


FUJITSU Software

Technical Computing Suite V2.0

A decorative horizontal band with a red-to-dark-red gradient. It features abstract, glowing white and red lines that swirl and intersect, creating a sense of motion and technology.

Programming Workbench

User's Guide

(PRIMEHPC FX100)

J2UL-1888-01ENZ0(00)
October 2014

Preface

Purpose of This Manual

This guide describes the features of FUJITSU Software Development Tools (referred to as "FSDT" in this guide) and explains how to use it.

Intended Readers

This guide is intended for those who develop programs using FSDT. It is assumed that readers of this guide are familiar with developing programs.

Organization of this Guide

[Chapter 1 Overview of FSDT](#)

Provides an overview of FSDT

[Chapter 2 Basic Flow for Developing Applications](#)

Explains the basic flow for developing application programs using FSDT

[Chapter 3 Login Feature](#)

Explains how to log in to the login node from FSDT

[Chapter 4 Launcher Feature](#)

Explains how to start each FSDT feature

[Chapter 5 File Operating Feature](#)

Explains how to operate files using the File explorer

[Chapter 6 File Editing Feature](#)

Explains how to edit files using the Editor

[Chapter 7 Application Builder Feature](#)

Explains how to create applications

[Chapter 8 Application Executor Feature](#)

Explains how to execute applications

[Appendix A Considerations for Using FSDT](#)

Describes the key points to consider when using FSDT features

[Appendix B Shortcut Keys List](#)

Lists the shortcut keys available in FSDT

Syntax description symbols

A syntax description symbol is a symbol that has specific meaning in syntax. The following symbols are used in this guide.

Symbol name	Symbol	Description
Selection symbol	{ }	Indicates that only one of the enclosed items can be selected
		Is used as a delimiter in a list of items
Optional symbol	[]	Indicates that the enclosed item can be omitted The { } (braces selection symbol) and [] (brackets optional symbol) have the same meaning.
Default symbol	<u> </u> (underline)	Indicates the default value when all items enclosed in [] (brackets optional symbol) are omitted

Symbol name	Symbol	Description
Repeat symbol	...	Indicates that the item just before this symbol can be specified repeatedly

Export Controls

Exportation/release of this document may require necessary procedures in accordance with the regulations of your resident country and/or US export control laws.

Trademarks

- Red Hat is a registered trademark of Red Hat, Inc. in the U.S. and other countries.
- Linux is a registered trademark of Linus Torvalds.
- OpenMP is a trademark of OpenMP Architecture Review Board.
- Mac and Macintosh are trademarks of Apple Inc., registered in the U.S. and other countries.
- Microsoft, Windows and Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Adobe, the Adobe logo, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.
- All other trademarks are the property of their respective owners.

Date of Publication and Version

Version	Manual code
October 2014, 1st Version	J2UL-1888-01ENZ0(00)

Copyright

Copyright FUJITSU LIMITED 2014

<p>All rights reserved. The information in this manual is subject to change without notice.</p>

Contents

Chapter 1 Overview of FSDT.....	1
1.1 Introduction.....	1
1.2 FSDT Components.....	1
1.3 FSDT Features.....	1
Chapter 2 Basic Flow for Developing Applications.....	2
2.1 Preparation.....	2
2.1.1 Install FSDT.....	2
2.2 Development.....	3
2.2.1 Start FSDT.....	3
2.2.2 Create a Program.....	3
2.2.2.1 Create a File.....	3
2.2.2.2 Edit a File.....	4
2.2.3 Build the Application.....	6
2.2.3.1 Create a makefile.....	6
2.2.3.2 Execute the make command.....	6
2.2.4 Execute the Application.....	7
2.2.4.1 Generate a Script for Application Execution.....	7
2.2.4.2 Submit the Script as a Job.....	7
2.2.5 Debug the Application.....	8
2.2.6 Perform the Tuning of the Application.....	9
Chapter 3 Login Feature.....	11
3.1 Accessing the Login Window.....	11
3.2 Login Window Elements.....	11
3.3 Usage Considerations.....	12
Chapter 4 Launcher Feature.....	13
4.1 Launcher Feature.....	13
4.2 Main Window Elements.....	13
4.3 Usage Considerations.....	14
Chapter 5 File Operating Feature.....	15
5.1 File Operating Feature.....	15
5.2 File Explorer Window Elements.....	15
5.3 Usage Considerations.....	17
Chapter 6 File Editing Feature.....	18
6.1 File Editing Feature.....	18
6.2 Editor Window Elements.....	18
6.3 Shortcut.....	20
6.4 Option.....	20
6.5 Usage Considerations.....	21
Chapter 7 Application Builder Feature.....	22
7.1 Application Builder Feature.....	22
7.1.1 Create a makefile.....	22
7.1.2 Execute the make command.....	22
7.2 Console Window Elements.....	22
7.3 Usage Considerations.....	24
Chapter 8 Application Executor Feature.....	25
8.1 Application Executor Feature.....	25
8.1.1 Create a Script for Application Execution.....	25
8.1.2 Submit the Script as a Job.....	25
8.2 Console Window Elements.....	25

8.3 Usage Considerations..... 27

Appendix A Considerations for Using FSDT..... 28

 A.1 Login Feature..... 28

 A.2 Launcher Feature..... 28

 A.3 File Operating Feature..... 28

 A.4 File Editing Feature..... 28

 A.5 Application Builder Feature..... 29

 A.6 Application Executor Feature..... 29

Appendix B Shortcut Keys List..... 31

Chapter 1 Overview of FSDT

This chapter describes the features and basic concepts of FSDT.

1.1 Introduction

FSDT is a GUI development environment that supports various phases of application program development.

It provides advanced development tools such as the File explorer, the Editor, the Debugger, and the Profiler.

1.2 FSDT Components

FSDT consists of a GUI on the user terminal and a login node processing unit (Web service program) on the login node.

GUI

The GUI provides the development support features of FSDT. Using the GUI, you can create, edit, compile, and execute programs.

Login node processing unit

The login node processing unit is a Web service program for processing on the login node. It can be accessed from the GUI.

1.3 FSDT Features

FSDT features are described below.

Table 1.1 FSDT features

Feature	Description
Login feature	Displays the Login window to log in to the login node and start the main window of FSDT
Launcher feature	Displays the main window with all FSDT features <ul style="list-style-type: none">- File operating feature (File explorer)- File editing feature (Editor)- Application builder feature (Builder)- Application executor feature (Executor)- Debugging feature (Debugger)- Profiling feature (Profiler)
File operating feature	Provides the File explorer that enables file creation/operation
File editing feature	Provides the Editor that enables content display/editing
Application builder feature	Provides the Builder that enables application creation
Application executor feature	Provides the Executor that supports application execution
Debugging feature	Provides the Debugger that enables application debugging
Profiling feature	Provides the Profiler that enables application tuning

Chapter 2 Basic Flow for Developing Applications

This chapter describes the basic flow for developing application programs using FSDT.

2.1 Preparation

2.1.1 Install FSDT

Install FSDT in the user terminal.

1. Display "User GUI install page" in web browser of the user terminal.

Please contact the system administrator about URL of this page.

