

**Difference in Specification of Softune Linker
(*FLNK907S*) and Old Linker (*LINK907A*)**

(F²MC-16 Family)

1. Preface

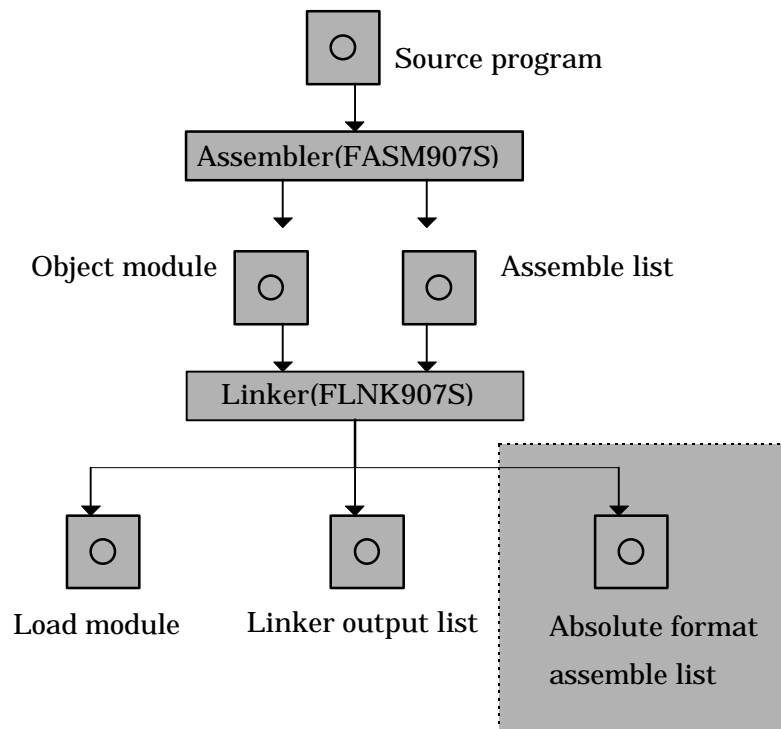
This document describes the difference in the specification of the Softune linker (**FLNK907S**) and the old linker (**LINK907A**).

FLNK907S is updated from **LINK907A** in the following points:

- Command line input
- Absolute assemble list creation function included in linker
- Alleviation of restrictions (input file count, section count, symbol count, etc.)
- Enhancement of environmental variables
- Support for external symbol cross reference information list creation function
- Support for symbol detailed information list creation function
- Support for section map creation function for each module

1.1 Absolute Assemble List Creation Function

The function of the absolute assemble list creation tool (**MEAL907A**), which is another product in the old tool, is included in the linker.



2. Difference in Command Lines

The difference in the command line specification at activation is given in **Tables 2-1** and **2-2**.

Table 2-1 Activation Format for Linker

FLNK907S	LINK907A
flnk907s [option].... [file name]	link907a file name [option]..
	link907a @option file

Table 2-2 Option Specification for Linker

	FLNK907S	LINK907A
Where to specify options	Any position allowed	After specification of file name
Specification of option file	-f option file	@ option file
Specification of two or more option files	Allowed	Not allowed

3. Environmental Variables

The difference in the environmental variables is given in **Table 3**.

Table 3 Environmental Variables

	FLNK907S	LINK907A
Specification of working directory	TMP	TMP
Specification of installation path	FETOOL	
Specification of display character code	FELANG	
Specification of default option file store path	OPT907	
Specification of library retrieval path	LIB907	LIB907 LIB905 LIB902

4. Options

The difference in the options is given in **Tables 4-1** and **4-2**.

Table 4-1 Linker Options

	FLNKB907S	LINK907A
Input file name specification	Not required	-LINK
Load module output specification	Not required	-OBJECT
Load module output suppression		-NOOBJECT
Output load module name specification	-o	-NAME
Debug information output specification	-g	-DEBUG/-DEV
Debug information output suppression	-Xg	-NODEBUG
Absolute format load module output	-a	-FORM A
Relative format load module output	-r	-FORM R
Map list file name specification	-m	-LIST
Map list output suppression	-Xm	-NOLIST
List display part name omission cancel	-dt	
Simple linkage list specification		-BRIEF
List 1 page line count specification	-pl	-PAGELENGTH
List 1 line digit count specification	-pw	-PAGEWIDTH
External symbol cross reference list creation	-xl	CROSS_REFERENCE
External symbol cross reference list file name specification	-xlf	Not required
External symbol cross reference list output suppression	-Xxl	-NOCROSS_REFERENCE
Symbol list output specification	-sl	-LOCAL_SYMBOL
Symbol list file name specification	-slf	Not required
Symbol list output suppression specification	-Xsl	
Section information map output specification	-ml	
Section information map file name specification	-mlf	
Section information map output suppression	-Xml	
Error information file output allowed/suppressed		-[NO]ERRORPRINT
Warning level setting	-w	-[NO]WARNING
ROM area specification	-ro	-ROM_BANK
RAM area specification	-ra	-RAM_BANK

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Section arrangement order (address specification)	-sc	-LOCATE/-SEGMENT
Section group specification	-gr	
Register bank area setting	-rg	-REGISTER_BANK
Auto arrangement specification	-AL	-AUTO_LOCATE
Retrieval library file specification	-l	-LIBRARY
Library retrieval path specification	-L	
Library retrieval for individual symbols	-el	
Library retrieval function suppression	-nl	
Default library retrieval suppression	-nd	
Input address specification	-e	
External symbol value setting	-df	
Status code file output		-RETCODE
Termination of the option file	Not required	-END
Help display	-help	
Target CPU specification	-cpu	-CPU
Default option file input suppression	-Xdof	
Activation message display/no display	-V / -XV	
Warning-time return value change allowed/suppressed	-cwno / -Xcwno	
Termination message display/no display	-cmsg / -Xcmsg	
Input termination specification	Not required	-END

Table 4-1 Absolute Format Assemble List Output

	FLNK907S	MEAL907A
Input directory specification	-alin	-INPUT
Output directory specification	-alout	-OUTPUT
List output specification	-als	
List output module specification	-alsf	-LIST
List output suppression specification	-Xals	-NOLIST
ROM/RAM, ARRAY list output specification	-alr	-ROM_RAM_LIST
ROM/RAM, ARRAY list output module specification	-alrf	-ROM_RAM_LIST
ROM/RAM, ARRAY list output suppression specification	-Xalr	-NOROM_RAM_LIST
ROM/RAM, ARRAY list display position specification	-na -an	-NAME_ADDRESS/ -ADDRESS_NAME

5. Alleviation of Restrictions

The difference in the processing limits is given in *Table 5*.

Table 5 Processing Limits

	FLNK907S	LINK907A
Input file count	65535	1024
Linked module count	65535	3000
Linked section count	65535	8192
External definition symbol count	65535	65535
External reference symbol count	65535	65535