMs. The DDM database ID (DBID): All DDMs that were cataloged under the specified DBID are processed. Valid DDM DBIDs are 0 to 65535. If no value or 0 (zero) is specified, the DDM DBID is not checked.
DDMFNR or DFNR	*ddm-fnr*	N5	Only applies to DDMs. The DDM file number (FNR): All DDMs that were cataloged under the specified FNR are processed. Valid DDM FNRs are 0 to 65535. If no value or 0 (zero) is specified, the DDM FNR is not checked.
DEBUG	*name*	A12	Only applies to debug environments. The name of the debug environment to be processed or a range of names. See also *Specifying a Range of Names*.
DIC	*dbid* *fnr* *password* *cipher*	A80	Not applicable to error messages, profiles and DL/I subfiles. Specifies the environment of the FDIC source and/or target system file: database ID (*dbid*), file number (*fnr*), Adabas password (*password*) and Adabas cipher code (*cipher*). For rules and DDMs: DBID, FNR, CIPHER and PASSWORD specifications can be used instead of the corresponding DIC specifications, or vice versa. If an item is specified twice, the one specified last will be used.
DL1 or SUBFILES or S	*name*	A8	Only applies to DL/I subfiles. The name of the DL/I subfile to be processed or a range of names. See also *Specifying a Range of Names*.
ERROR	*number*	N4	Only applies to error messages. The number of the error message to be processed or the start number of a range of numbers if THRU is specified.

Keyword	Value	Natural Data Format/Length	Explanation
EXTEND	-	-	Only applies to programming objects and the LIST or FIND command when being used in batch mode. If EXTEND is *not* specified, a short list of the objects contained in the specified library is displayed. The short list contains the name and the type of the object and indicates whether a source object and/or a cataloged object exists. If EXTEND is specified, an extended list of the objects contained in the specified library is displayed. In addition to the information displayed if EXTEND is not specified, the extended list provides information from the object directory: programming mode, Natural version, user ID, saved/cataloged date and time, and the source of the object (if any).
FROM or FM or IN	*lib-name*	A8	For programming objects, debug environments and error messages: Specifies a source library. For profiles, rules, DDMs and DL/I subfiles: Introduces a *where-clause*.
FMDATE or FMDD	*date-from*	A10	Only applies to programming objects. The start date of a time period: All objects which were saved or cataloged on or after the specified date are processed. If no end date is specified with TODATE , all objects from the specified date are selected for processing. A date must be specified according to the setting of the DTFORM profile parameter (see *DTFORM - Date Format* in the *Parameter Reference* documentation) as indicated in the upper right corner of a SYSMAIN menu screen. The default setting is the international format *YYYY-MM-DD* (*YYYY* = year, *MM* = month, *DD* = day), for example, 2005-08-20.
FMTIME or FMTM or FMTT	*time-from*	A5	Only applies to programming objects and if FMDATE is specified. Specifies a start time: All objects which were saved or cataloged at or after the specified time (and date) are processed. A time must be specified in the format *HH*:*II* (*HH* = hours, *II* = minutes), for example, 11:33.

Keyword	Value	Natural Data Format/Length	Explanation
FNR	*fnr*	N5	The file number (FNR) of a source or a target system file (FNAT, FDIC or FUSER). The source system file contains the object to be processed. The target system file is the system file to which the object is to be copied or moved, or where the object is renamed (or in the case of an error message, renumbered) if relevant. Valid FNRs are 1 to 65535. If no database ID (DBID) or FNR is specified and SYSMAIN is called with the system command SYSMAIN or the subprogram MAINUSER (see also *Invoking SYSMAIN with Appl. Programming Interface*), the following applies: The DBID and FNR of the system file from which SYSMAIN was called are always used. For example: if you enter SYSMAIN from a library contained in the FUSER system file, the DBID and FNR of this file are used. For rules and DDMs: The corresponding DIC specification can be used instead of FNR. If *fnr* is specified twice, the one specified last will be used.
HELP or ?	-	-	Activates online selective processing. You can either include the keyword HELP in the *with-clause* or enter a question mark (?) as the final character of an object name.
LANGUAGE	*language*	A9	Only applies to error messages. The code of the language of the error message to be processed. The languages can be specified using any combination of language codes. For information on which language code is assigned to which language, see *Language Code Assignments* in **LANGUAGE* in the *System Variables* documentation. See also *Specifying Languages*. You can use an asterisk (*) to select all existing languages of the error messages to be processed.

