

4. Automating code development

JBuilder 9

"Introducing JBuilder"

Chapter 6. Automating code development

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, JAVA

JBuilder

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4.1 Automating code development

JBuilder

Visual Design tool, menu designer, column designer, content pane [Design] tab, object gallery [Wizards]

CodeInsight, ErrorInsight, code templates, Sync Edit

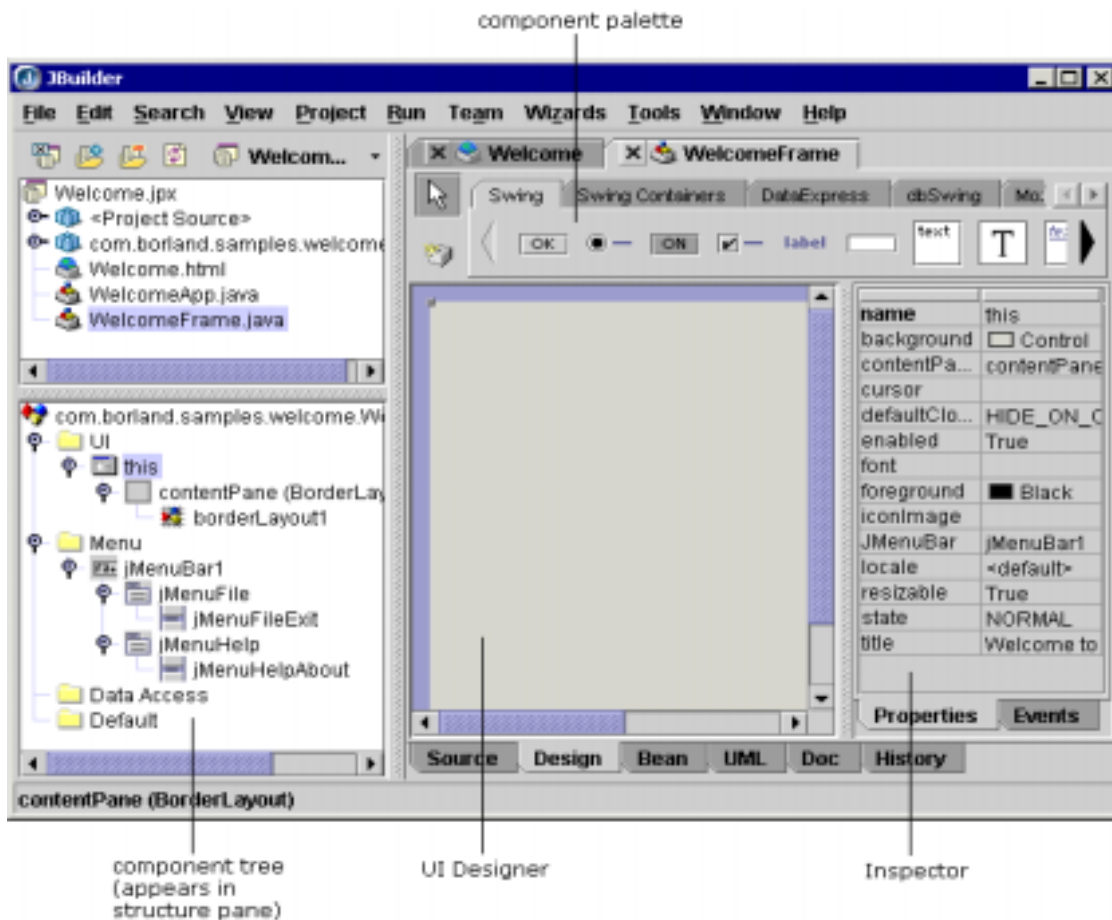
CodeInsight code template [Tools|Editor Options]

Editor pane context menu 가 Sync Edit Editor structure 가 [Edit|Sync Edit]

Sync Edit JBuilder Developer Enterprise

4.2 Working with the visual design tools

JBuilder visual design tools component palette, Inspector, several designers, component tree, source file content pane, Design tab



designer UI designer, menu designer, column designer content
pane [Design] design . listbox button
UI Designer .
content pane [Design] tab , JBuilder UI
designer . UI 가 Component tree [UI] .
menu designer . Menu component tree
[Menu] . menu designer [Menu] Designer
.