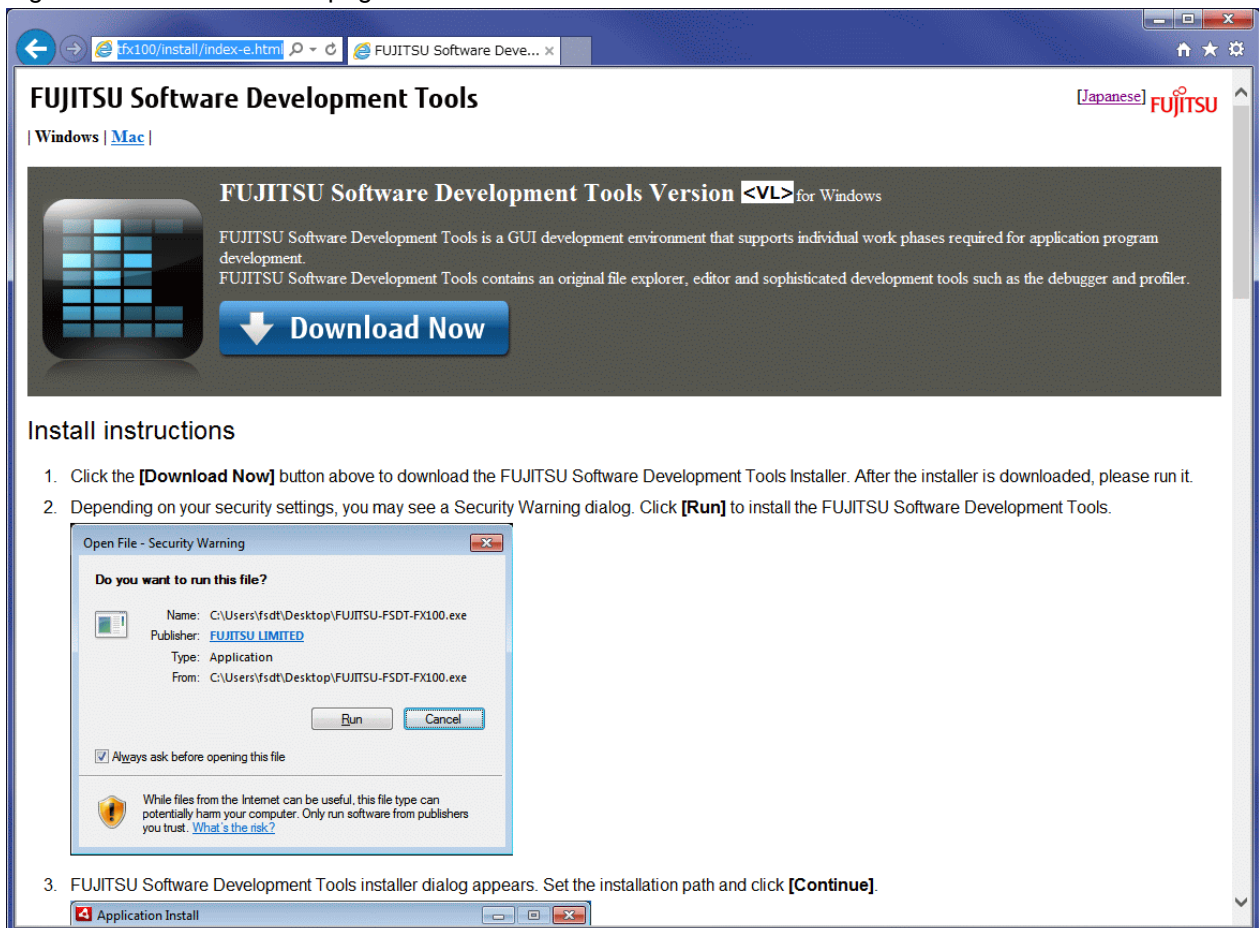
2. Click [Download Now] button at "User GUI install page".

The installer will be downloaded in the user terminal.

3. Execute the installer and install.

Please refer "User GUI install page" for next step.

Figure 2.1 User GUI install page



Note

"<VL>" is the version of the FJSMxlang package.

Moreover, the uninstallation can be done in the control panel or "User GUI install page".

2.2 Development

2.2.1 Start FSDT

Start FSDT to display the main window in the user terminal.

1. Run **FUJITSU Software Development Tools** on the user terminal.
The **Login** window will be displayed.
2. Specify IP address or hostname of the login node, username/password of the login account. Click **Ok** button.
If the authentication is successful, the main window appears.

Figure 2.2 Login window

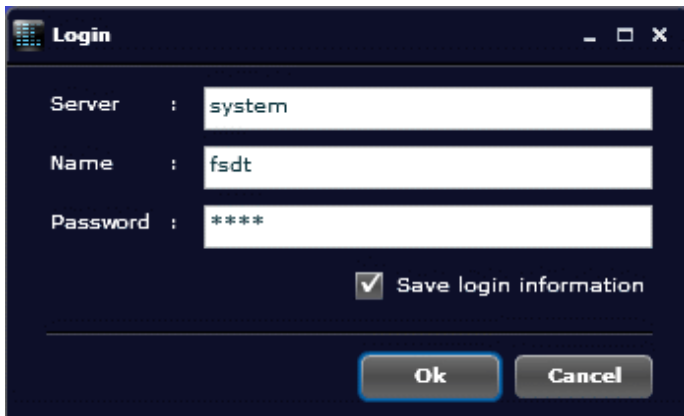


Figure 2.3 Main window



2.2.2 Create a Program

This section explains how to create a program using FSDT.

2.2.2.1 Create a File

Create a file using the File explorer.

1. Click the **File explorer** icon in the main window.
The **File explorer** window will be displayed.
2. In the tree area of the **File explorer** window, select the folder where the file is to be created. On the menu bar, click **File > New > File**.
A file node is displayed as selected in the list area.

3. Change the name of the selected file to provide a meaningful name.

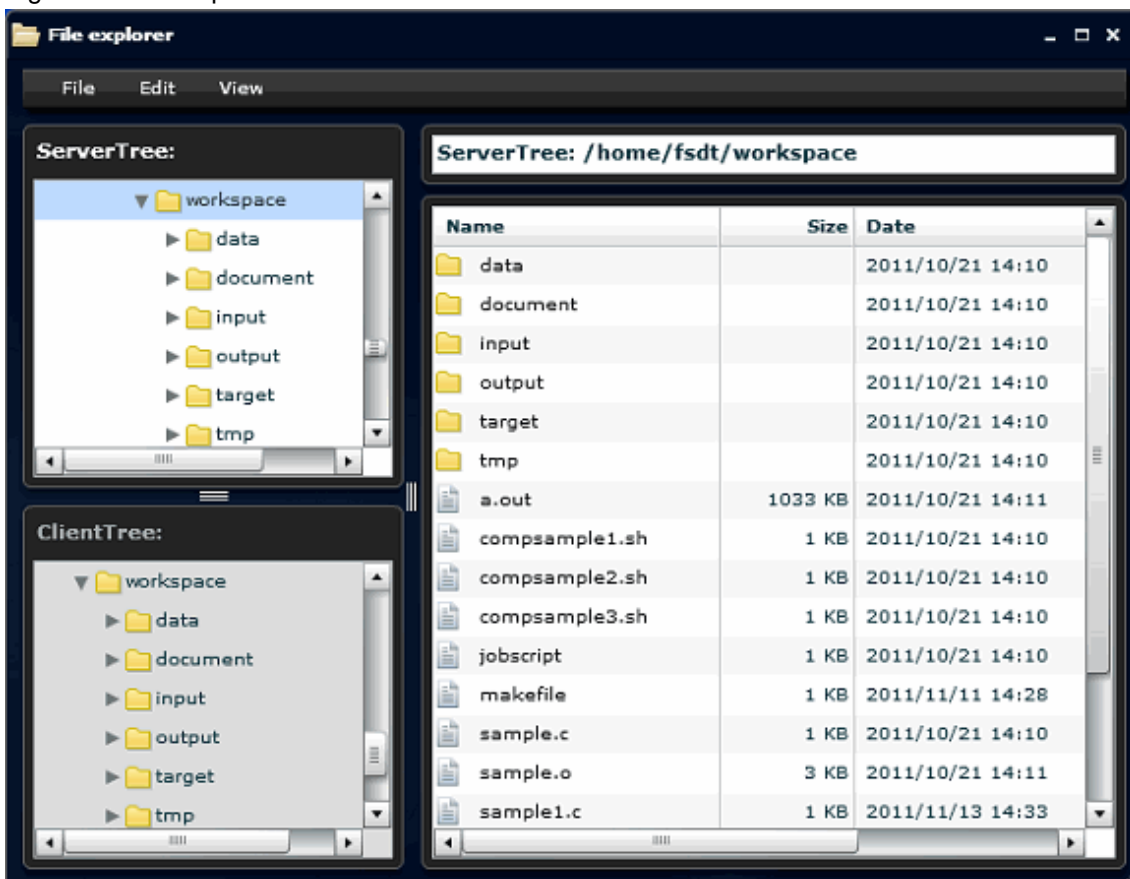
A new file is created.

Refer to "[Chapter 5 File Operating Feature](#)" for information on the File explorer.

Figure 2.4 File explorer icon



Figure 2.5 File explorer window



2.2.2.2 Edit a File

Edit a file by using the Editor.

1. Click the **Editor** icon in the main window.

The **Editor** window will be displayed.

2. On the menu bar, click **File > Open ...**.
The file chooser window will be displayed.
3. Specify a filename, and then click **Open**.
The file will be displayed in the Editor.

Refer to "[Chapter 6 File Editing Feature](#)" for information on the Editor.

