

Fujitsu Windows Runtime Component

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IKAN Solutions N.V.
Kardinaal Mercierplein 2
B-2800 Mechelen
BELGIUM

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Introduction

1.1. Related Products

- MetaStore Manager (and the corresponding batch component MSBSTORE)
- MetaMap Manager (and the corresponding batch component MSBMAP)
- Generator Manager (and the corresponding batch component MSBGEN)

1.2. Terminology

MDL	MetaSuite Definition Language
MXL	MetaSuite Export Language
MGL	MetaSuite Generated Language
MRL	MetaSuite Run Language
CBL	COBOL source
COB	COBOL source
SQB	SQL COBOL source
ECO	Embedded SQL COBOL source
<Ins>	MetaSuite installation folder on the client side

1.3. System Requirements

CPU	Pentium Processor or higher
System RAM	Minimum of 96 MB
Hard disk space	Minimum 300 MB of free disk space for storage of MetaSuite software and .NET Framework.

Operating System	<ul style="list-style-type: none">• Windows Vista• Windows Seven• Windows XP with Service Pack 3
Software	<ul style="list-style-type: none">• Microsoft .NET Framework 2.0 (already included in Windows Vista)• File transfer program (e.g. PC Support)• MT9750 terminal emulator

1.4. Pre-installation Requirements

Before installing the runtime component, you must:

1. Install MetaSuite and select *Fujitsu on Windows* as Generator environment.
For more detailed information, refer to the *Installation and Setup Guide*.
2. Create the MetaSuite Generator Dictionary for Fujitsu on Windows.
For more detailed information, refer to the *Generator Manager User Guide*.

About This Manual

This guide describes how to install the MetaSuite Fujitsu Windows runtime component. More specifically, it describes the installation of the following MetaSuite components:

- Base product
- MetaSuite Database Interfaces

The instructions for these components refer to additional information found in separate documents. Be sure to have those documents available during the installation.

2.1. Prerequisites

Product installers are expected to be familiar with their host operating systems and software installation processes.

2.2. Related Publications

The following table gives an overview of the complete MetaSuite documentation set.

Release Information	Release Notes 8.1.3
Installation Guides	<ul style="list-style-type: none"> • BS2000/OSD Runtime Component • DOS/VSE Runtime Component • Fujitsu Windows Runtime Component • MicroFocus Windows Runtime Component • MicroFocus UNIX Runtime Component • OS/390 and Z/OS Runtime Component • OS/400 Runtime Component • VisualAge Windows Runtime Component • VisualAge UNIX Runtime Component • VMS Runtime Component
User Guides	<ul style="list-style-type: none"> • INI Manager User Guide • Installation and Setup Guide • Introduction Guide • MetaStore Manager User Guide • MetaMap Manager User Guide • Generator Manager User Guide

Technical Guides	<ul style="list-style-type: none"> • ADABAS File Access Guide • IDMS File Access Guide • IMS DLI File Access Guide • RDBMS File Access Guide • XML File Access Guide • Runtime Modules • User-defined Functions User Guide
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If you are unfamiliar with MetaSuite, the following technical description provides you with a brief overview.

The MetaSuite System	MetaSuite is designed for data retrieval, extraction, conversion and reporting. It includes a workstation-based graphical user interface and a mainframe runtime component.
MetaSuite Database Interfaces	MetaSuite can access data from a number of database management systems, using the same commands, program structure and retrieval techniques used for non-database files. Each database interface is available as an optional enhancement to the base product.
MetaMap Manager	MetaMap Manager is the MetaSuite tool used to define models. Such models are intuitively built by describing overall program specifications, input file definitions (data and process) and target file definitions (data and process).
MetaStore Manager	MetaStore Manager is a tool that provides metadata maintenance and documentation services.
Generator Manager	The Generator Manager is the system administration tool. All kinds of basic functionalities and customization possibilities are supported by this tool.

MetaSuite Generator Runtime Installation

3.1. Runtime Components

The `x:\installdirectory\GENFujitsu_Windows\SYSTEM` directory contains the following files:

COBOL sources:	MS*813.cbl
COBOL DLL:	MS*813.dll
Windows scripts:	mkrts813.cmd
	mkcob.cmd
	mkcobrun.cmd

3.2. Install Runtime

Copy all .dll files from `x:\installdirectory\GENFujitsu_Windows\SYSTEM` to `x:\installdirectory\GENFujitsu_Windows\TMP`.

Note: If your COBOL compiler does not support Unicode (i.e., the Unicode functions "display-of" and "national-of" with the option "second argument" to provide a code page (for example 1208 to do the conversion to or from UTF-8)), some runtime programs can not be compiled.