4.3 Using the object gallery

object gallery . object gallery [File|New]
object gallery [OK]
JBuilder , project 가
(skeletal code) . object gallery
project가 ,
JBuilder JBuilder
.
>
CORBA Enterprise project

4.4 Using wizards to get a quick start

JBuilder .
- object gallery [File|New]
- Project pane context menu
project pane node , Class, Interface,
Package, File, Directory, Folder, Directory View
[New] . node .

4.5 Using code shortcuts

JBuilder . CodeInsight code completion,
parameter lists, member lists, expression evaluation, code element location discovery
. ErrorInsight
. Code Template
. Sync Edit

template

4.5.1 CodeInsight

CodeInsight code completion, parameter lists, JSP tool tip

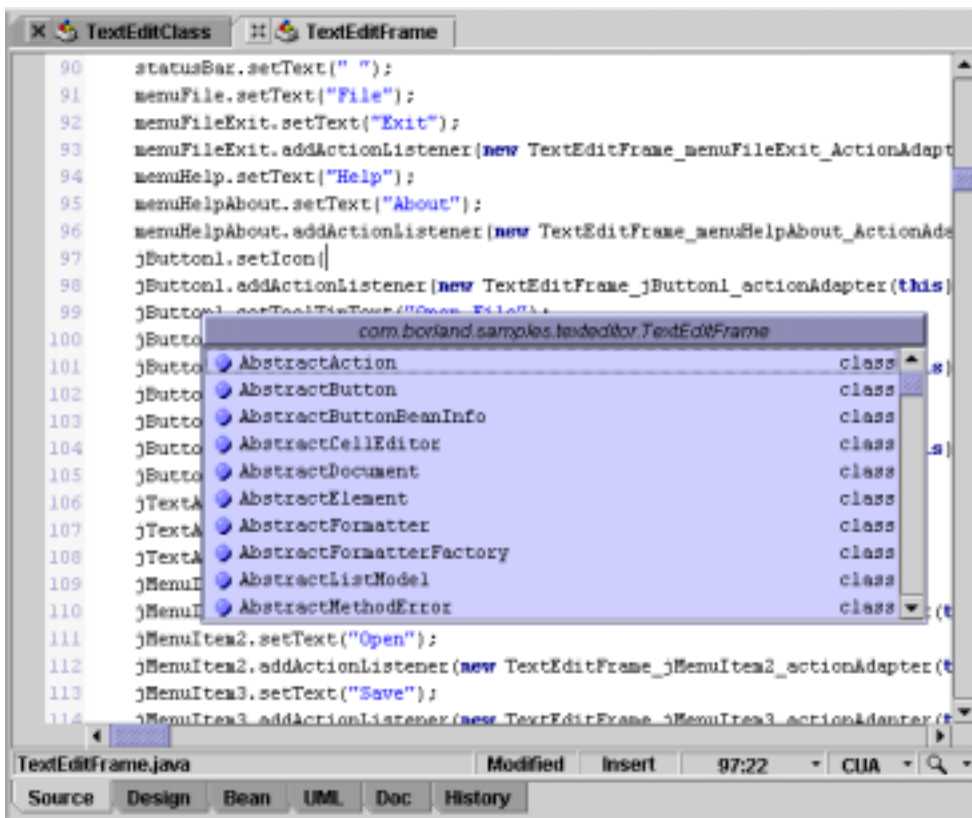
JAVA

JBuilder's CodeInsight editor

context-sensitive pop-up

- MemberInsight: context data members and method
 - ClassInsight: class classes
 - ParameterInsight: method가 parameter 가
 - Find Definition: editor variable, method, or class
- JBuilder Developer and Enterprise
- Find Overridden Method: super class overridden method
- JBuilder Developer and Enterprise
- Tool tip expression evaluation: debugger
- JBuilder Developer and Enterprise
- ExpressionInsight: debugger
- JBuilder Developer and Enterprise

JBuilder



>
 project CodeInsight class (import)

CodeInsight tool Enter
 . CodeInsight 가 .