Figure 2.6 Editor icon



Figure 2.7 File chooser window

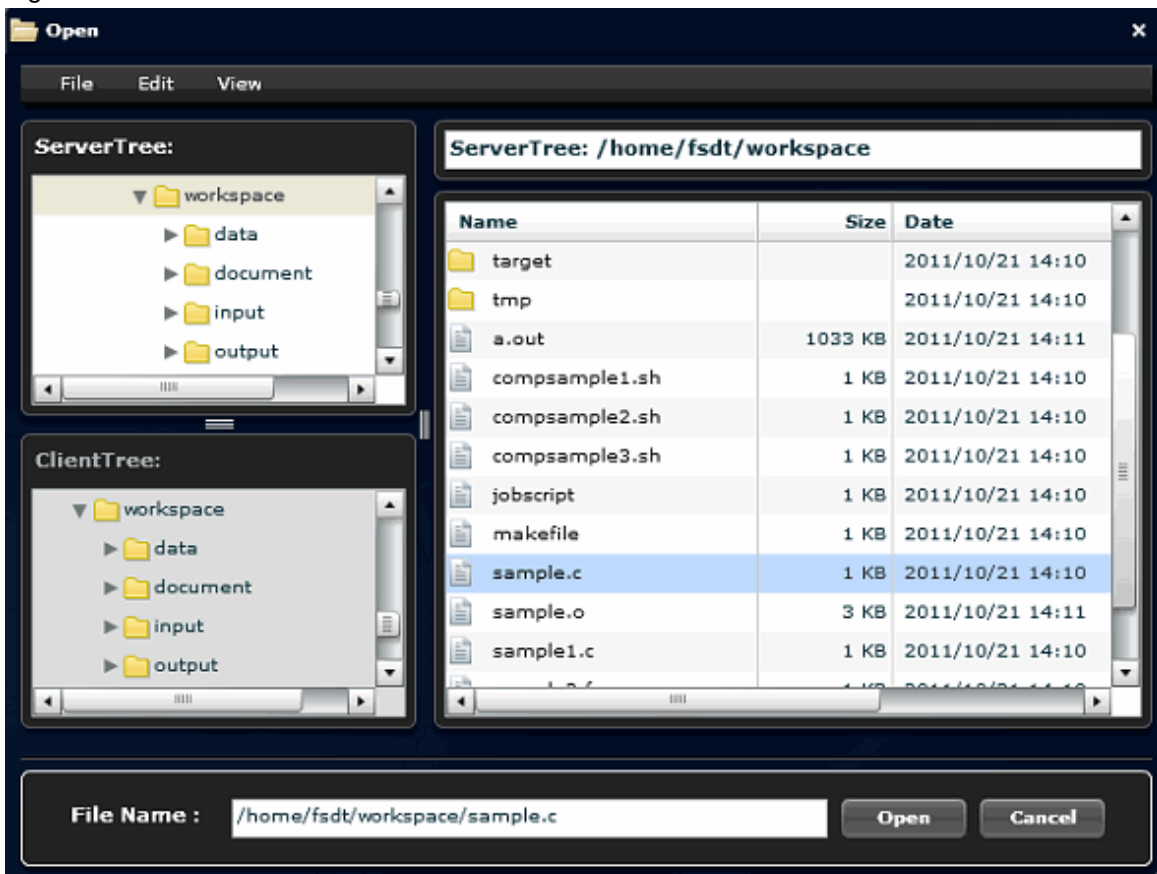
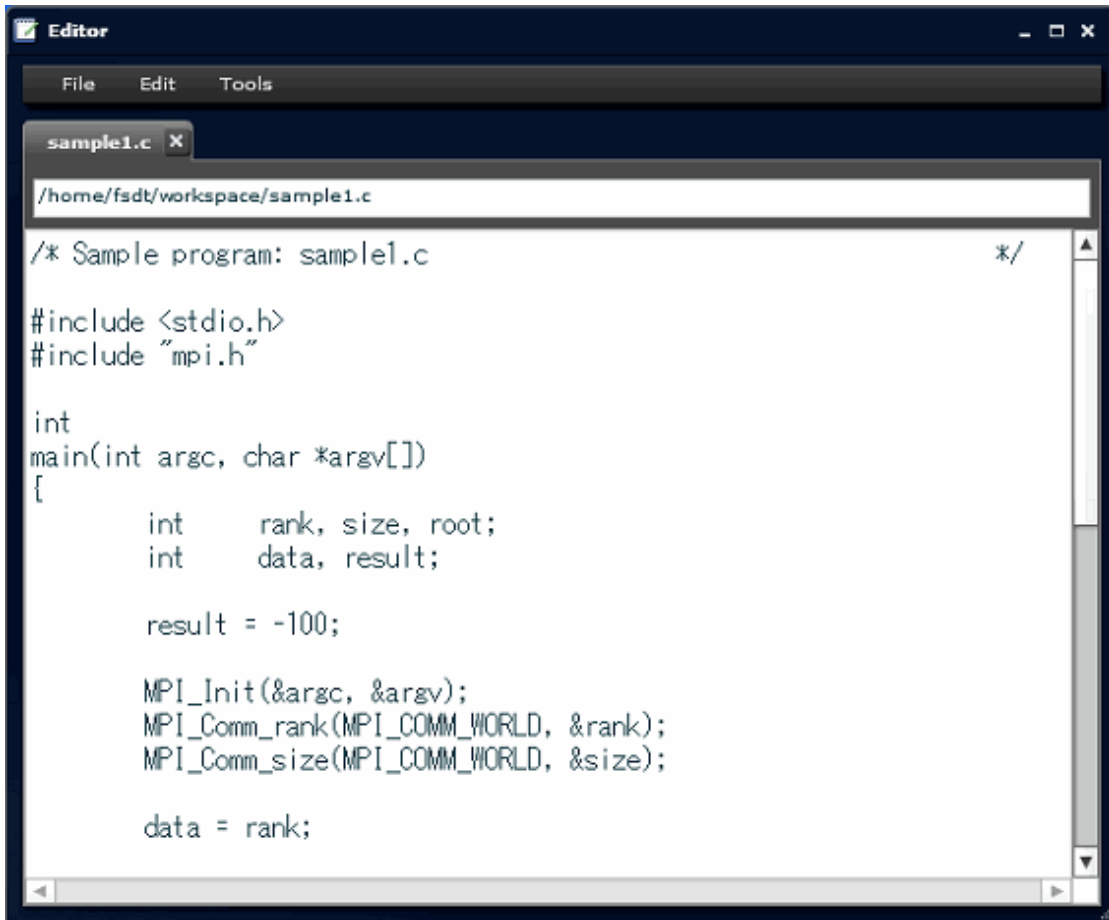


Figure 2.8 Editor window



2.2.3 Build the Application

This section explains how to build an application using FSDT.

2.2.3.1 Create a makefile

Create a makefile by using the File explorer and the Editor on the login node.

2.2.3.2 Execute the make command

Execute the makefile using the make command in the Builder.

1. Click the **Builder** icon in the main window.

The **Console** window with **make** tab selected will be displayed.

2. Specify the argument for the make command in the **Command** box, and then click **Enter**.

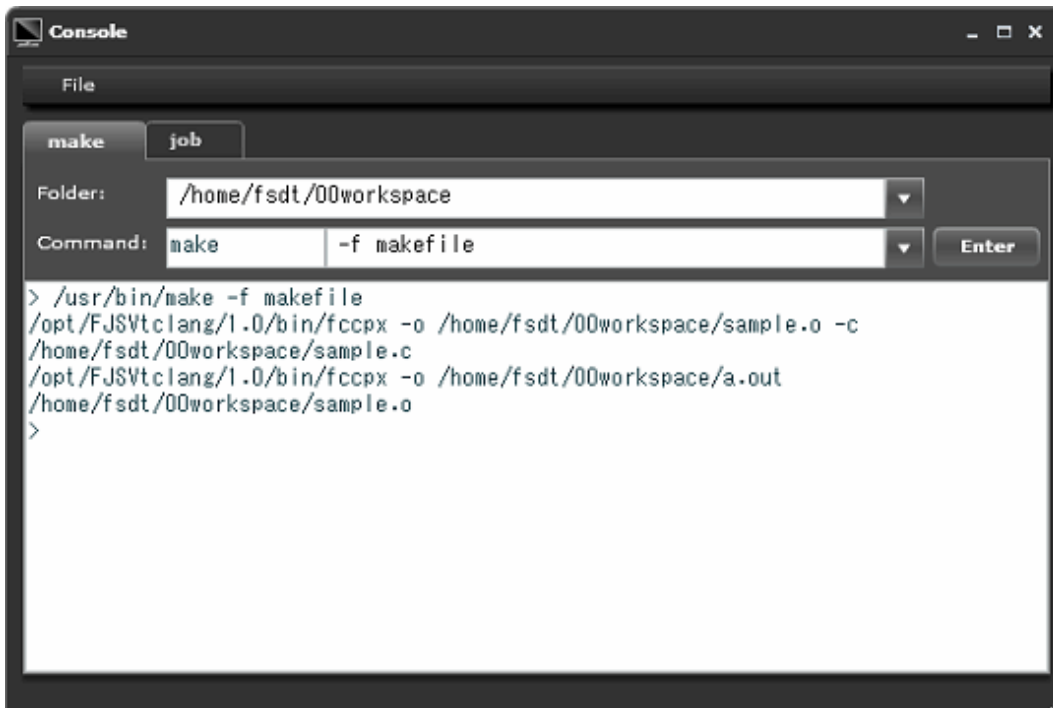
The make command is executed.

Refer to "[Chapter 7 Application Builder Feature](#)" for information on the **make** tab in the **Console** window.

Figure 2.9 Builder icon



Figure 2.10 Console window (make tab is selected)



2.2.4 Execute the Application

This section explains how to execute an application using FSDT.