Note: If the .dll files are not found in `x:\installdirectory\GENFujitsu_Windows\SYSTEM`, you must compile all .cbl files residing in the folder `x:\installdirectory\GENFujitsu_Windows\SYSTEM` as subprograms, and copy the resulting .dll files to `x:\installdirectory\GENFujitsu_Windows\TMP`. A procedure is provided to perform this task.

```
cd x:\installdirectory\GENFujitsu_Windows\SYSTEM
mkrts813
```

Compile a MetaSuite Generator Program

x:\installdirectory\GENFujitsu_Windows\SYSTEM contains mkcob.cmd which can be used to (pre-)compile a MetaSuite Generator program.

4.1. Compilation

```
cd x:\installdirectory\GENFujitsu_Windows\MGL
MKCOB MXL-name
```

You should copy the .cmd files from the SYSTEM directory to the TMP directory, and copy the generated COBOL sources from the MGL directory to the TMP directory.

Executing MKCOB MXL-namdel will create a .exe file.

```
del %1.exe
del %1.obj
COBOL32.exe %1.mgl
link %1.obj F3BICIMP.lib libc.lib kernel32.lib user32.lib
/out:%1.exe
```

Run a MetaSuite Generator Program

When a MetaSuite Generator program is run, a template run script is generated as well, which is stored in `x:\installdirectory\GENFujitsu_Windows\MRL\MXL-name.mrl`. You can customize the generation of the template run script by changing the code tables, which are used for the template run script. Refer to the *Generator Manager User Guide* for more information on how the code tables for the template run scripts are built.

Note: The scripts used in the following sections are for documentary purposes only.

5.1. Example

The following is an example run script, which is generated for EX0.MXL.

```
rem Win/NT-95 Runscript For ex0-0001
del ex0.log
del ex0.lst
del ex0.d01
set PPTIPT=NUL
set PPTLID=NUL
set PPTF01=employee-master
set PPTLOG=ex0.log
set PPTLST=ex0.lst
set PPTTD01=ex0.d01
ex0.exe
echo %errorlevel%
```

RDBMS Run Considerations

If you want to connect to a database you need an ODBC-information file.

There are two ways to connect to a database with an ODBC-information file: with or without a COBOL85.cbr file.

1. To connect **without** a COBOL85.cbr file, you can create your ODBC information file by opening a DOS prompt window and typing 'sqlodbc'. Browse to your run-directory and fill in the following window:

Add the following line to the program run script:

```
@ODBC_inf=information file created by sqlodbc
```

The line must appear before the actual call to the executable. This will assign the necessary ODBC connect information to the program at runtime.

2. To connect to a database **with an ODBC-information file**, and a COBOL85.cbr file, you can create your ODBC-information file by opening a DOS prompt window and typing 'sqlodbc'.

Browse to your run-directory and fill in the window the same way as mentioned earlier, and then add the following line to the program run script:

```
['program name']
@EnvSetWindow=UNUSE
@ODBC_inf=information file created by sqlodbc
```

Users can set only 1 runtime variable on the command for security reasons. The next example will set the password:

```
XXXXXXX.exe SYS-DB-PASSWORD = 'password'
```

6.1. DB2/NT

DB2/NT users should supply the following MetaSuite Generator application runtime variable in the PPTIPT file to connect to a specific database:

```
SYS-DB-CONNECT = 'server'
```

6.2. Informix

Informix users should supply the following MetaSuite Generator application runtime variable in the PPTIPT file to connect to a specific database:

```
SYS-DB-CONNECT = 'server'
```

6.3. Oracle

Oracle users should supply the following MetaSuite Generator application runtime variable in the PPTIPT file to connect to a specific database:

```
SYS-DB-CONNECT = 'connect string'
SYS-DB-USER = 'user-id'
SYS-DB-PASSWORD = 'password'
```

You can use as well the transparent logon for Oracle:

```
SYS-DB-CONNECT = '(AUTO)'
```

6.4. SqlServer

SqlServer users should supply the following MetaSuite Generator application runtime variable in the PPTIPT file to connect to a specific database:

```
SYS-DB-CONNECT = 'server'
SYS-DB-USER = 'user-id'
```

6.5. Sybase

Sybase users should supply the following MetaSuite Generator application runtime variable in the PPTIPT file to connect to a specific database:

```
SYS-DB-CONNECT = 'server'
SYS-DB-USER = 'user-id'
SYS-DB-PASSWORD = 'password'
```

6.6. ODBC

If the SQL dialect is set to ODBC then users should supply the following MetaSuite Generator application runtime variable in the PPTIPT file to connect to a specific database:

```
SYS-DB-CONNECT = {'ODBC database name' | '(DBNAME)'}
SYS-DB-USER = 'user-id'
[SYS-DB-PASSWORD = 'password']
```

Special rule:

If SYS-DB-CONNECT = '(DBNAME)' then the DBNAME parameter value (specified in the ADD FILE command in the MDL) will be taken.

The runtime variable SYS-DB-DATABASE however can overwrite this value.

So the logic order is:

```
SYS-DB-CONNECT
SYS-DB-DATABASE (if SYS-DB-CONNECT='(DBNAME)')
File specific DBNAME (if SYS-DB-DATABASE empty)
```