Pop-up 창	단축키	의미
MemberInsight	Ctrl+H	활성영역의 method member 제공
ParameterInsight	Ctrl+Shift+H	method parameter 제공
Find Definition	Ctrl+Enter	심볼의 정의를 추적
ClassInsight	Ctrl+Alt+Space Ctrl+Alt+H	쓰여진 파일에 class 이름 삽입 JBuilder Enterprise 전에는 사입스타일옵션을 제공
Code templates	Ctrl+J	code template 제공

JBuilder . keymap
 Help keymap Editor . Keymap
 Editor [Tools|Editor Options] , 가
 keymap , Editor [Customize] . JBuilder Developer
 and Enterprise Keystroke .

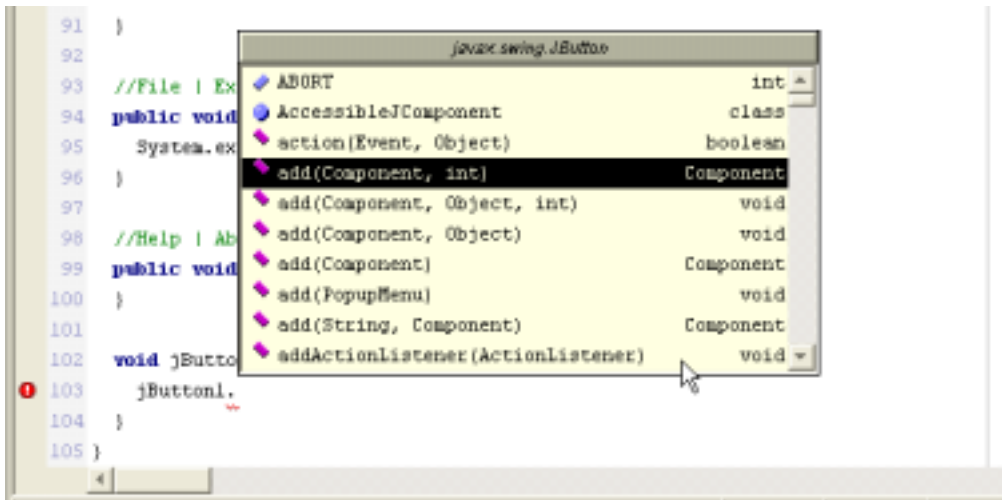
Tip>
 CodeInsight 가 "{ }", import .
 , CodeInsight가 Enter, Space bar,
 "[, =, \ " .

- MemberInsight

MemberInsight CodeInsight (prefix)가
 method . pop-up .(dot)
 [Ctrl+H] , [Ctrl+Space]
 method, property, event class
 (assignment statement)
 . CodeInsight 가 .
 , CodeInsight ,
 member . member project import .

Any deprecated methods are highlighted using strike-out

JAVA (accessibility rule)



- ClassInsight

ClassInsight

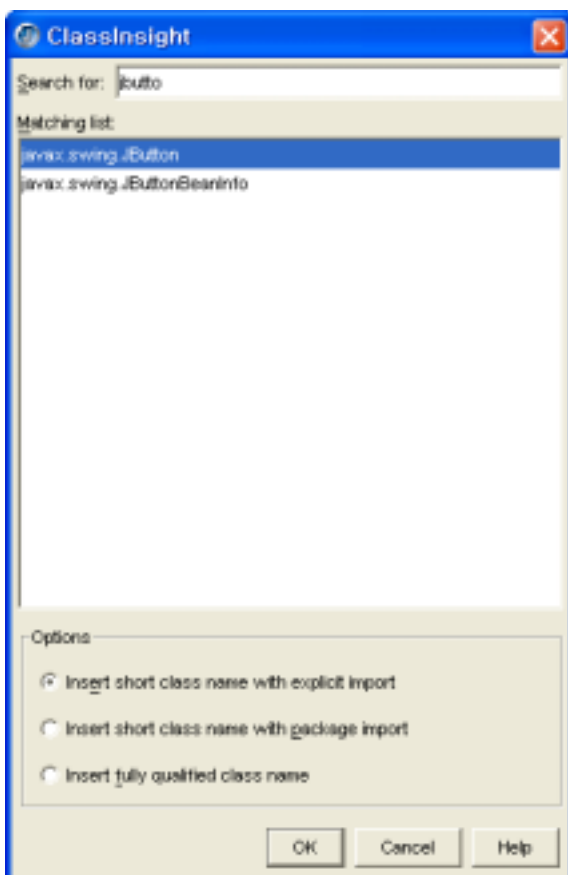
class

Editor

ClassInsight

[Ctrl+Alt+Space]