2.2.4.1 Generate a Script for Application Execution

Generate a script for application execution on the login node by using the File explorer and the Editor.

2.2.4.2 Submit the Script as a Job

Submit the script for application execution as a job using the Executor.

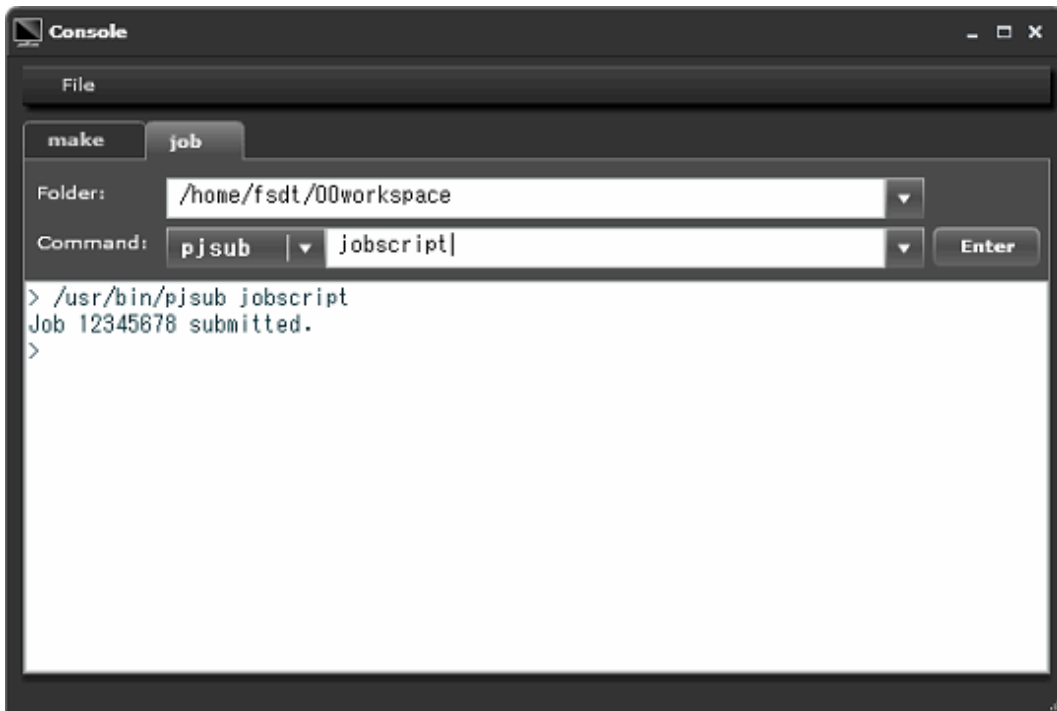
1. Click the **Executor** icon in the main window.
The **Console** window with the **job** tab selected will be displayed.
2. Specify the argument for the pjsub command in the **Command** box, and then click **Enter**.
The pjsub command is executed.

Refer to "Chapter 8 Application Executor Feature" for information on the Executor.

Figure 2.11 Executor icon



Figure 2.12 Console window (job tab is selected)



2.2.5 Debug the Application

Debug the application by using the Debugger.

1. Click the **Debugger** icon in the main window.

The Debugger window (**Debugger start setting**) will be displayed.

Refer to the "*Debugger User's Guide*" for information on the Debugger.

Figure 2.13 Debugger icon

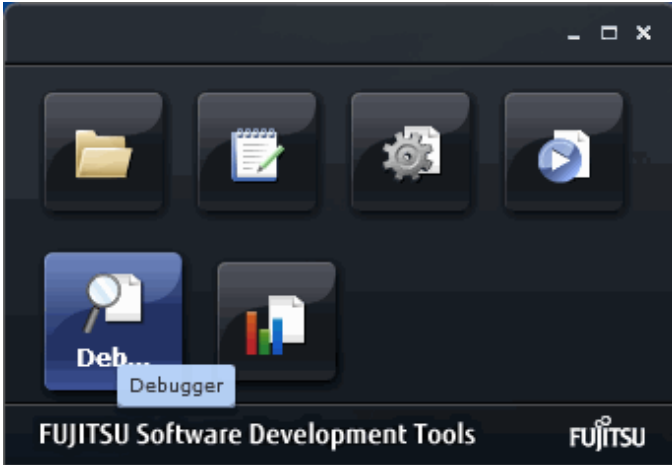
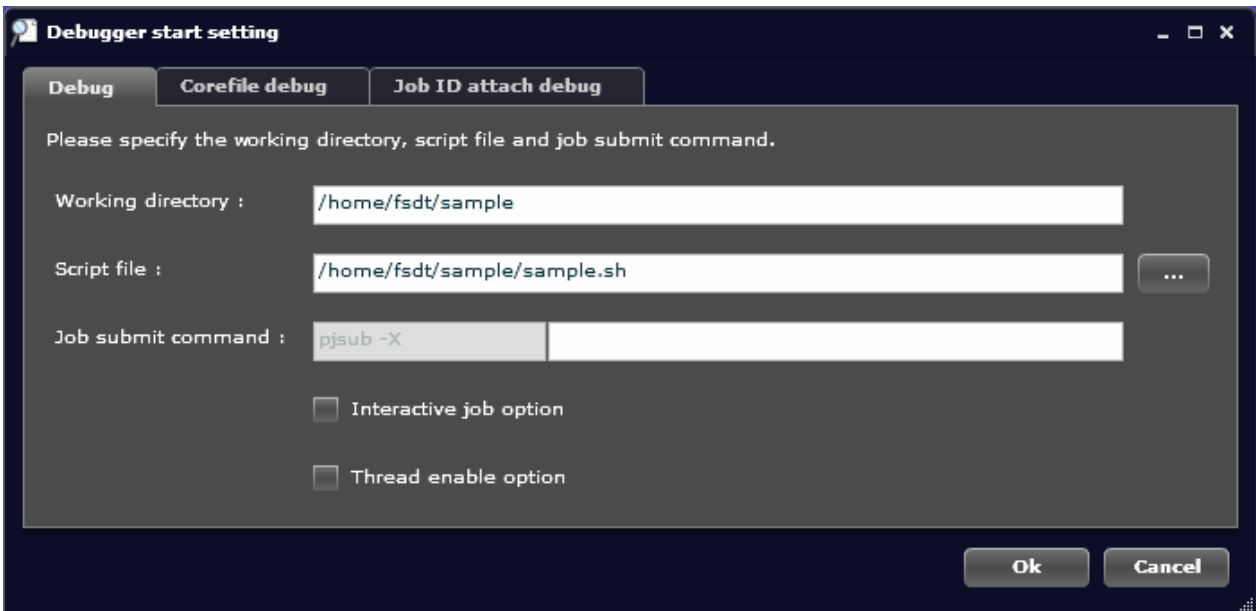


Figure 2.14 Debugger window (Debugger start setting)



2.2.6 Perform the Tuning of the Application

Perform the tuning of the application by using the Profiler.

1. Click the **Profiler** icon in the main window.

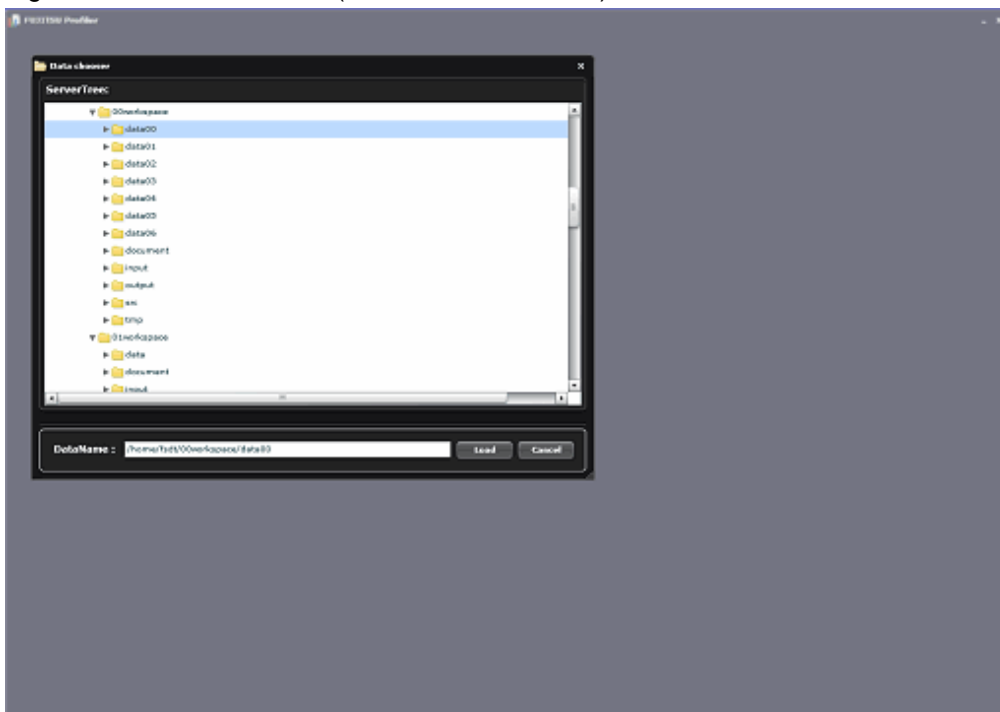
The Profiler window (**Data chooser window**) will be displayed.