Keyword	Value	Natural Data Format/Length	Explanation
LIBRARY or APPLIC or APL	*lib-name*	A8	Only applies to programming objects, debug environments and error messages. An optional keyword that indicates the name of a source or a target library. If you omit the keyword and respective value, the library where you logged on before you invoked SYSMAIN is used for processing. The source library contains the object to be processed. The target library is the library to which the object is to be copied or moved, or where the object is renamed (or in the case of an error message, renumbered). For system error messages, specify NATURAL-SYSTEM or NATURAL-SYS as *lib-name*. *lib-name* must be specified immediately after the FROM and TO keywords. If the optional keyword LIBRARY is used, it must be entered between FROM or TO and *lib-name*.
MON or NOMON or MONOFF	-	-	Not applicable in batch mode. Activates (MON) or deactivates (NOMON or MONOFF) tracing of the current activity in SYSMAIN. During processing, you are informed as to which object is being read, deleted, updated, added, and whether an error occurs. With programming objects, you are also informed about the action taken with the XRef data. This function is effective only with TP environments which can run in non-conversational mode.
NAME	*vsam-name*	A8	The DDNAME/FCT entry for the source or target file number.
PROMPT or NOPROMPT	-	-	Not applicable in batch mode. Enables (PROMPT) or disables (NOPROMPT) the SYSMAIN prompts. With NOPROMPT, no confirmation screen is displayed. For example, before any deletion, SYSMAIN prompts you for confirmation.
PASSWORD or PSW	*password*	A8	The Adabas password of a source file and/or target system file which is used in a *where-clause*. For rules and DDMs: The corresponding DIC specification can be used instead of PASSWORD. If *password* is specified twice, the one specified last will be used.

Keyword	Value	Natural Data Format/Length	Explanation
PROFILE	*name*	A8	Only applies to profiles. The name of the profile to be processed or a range of names. See also *Specifying a Range of Names*.
RCOP	-	-	Specifies that a copy of the object being renamed is to be made.
REPLACE	-	-	Activates the replace option used in a *with-clause*. An object with the same name in the target environment is replaced by the object to be processed. **Note:** If a programming object is replaced it is also deleted from the Natural buffer pool; any existing cross-reference records are also deleted if Predict is installed.
RULE	*name*	A32	Only applies to rules. The name of the rule to be processed or a range of names. See also *Specifying a Range of Names*.
SAVED	*name*	A9	Only applies to programming objects. The name of the saved (source) object to be processed or a range of names. See also *Specifying a Range of Names*.
SEC	*dbid* *fnr* *password* *cipher*	A80	Not applicable to profiles and DL/I subfiles. Specifies the environment of the FSEC source and/or target system file: database ID (*dbid*), file number (*fnr*), Adabas password (*password*) and Adabas cipher code (*cipher*).
SETNO	*set-number*	N2	The number of the retained Predict set created with the Predict XRef save set option of the LIST XREF command. You can apply all SYSMAIN processing functions to the objects included in this set. If any valid number is specified, SYSMAIN assumes a Predict set. If no number is specified, normal object processing is assumed.
SETLIBRARY	*set-library*	A8	Activates the option to overwrite the library specification for a Predict set as a part of the security for Predict files. SETLIBRARY is only evaluated if a valid number has been specified for SETNO.

Keyword	Value	Natural Data Format/Length	Explanation
SETUSER	*set-user*	A8	Activates the option to overwrite the user-ID specification for a Predict set as a part of the security for Predict files. SETUSER is only evaluated if a valid number has been specified for SETNO.
STOWED or BOTH	*name*	A9	Only applies to programming objects. The name of an object (or a range of names) for which the saved (source) *and* the cataloged object are to be processed (see also *Specifying a Range of Names*). Only an object that exists as both a saved object *and* a cataloged object is processed. The exceptions to this are copycode, text and recording, neither of which can be cataloged. However, they are included in processing when this option is specified.
THRU	*number* or *new-number*	N4	Only applies to error messages. The end number of a range of error message numbers to be processed if a start number is specified with AS .
TID	*terminal-ID*	A8	Only applies to programming object. A terminal ID: All objects that were saved or cataloged on the specified terminal are processed.
TO	*lib-name*	A8	For programming objects, debug environments and error messages: Specifies a target library. For profiles, rules, DDMs and DL/I subfiles: Introduces a *where-clause*.
TODATE or TODD	*date-to*	A10	Only applies to programming objects. The end date of a time period: All objects which were saved or cataloged on or before the specified date are processed. A start date can be specified with FMDATE . A date must be specified according to the setting of the DTFORM profile parameter (see *DTFORM - Date Format* in the *Parameter Reference* documentation) as indicated in the upper right corner of a SYSMAIN menu screen. The default setting is the international format *YYYY-MM-DD* (*YYYY* = year, *MM* = month, *DD* = day), for example, 2005-08-20.