[Ctrl+Alt+H]



[Search] [Browse] tab [Search] [Search]
 가 [Search] [Browse]
 search class browser . [Search] 가
 class class JBuilder (dynamically)
 class class , 가 가
 package class [Enter]
 Ctrl+Enter 가 ,
 (library) class 가
 project 가 ClassInsight class 가 ,
 import import 가 .
 >
 project 가 , ClassInsight가 가
 project project pane [Refresh]
 . [Project|Make Project] [Project|Rebuild Project]

ClassInsight class import
 가 . java.awt package
 BorderLayout .

1. Insert Short Class Name With Explicit Import

package class import 가
 class class "BorderLayout" , Import "import
 java.awt.BorderLayout" .

2. Insert Short Class Name With Package Import

package import 가 class class
 "BorderLayout" , Import "import java.awt.*" . class

3. Insert Fully Qualified Class Name

Import class (package + class)
 class "java.awt.BorderLayout" , Import .

- ParameterInsight

가 method call , method
 method
 [Ctrl+Shift+Space], [Ctrl+Shift+H], ("(" .
 (Overload) , 가 method
 가 가 , method call
 , 가 .

```

78  jLabel1.setOpaque(false);
79  jLabel1.se
80  jButton4.s
81  jButton4.s
82  jButton4.s
83  jToolBar.e
84  jToolBar.e
85  jToolBar.e
86  jMenuFile.
87  jMenuHelp.
88  jMenuHelp.add(
89  jMenuBar1.add(jMenuFile);
90  jMenuBar1.add(jMenuHelp);
91  this.setJMenuBar(jMenuBar1);
92  contentPane.add(jToolBar, BorderLayout.NORTH);
93  contentPane.add(statusBar, BorderLayout.SOUTH);
94  contentPane.add(jPanell, BorderLayout.CENTER);
95  jPanell.add(jButton4, new GridBagConstraints(0, 0, 1, 1, 0.0, 0.0

```

javax.swing.JMenu	
Action a	
Component c, int index	
Component comp, Object constraints, int index	
Component comp, Object constraints	
Component c	
JMenuItem menuItem	
PopupMenu popup	
String name, Component comp	
String a	

_actionAdapter(this);

I

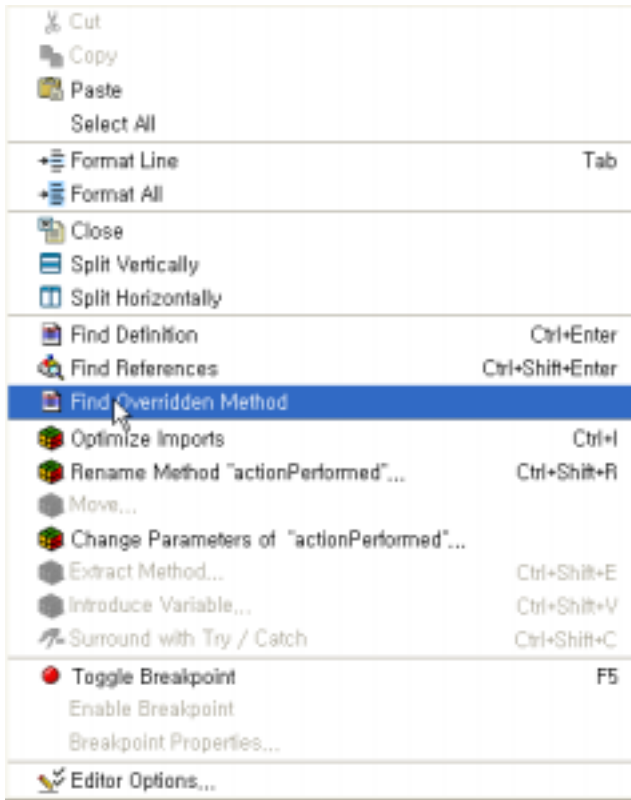
- Find Definition(Drill Down)