Refer to the "*Profiler User's Guide*" for information on the Profiler.

Figure 2.15 Profiler icon



Figure 2.16 Profiler window (Data chooser window)



Chapter 3 Login Feature

This chapter describes the login feature of FSDT.

3.1 Accessing the Login Window

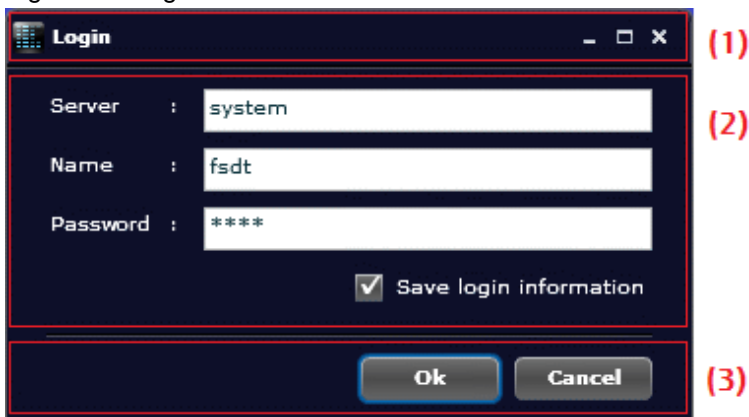
The login feature provides the **Login** window to log in to the login node and display the main window of FSDT.

1. Click **FUJITSU Software Development Tools** on the **Start** menu of the user terminal to display the Login window.

3.2 Login Window Elements

The **Login** window comprises the following elements:

Figure 3.1 Login window



(1)Header Area

The window title, "Login", is displayed in the header area.

(2)Input Area

The following input items are displayed in the input area.

Table 3.1 Input items (Login window)

Name	Description
Server	Specify the IP address or host name of the login node.
Name	Specify a username of the login account.
Password	Specify a password of the login account.
Save login information	Select this check box to save the server and name information.

(3)Buttons Area

The following buttons are displayed in the buttons area.

Table 3.2 Buttons (Login window)

Name	Description
Ok	Uses the information provided in the input area for login If the login succeeds, the Login window is closed and the main window is displayed.
Cancel	Closes the Login window

3.3 Usage Considerations

Refer to "[A.1 Login Feature](#)" in "[Appendix A Considerations for Using FSDT](#)" for information on the considerations for using the **Login** feature.

Chapter 4 Launcher Feature

This chapter describes the launcher feature of FSDT.

4.1 Launcher Feature

The launcher feature provides the main window that starts all FSDT features.

- File operating feature (File explorer)
- File editing feature (Editor)
- Application builder feature (Builder)
- Application executor feature (Executor)
- Debugging feature (Debugger)
- Profiling feature (Profiler)

1. In the **Login** window, specify the IP address or host name of the login node, username/password of the login account, and then click **Ok** button.

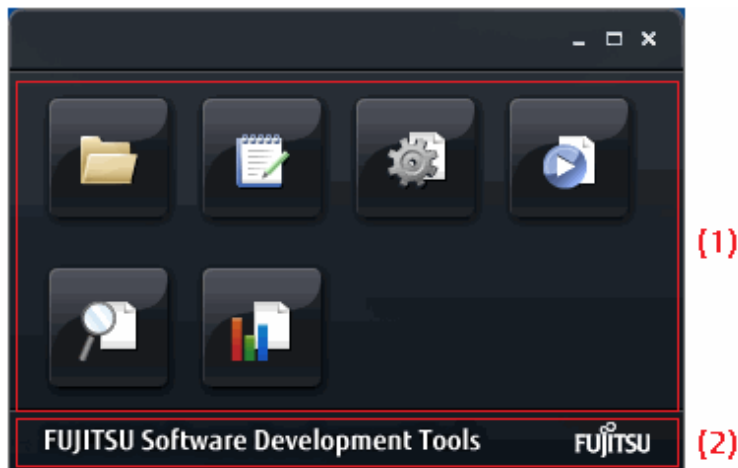
If the authentication succeeds, the main window is displayed.

Refer to "[Chapter 3 Login Feature](#)" for information on the **Login** window.

4.2 Main Window Elements

The main window comprises the following elements:

Figure 4.1 Main window



(1) Icon Area

The icons that start each FSDT feature are provided in the icon area.

You can start a feature by simply clicking the relevant icon. Move the pointer over an icon to view the feature it represents.

The following icons are displayed in the icon area.

Table 4.1 Icons (main window)

Icon	Description
File explorer	Displays the File explorer
Editor	Starts the Editor

Icon	Description
Builder	Starts the Builder
Executor	Starts the Executor
Debugger	Starts the Debugger (Debugger start setting window)
Profiler	Starts the Profiler (Data chooser window)

Additionally, a pop-up menu is displayed on right-click.

The following commands are displayed on the pop-up menu.

Table 4.2 Pop-up menu (main window)

Name		Description
File	Exit	Closes the main window and exits FSDT
View	Always on top	Select this check box to display the main window always on the top
Tools	File explorer	Displays the File explorer
	Editor	Starts the Editor
	Builder	Starts the Builder
	Executor	Starts the Executor
	Debugger	Starts the Debugger (Debugger start setting window)
	Profiler	Starts the Profiler (Data chooser window)
Help	About	Displays information about FSDT

(2)Footer Area

The window title, "FUJITSU Software Development Tools", is displayed in the footer area.

4.3 Usage Considerations

Refer to "[A.2 Launcher Feature](#)" in "[Appendix A Considerations for Using FSDT](#)" for information on the considerations for using the launcher feature.

Chapter 5 File Operating Feature

This chapter describes the file operating feature of FSDT.

5.1 File Operating Feature

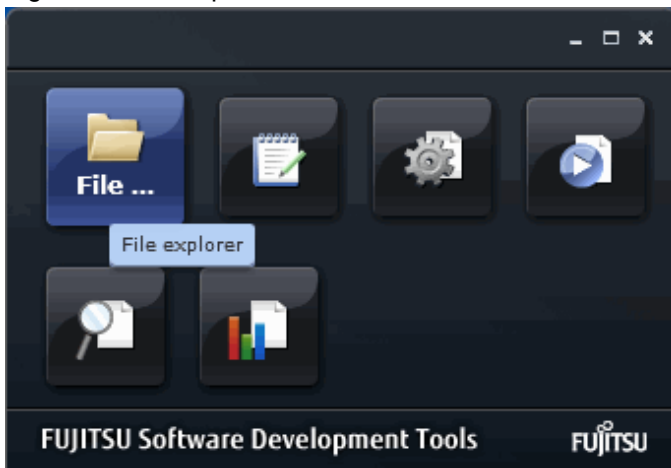
The file operating feature provides the File explorer that assists in creating and operating files.

1. To start the File explorer, click the **File explorer** icon in the main window.

Doing this displays the **File explorer** window.

Refer to "[Chapter 4 Launcher Feature](#)" for information on the main window.