Keyword	Value	Natural Data Format/Length	Explanation
TOTIME or TOTT or TOTM	*time-to*	A5	Only applies to programming objects and if TODATE is specified. The end time of a time period: All objects which were cataloged or saved at or before the specified time (and date) are processed. The time must be specified in the format *HH*:*II* (*HH* = hours, *II* = minutes), for example, 11:33.
TYPE	*type*	-	The type of programming object, error message, profile, rule or DL/I subfile to be processed as listed in *TYPE Specification* below.
USER or USR	*user-id*	A8	Only applies to programming objects. A user ID: All objects that were saved or cataloged by the specified user are processed.
WHERE	*where-clause*	-	An optional keyword that indicates the start of a *where-clause*. The *where-clause* must always follow the FROM or TO keyword and *lib-name* (if relevant); the sequence of the keywords and values within the clause can be specified in any order. For details, see the direct command syntax in the object-type specific sections of the *SYSMAIN Utility* documentation.
WITH	*with-clause*	-	An optional keyword that indicates the start of a *with-clause*. The keywords and values of the *with-clause* can be specified in any order, and the *with-clause* can be placed in any location within the direct command string, except in the first three positions. For details, see the direct command syntax in the object-type specific sections of the *SYSMAIN Utility* documentation.

Keyword	Value	Natural Data Format/Length	Explanation
XREF	F or N or S or Y	A1	Only applies to programming objects. Indicates whether cross-reference (XRef) data stored on Predict system files is to be processed. You can specify one of the following values: F All XRef data is processed and the object must be documented in Predict. N XRef data is not processed, except when using the DELETE command. If a cataloged object is deleted or replaced, SYSMAIN always deletes any existing XRef data for this object. S A specified object is processed regardless of whether it has XRef data or not. Y All XRef data is processed. For further details, see *XRef Considerations*.

TYPE Specification - Programming Objects

Natural Data Format/Length: A20

The following table lists all valid object-type codes for programming objects:

Code	Object Type
P	Program
N	Subprogram
S	Subroutine
M	Map
H	Helproutine
O	ISPF macro
3	Dialog
5	Processor
A	Parameter data area
G	Global data area
L	Local data area
C	Copycode
T	Text
R	Report
Z	Recording
4	Class
7	Function
8	Adapter
9	Resource
*	All programming object types

TYPE Specification - Error Messages

Natural Data Format/Length: A1

The following table lists all valid type codes for error messages:

Code	Type
S	Short error message
E	Extended (long) error message
A	All error message types: short and/or extended messages

TYPE Specification - Profiles

Natural Data Format/Length: A3

The following table lists all valid type codes for profiles:

Code	Type
E	Editor profile
D	Device profile
M	Map profile
P	Parameter profile
*	All profile types.

TYPE Specification - Rules

Natural Data Format/Length: A2

The following table lists all valid type codes for rules:

Code	Type
A	Automatic rule
F	Free rule
AF	All rule types: automatic and/or free rules.

TYPE Specification - DL/I Subfiles

Natural Data Format/Length: A1

The following table lists the valid type codes for DL/I subfiles:

Code	Type
D	NDBs and UDFs
P	NSBs

Specifying a Range of Names

All SYSMAIN functions provide the option to specify either a name or a range of names for the objects to be processed. In addition, in menu mode, on a **Find Selection** or **List Selection** screen, you can specify a name or a range of names to limit the number of objects displayed. See also *To shorten a selection list* in *Using a Selection List*.

When using the find or the list function with programming objects, you can also specify a range of library names. The same applies when using the list function with debug environments or the find function with error messages. However, specifying library ranges may have a negative effect on the response time depending on how often the selection criteria occur.

The valid notations for name ranges are listed below where *value* denotes any combination of one or more characters:

Input	Items Selected
*	All items.
*value**	All items with names that start with *value*. Example: AB* Selected: AB, AB1, ABC, ABEZ Not selected: AA1, ACB
value>	All items with names greater than or equal to *value*. Example: AB> Selected: AB, AB1, BBB, ZZZZZZZ Not selected: AA1, AAB
value<	All items with names less than or equal to *value*. Example: AX< Selected: AB, AWW, AX Not selected: AXA, AY