Find Definition editor

, Variable, method, class
가 stub code

keybinding keystroke
Mapping]

[Ctrl+Enter]
[Help|Keyboard



- Find Overridden Method

Find Overridden Method

super class , overridden method . Overridden
 superclass method superclass (chain) . Find
 Overridden Method structure pane editor context menu
 method [Find
 Overridden Method]

- Tool tip expression evaluation

가 editor
 tool tip pop-up panel

- ExpressionInsight

ExpressionInsight
 . ExpressionInsight tree structure
 pop-up . ExpressionInsight

1. [Ctrl] editor . ExpressionInsight
 (meaningful expression)

2. , Ctrl

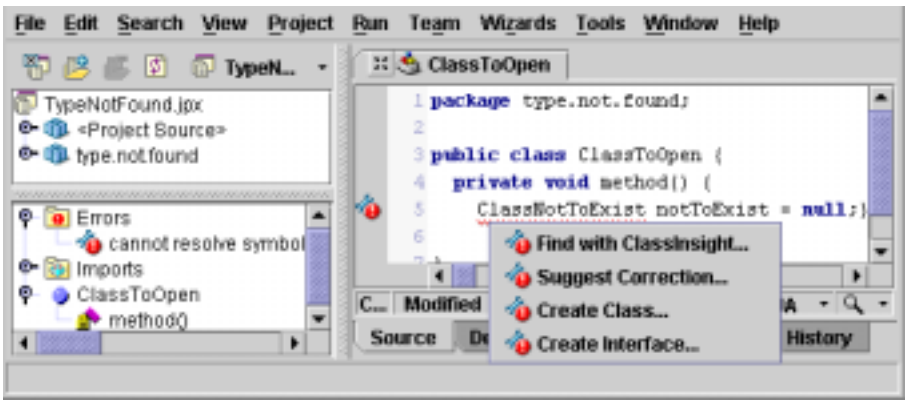
- Configuring CodeInsight

CodeInsight source pane , [Editor
 Option] [CodeInsight] , [Tools|Editor
 Options|CodeInsight] . JBuilder code template .
 가 template [Tools|Editor Options|Tempates] .

4.5.2 ErrorInsight

ErrorInsight code error .
 editor code error structure pane, message pane ,
 editor (squiggly) . ErrorInsight () 가
 ErrorInsight 가 , editor structure pane
 code error . ErrorInsight 가 Code error
 editor structure pane code error 가 editor
 ErrorInsight , "Press Alt+Enter for ErrorInsight" tooltip
 . code error ErrorInsight

- structure pane error
 - editor [Alt+Enter]
 - error editor ErrorInsight
 - [Edit|ErrorInsight]
- error
 [Type Not Found] code error 가



ErrorInsight menu

Code error	Menu options	의미
Class name or file name mismatch	Rename class	파일이름 일치를 위한 파일이름 변경
	Rename file	클래스이름 일치를 위한 클래스이름 변경
Class not found in import	Remove import	소스코드로부터 import 삭제
	Create class	Class 마법사 열음
	Create interface	Interface 마법사 열음
Class should be declared abstract	Make Class abstract	소스코드에서 추상클래스 선언
	Implement methods	소스코드에 method 추가
Constoructore not found	Create constructor	소스코드안에 생성자 생성
	Override constructor	소스코드안에 오버라이드 생성자
Exception not caught	surround with try/catch	try/catch 문을 예외발생한 곳을 에워쌌
	Add throw clause	소스코드안에 throw ! 추가
Method nor found	Create method	Create method 대화상자 열기
	Suggest correction	method 선택 대화상자 열기
Package or directory name mismatch	Change package declaration	소스코드와 일치하는 package 선언 변경
	Move file	올바른 폴더로 파일 이동
Pakage not found in import	Remove import	소스코드로부터 import 문 삭제
	Create package	package 생성 마법사 열기
Type mismatch	Add type cast	올바른 형을 위한 cast !산자 추가
Typw not found	Find with ClassInsight	ClassInsight 대화상자 열기
	Suggest correction	유사한 헛이름 목록을 가진 Suggest corction 대화 상자 열기
	Create class	Class 마법사 열기
	Create interface	Interface 가법사 열기
Variable not found	Create field	새로운 항목 대화상자 열기
	Create variable	새로운 변수 대화상자 열기
	Suggest correction	유사한 변수이름 목록을 가진 Suggest Variable 대화 상자 열기