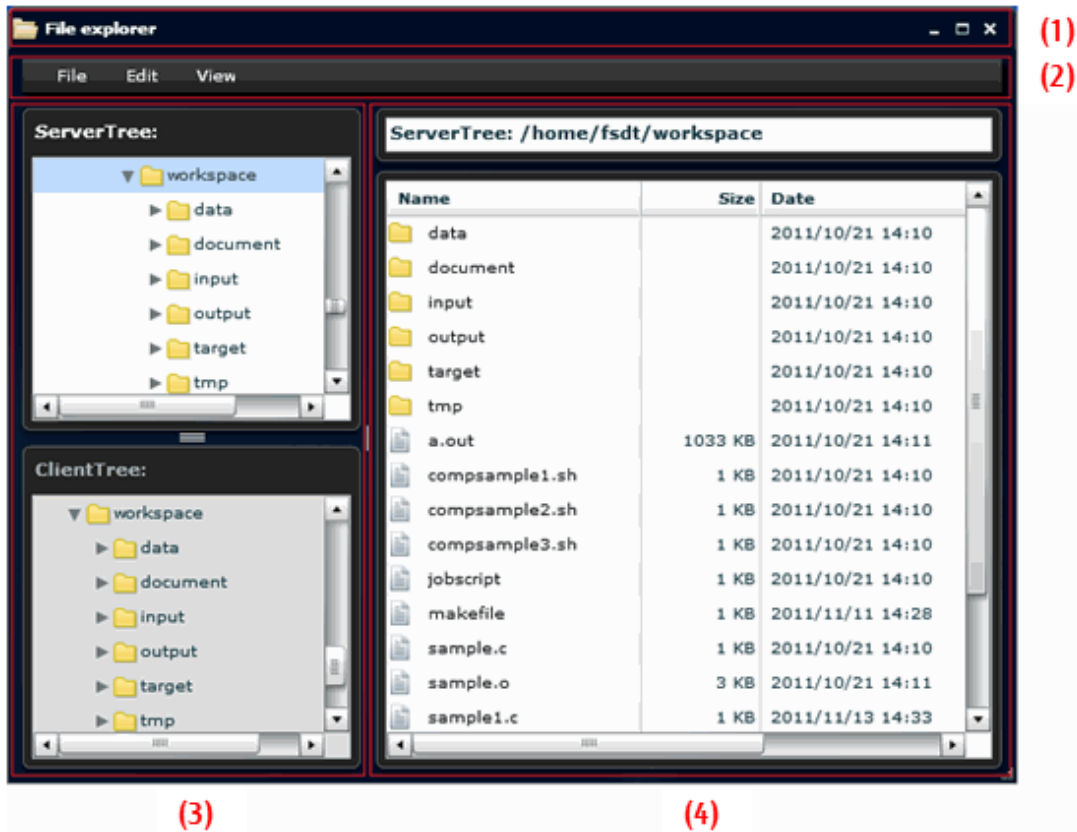
Figure 5.1 File explorer icon



5.2 File Explorer Window Elements

The **File explorer** window comprises the following elements:

Figure 5.2 File explorer window



(1)Header Area

The window title, "File explorer", is displayed in the header area.

(2)Menu Bar

The menu bar enables various File explorer features.

Table 5.1 Menu bar (File explorer window)

Name		Description	
File	Open	Opens the selected file in the Editor	
	New	File	Creates a new file
		Folder	Creates a new folder
	Delete	Deletes the selected item	
	Rename	Renames the selected item	
	Exit	Closes the File explorer window	
Edit	Copy	Copies the selection to the Clipboard	
	Paste	Pastes the file or folder from the Clipboard	
View	Select listing view columns ...	Displays the SelectColumns where you can select the check boxes for the columns you want to display in the list area	
	Refresh	Updates the information in the list area	

(3)Tree Area

The tree area displays the folder structure of the user terminal and the login node.

(4)List Area

The list area displays the contents of the folder selected in the tree area in a list. Click a column header to sort its contents.

Additionally, a pop-up menu is displayed on right-click.

The following commands are displayed on the menu.

Note that these commands are displayed depending on whether an item is selected or not.

Table 5.2 Pop-up menu (List area, no selection)

Name		Description
Refresh		Same functionality as View > Refresh on the menu bar
Paste		Same functionality as Edit > Paste on the menu bar
New	File	Same functionality as File > New > File on the menu bar
	Folder	Same functionality as File > New > Folder on the menu bar

Table 5.3 Pop-up menu (List area, item selected)

Command	Description
Open	Same functionality as File > Open on the menu bar
Copy	Same functionality as Edit > Copy on the menu bar
Delete	Same functionality as File > Delete on the menu bar
Rename	Same functionality as File > Rename on the menu bar

5.3 Usage Considerations

Refer to "[A.3 File Operating Feature](#)" in "[Appendix A Considerations for Using FSDT](#)" for information on the considerations for using the file operating feature.

Chapter 6 File Editing Feature

This chapter describes the file editing feature of FSDT.

6.1 File Editing Feature

The file editing feature provides the Editor that enables you to view/edit content.

1. To start the Editor, click the **Editor** icon in the main window.

Doing this displays the **Editor** window.

Refer to "[Chapter 4 Launcher Feature](#)" for information on the main window.

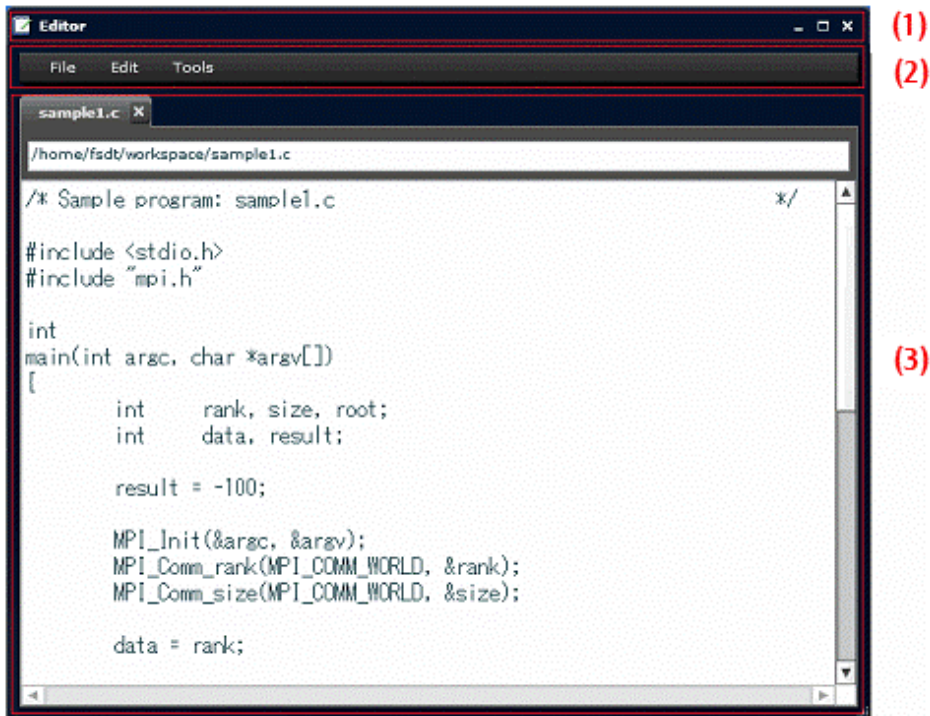
Figure 6.1 Editor icon



6.2 Editor Window Elements

The **Editor** window comprises the following elements:

Figure 6.2 Editor window



(1)Header Area

The window title, "Editor", is displayed in the header area.

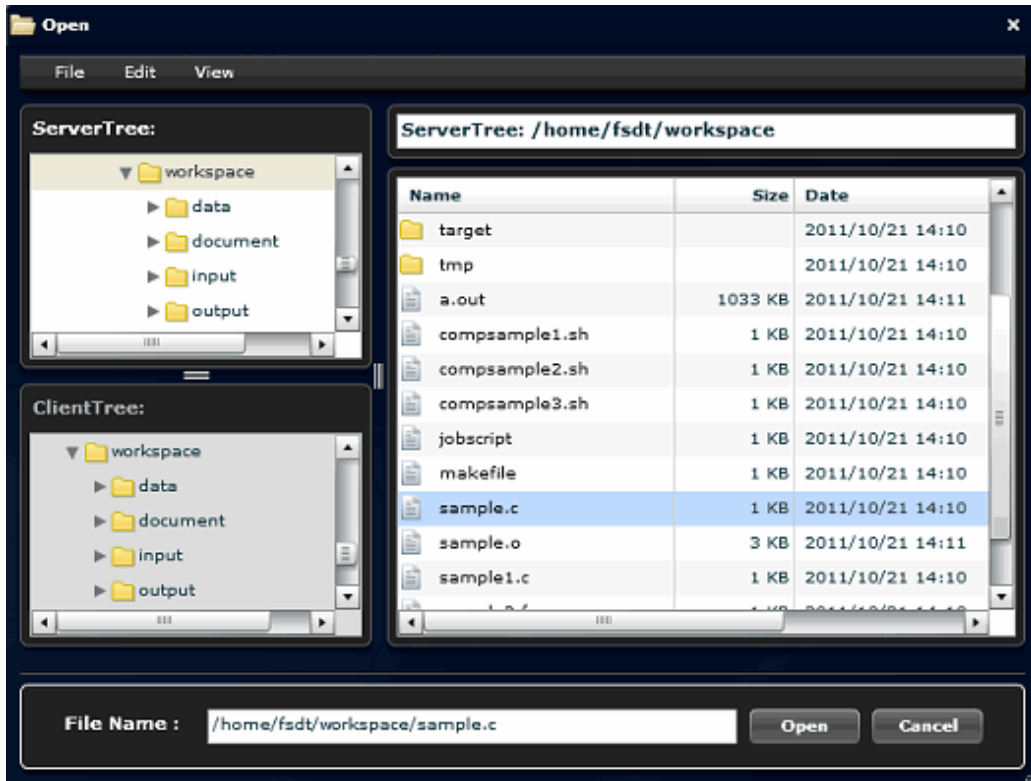
(2)Menu Bar

The menu bar enables various Editor features.

Table 6.1 Menu bar (Editor window)

Name		Description
File	New	Opens a new tab
	Open ...	Opens the file specified in the file chooser window in the Editor
	Save	Saves the file being edited
	Save as ...	Saves the file being editing with the name specified in the file chooser window
	Exit	Closes the Editor
Edit	Cut	Deletes the selection and saves it to the Clipboard
	Copy	Copies the selection to the Clipboard
	Paste	Pastes content from the Clipboard
	Find ...	Searches for the specified keyword
Tools	Options ...	Displays the Options window where you can configure settings for the Editor

Figure 6.3 File chooser window



(3)View Area

The view area consists of the file tab, file path area, line number area, and text area.

The name of the file open in the text area is displayed on the file tab.

You can close the file tab by clicking the **Close** icon on the tab.

The full path and the status of the file displayed in the text area are provided in the file path area. In the file status information, "modified" means that the file is currently being edited and "read only" means the read-only attribute.

The file content is displayed and edited in the text area.

Additionally, a pop-up menu is displayed on right-click.

The following commands are displayed on the menu.

Table 6.2 Pop-up menu (Editor window)

Name	Description
Cut	Same functionality as Edit > Cut on the menu bar
Copy	Same functionality as Edit > Copy on the menu bar
Paste	Same functionality as Edit > Paste on the menu bar

6.3 Shortcut

Keyboard shortcuts are also available for some Editor features.

Refer to "[Appendix B Shortcut Keys List](#)" for information on the shortcut keys that can be used in the Editor.

6.4 Option

You can change the text display settings of the Editor by using the **Options** window.

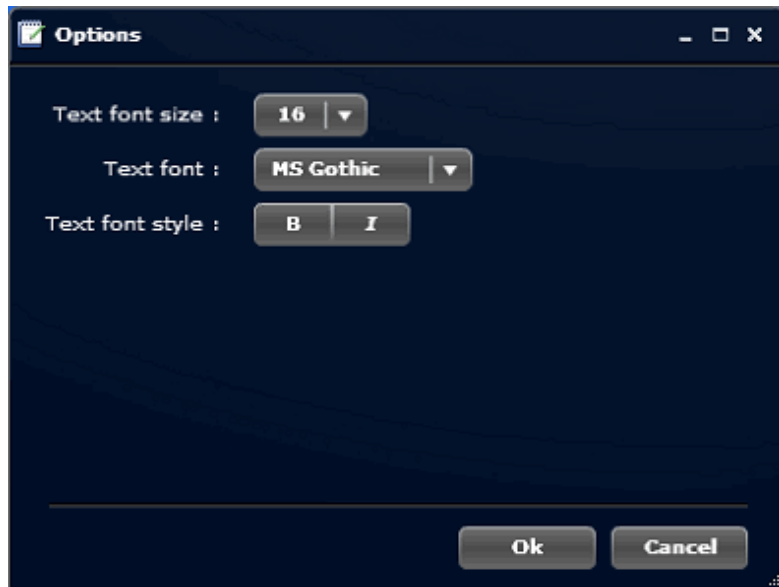
Click **Tools > Options ...** on the menu bar to display the **Options** window.

The following items can be set in this window.

Table 6.3 Editor option

Name		Description
Font	Text font size	Specify a size for the text.
	Text font	Specify a font for the text.
	Text font style	Specify a style for the text.

Figure 6.4 Options window (Editor window)



6.5 Usage Considerations

Refer to "[A.4 File Editing Feature](#)" in "[Appendix A Considerations for Using FSDT](#)" for information on the considerations for using the file editing feature.

Chapter 7 Application Builder Feature

This chapter describes the application builder feature of FSDT.

7.1 Application Builder Feature

The application builder feature uses the File explorer and the Editor to create a makefile, and then uses the Builder to execute the make command.

This section explains how to build an application using FSDT.

7.1.1 Create a makefile

Create a makefile by using the File explorer and the Editor on the login node.

Refer to "[Chapter 5 File Operating Feature](#)" for information on the File explorer.

Refer to "[Chapter 6 File Editing Feature](#)" for information on the Editor.

7.1.2 Execute the make command

Execute the make command in the Builder to process the makefile.

1. Click the **Builder** icon in the main window.

The **Console** window with the **make** tab selected will be displayed.

2. In the **Command** area, specify the argument for the make command, and then click **Enter**.

Doing this executes the make command.

Refer to "[Chapter 4 Launcher Feature](#)" for information on the main window.

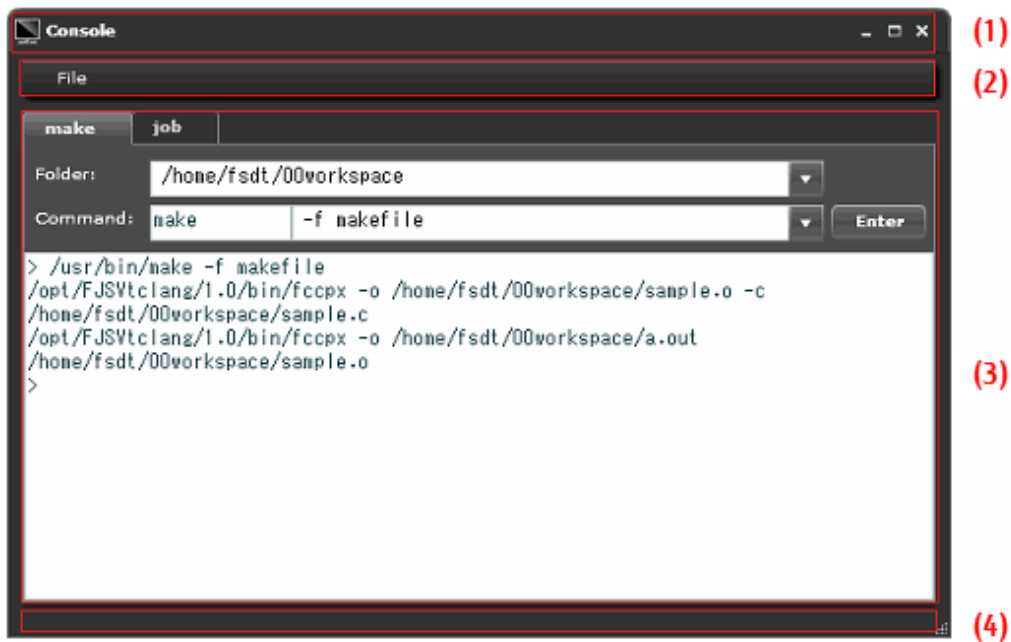
Figure 7.1 Builder icon



7.2 Console Window Elements

The **Console** window comprises the following elements:

Figure 7.2 Console window (make tab is selected)



(1)Header Area

The window title, "Console", is displayed in the header area.

(2)Menu Bar

The menu bar enables Console features.

Table 7.1 Menu bar (Console window)

Name		Description
File	Exit	Closes the Console window

(3)make Tab

The **Command** area and the response area are displayed on the **make** tab.

The argument for the make command or the executed folder can be specified in the **Command** area.

Click **Enter** to execute the command.

The argument for the make command or the history of the executed folder can be referred to/specified using the combo box. Up to 10 latest history items are maintained and duplicate information is not retained.

The character string of the executed command and the response are displayed in the response area.

Additionally, a pop-up menu is displayed on right-click.

The following commands are displayed on the menu.

Table 7.2 Pop-up menu (Console window)

Name	Description
Copy	Copies the selected character strings to the Clipboard
Clear	Deletes all character strings
SelectAll	Selects all character strings

(4)Footer Area

The status information is displayed in the footer area.

Table 7.3 Status information (Console window)

Name	Description
RUNNING...	Indicates that the command is being executed

7.3 Usage Considerations

Refer to "[A.5 Application Builder Feature](#)" in "[Appendix A Considerations for Using FSDT](#)" for information on the considerations for using the application builder feature.

Chapter 8 Application Executor Feature

This chapter describes the application executor feature of FSDT.

8.1 Application Executor Feature

The application executor feature uses the File explorer and the Editor to create a script for application execution, and then uses the Executor to submit the script as a job.

This section explains how to execute an application using FSDT.

8.1.1 Create a Script for Application Execution

Create a script for application execution on the login node by using the File explorer and the Editor.

Refer to "[Chapter 5 File Operating Feature](#)" for information on the File explorer.

Refer to "[Chapter 6 File Editing Feature](#)" for information on the Editor.

8.1.2 Submit the Script as a Job

Submit the script for application execution as a job by using the Executor.

1. Click the **Executor** icon in the main window.

The **Console** window with the **job** tab selected will be displayed.

2. In the **Command** area, specify the argument for the pjsub command, and then click **Enter**.

Doing this executes the pjsub command.

Refer to "[Chapter 4 Launcher Feature](#)" for information on the main window.