[OK]

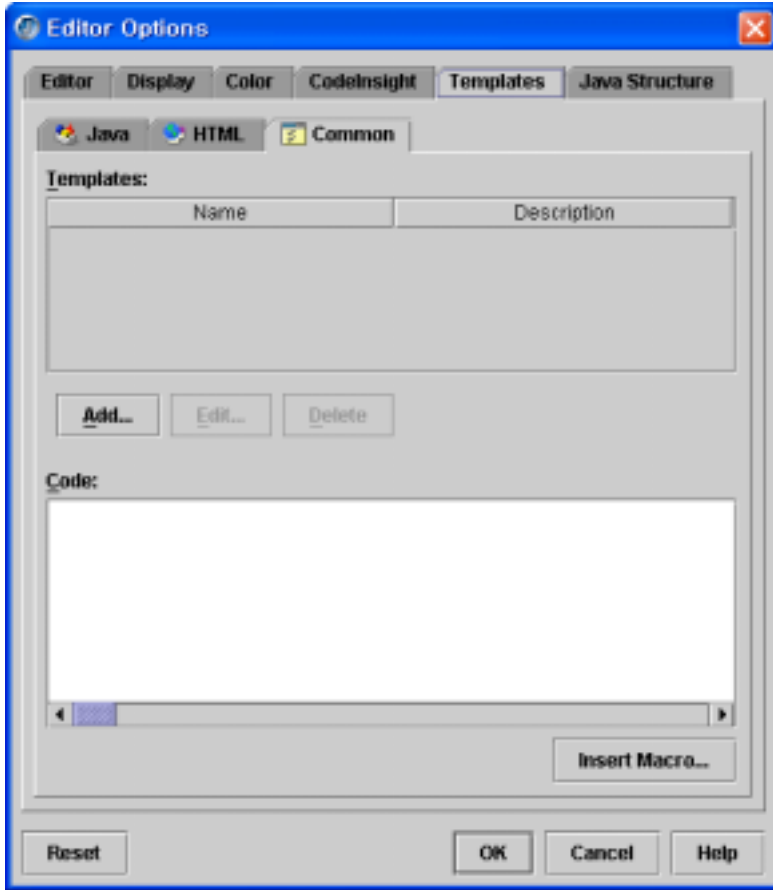
4.5.3 Code Templates

Code tmplates

editor

Code templates Java HTML- Java templates import

Code templates 가 [Tools|Editor Options|Templates|Common]



common templates templates가
 common templates
 import macro templates 가
 Sync Edit ≙ code templates (identifire)
 가 Sync Edit
 가 template , code template
 template code templates
 가 , code templates , Sync Edit
 code templates 가 , code templates ,
 Sync Edit code

- Adding Code Templates

code templates code template list
 가 code templates 가 template
 가 Sync Edit 가

code templates

code template 가

1. "classp" code template 가

2. [Ctrl+J] 가
JBUILDER code templates Java Editor
templates import 가 code template



3. code template , template ≡ [Enter]
template [Tools|Editor Options|Templates]

code template

1. 가 code templates
[Ctrl+J]

2. [Enter] editor가
template Java Editor templates import
가

```

99 public void JMenuFileExit_actionPerformed(ActionEvent e) {
100     System.exit(0);
101 }
102
103 addaction      add ActionListener
104 addadjust     add AdjustmentListener
105 addanc        add AncestorListener
106 addawt        add AWTEventListener
107 addbeann      add BeanContextMembershipListener
108 addbeans      add BeanContextServicesListener
109 addcaret      add CaretListener
110 addcell       add CellEditorListener
111
Point loc = getLocation();