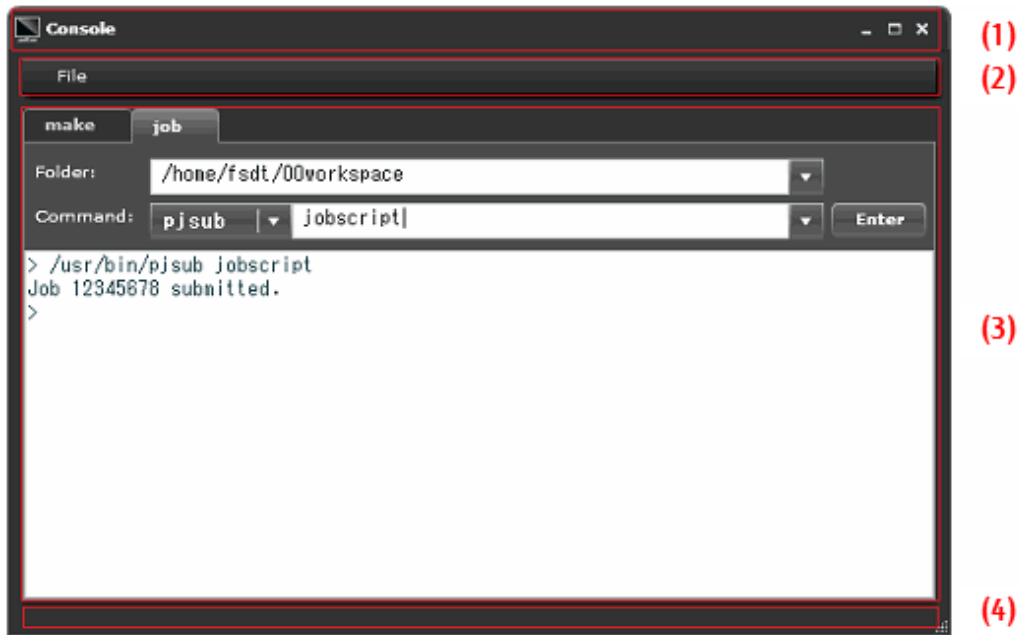
Figure 8.1 Executor icon



8.2 Console Window Elements

The **Console** window comprises the following elements:

Figure 8.2 Console window (job tab is selected)



(1)Header Area

The window title, "Console", is displayed in the header area.

(2)Menu Bar

The menu bar enables Console features.

Table 8.1 Menu bar (Console window)

Name		Description
File	Exit	Closes the Console window

(3)job Tab

The **Command** area and the response area are displayed on the **job** tab.

The executed command (pjsub/pjstat/pjdel), the command argument, or the executed folder can be specified in the **Command** area.

Click **Enter** to execute the command.

The argument for the executed command or the history of the executed folder can be referred to/specified using the combo box. Up to 10 latest history items are maintained and duplicate information is not retained.

The character string of the executed command and the response are displayed in the response area.

Additionally, a pop-up menu is displayed on right-click.

The following commands are displayed on the menu.

Table 8.2 Pop-up menu (Console window)

Name	Description
Copy	Copies the selected character strings to the Clipboard
Clear	Deletes all character strings
SelectAll	Selects all character strings

(4)Footer Area

The status information is displayed in the footer area.

Table 8.3 Status information (Console window)

Name	Description
RUNNING...	Indicates that the command is being executed

8.3 Usage Considerations

Refer to "[A.6 Application Executor Feature](#)" in "[Appendix A Considerations for Using FSDT](#)" for information on the considerations for using the application executor feature.

Appendix A Considerations for Using FSDT

This chapter describes the considerations for using various FSDT features.

A.1 Login Feature

Prepare the login account

If the available login account is unknown, please contact the system administrator.

Server certificate

If a warning window is displayed, the server certificate of the login node may be unreliable. Contact the system administrator.

A.2 Launcher Feature

No considerations apply.

A.3 File Operating Feature

Character code (line feed character)

The character code (line feed character) of a file is not changed during file transfer between the user terminal and the login node.

File name, file path

The following special characters and the blank character cannot be used in a file name/file path.

`\,;:*?"<>|$#!@&'()^[]{}``

User terminal folders without the read permission

When a user terminal folder that does not have the read permission is displayed in the list area, a message informing that such a folder exists is not displayed.

File transfer

Files exceeding 20 MB cannot be copied across the user terminal or the login node.

A.4 File Editing Feature

Character code (line feed character)

The character code (line feed character) used for file read/write is UTF-8 (LF).

Displaying time

Files exceeding 2 MB cannot be used because they take time to display.

If any of the following operations are performed on a file that is 2 MB or less, it may take almost 3 seconds to display.

- Resize window
- Scroll
- Move the cursor
- Key input
- Open

- Save
- Cut
- Paste

A.5 Application Builder Feature

Command area on the make tab in the Console window

The following special characters cannot be used in the **Command** area.

Input area for the command argument:

\;<>|\$&'`#!

Input area for the execution folder:

\,;:*?"<>|\$#!@&'()^[]{} ` blank character

Environment variable settings

To use the application builder feature, the following environment variables must be correctly set in a makefile.

Table A.1 Environment variables

Variable	Value to be set
PATH	/opt/FJSMxlang/bin
LD_LIBRARY_PATH	/opt/FJSMxlang/lib64

Command paths

If a command path is unknown, contact the system administrator.

A.6 Application Executor Feature

Command area on the job tab in the Console window

The following special characters cannot be used in the **Command** area.

Input area for the command argument:

\;<>|\$&'`#!

Input area for the execution folder:

\,;:*?"<>|\$#!@&'()^[]{} ` blank character

Environment variable settings

To use the application executor feature, the following environment variables must be correctly set in a script for application execution.

Table A.2 Environment variables

Variable	Value to be set
PATH	/opt/FJSMxlang/bin
LD_LIBRARY_PATH	/opt/FJSMxlang/lib64

To use the batch queuing system or the MPI system, additional settings besides those mentioned above may be necessary. Refer to the "Job Operation Software manual" for information on the batch queuing system. Refer to the "*MPI User's Guide*" for information on the MPI system.

Interactive jobs

Interactive jobs cannot be used.

If an interactive job is submitted, delete the job.

Command paths

If a command path is unknown, contact the system administrator.

Appendix B Shortcut Keys List

In this document, shortcut keys are specified as [*modifier*]+[*key_name*] where [*modifier*] is the key specified in the following table.

Table B.1 Modifiers

[<i>modifier</i>]	Description
C	Ctrl key

For example, C+A means that both the A key and the Ctrl key must be pressed simultaneously.

Shortcut keys that can be used in the Editor are given below.

Table B.2 Shortcut keys for the Editor (Windows)

Function	Key combination
File > New on the menu bar	C+N
File > Open ... on the menu bar	C+O
File > Save on the menu bar	C+S
Edit > Cut on the menu bar	C+X
Edit > Copy on the menu bar	C+C
Edit > Paste on the menu bar	C+V
Edit > Find ... on the menu bar	C+F
Move the cursor to the right of the current position	RIGHT Arrow key
Move the cursor to the left of the current position	LEFT Arrow key
Move the cursor upward from the current position	UP Arrow key
Move the cursor downward from the current position	DOWN Arrow key
Move the cursor to the start of a line	HOME
Move the cursor to the end of a line	END
Move the cursor to the start of a file	C+HOME
Move the cursor to the end of a file	C+END
Delete one character just after the cursor	DELETE
Delete one character just before the cursor	BACKSPACE
Insert a line feed character at the current position	ENTER
Insert a TAB space at the current position	TAB

Table B.3 Shortcut keys for the Editor (Macintosh)

Function	Menu	Key combination
File > New on the menu bar	-	command+N or C+N
File > Open ... on the menu bar	-	command+O or C+O
File > Save on the menu bar	-	command+S or C+S
Edit > Cut on the menu bar	Edit > Cut	command+X
Edit > Copy on the menu bar	Edit > Copy	command+C
Edit > Paste on the menu bar	Edit > Paste	command+V
Edit > Find ... on the menu bar	-	command+F or C+F
Select all	Edit > Select All	command+A
Move the cursor to the right of the current position	-	RIGHT Arrow key

Function	Menu	Key combination
Move the cursor to the left of the current position	-	LEFT Arrow key
Move the cursor upward from the current position	-	UP Arrow key
Move the cursor downward from the current position	-	DOWN Arrow key
Move the cursor to the start of a line	-	HOME
Move the cursor to the end of a line	-	END
Move the cursor to the start of a file	-	C+HOME
Move the cursor to the end of a file	-	C+END
Delete one character just after the cursor	-	fn+DELETE
Delete one character just before the cursor	-	DELETE
Insert a line feed character at the current position	-	ENTER
Insert a TAB space at the current position	-	TAB

For Macintosh, in the following user's guide, replace the "right-click" action with "click while holding down the Ctrl key".

- *Programming Workbench User's Guide*
- *Debugger User's Guide*