```

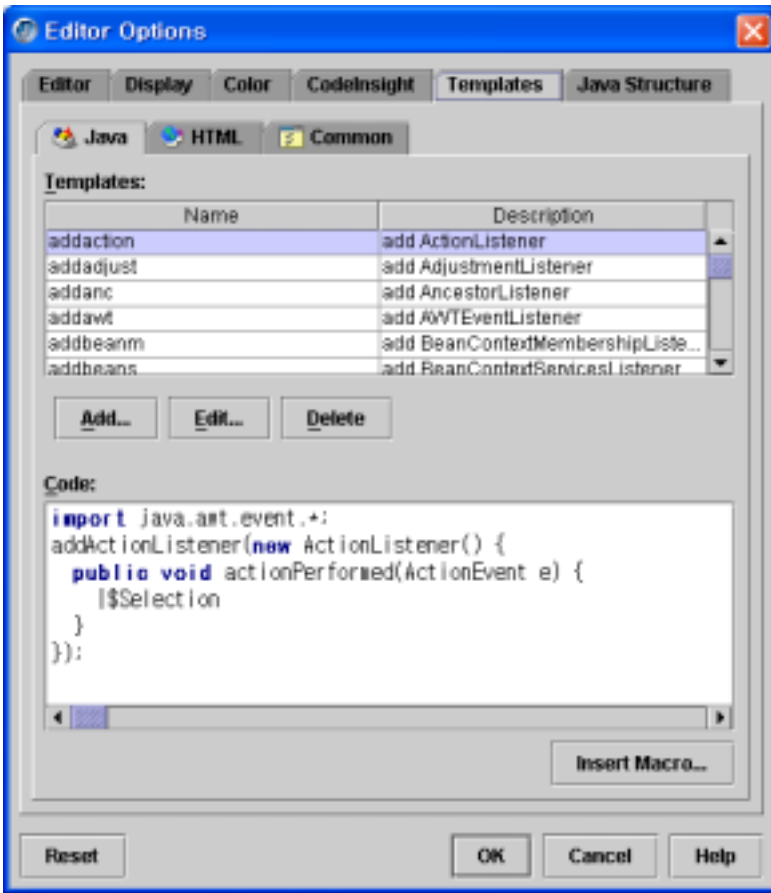
code template 가 (surround)

1. code template 가 , 가
2. [Ctrl+J] . code template
3. code template code template . code template (indent)가

> 가 template 가
 CodeInsight . JBuilder가 code template project

- Editing code templates

JBuilder code templates , 가,
 template . Java HTML code template (macro) 가
 . code template 가 editor
 , [Tools|Options|Templates]



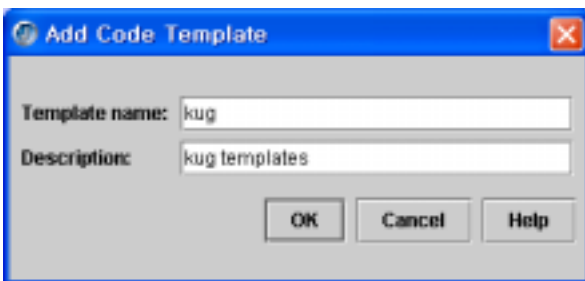
code template 가

1. [Tools|Options|Template]

2. Template [Add]
template code template 가

Java, HTML, Common
common templates

3. code template [OK]



4. [Code] template 가

5. import template 가 [Editor Option]

[OK]

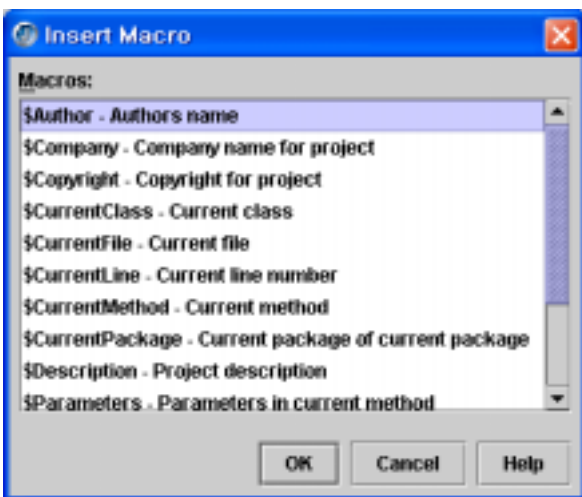
code template

1. [Tools|Options|Template]
2. code template code templates
3. template [Templates] [Edit]
4. code template [OK]
5. [Code] 가
6. import template 가 [Editor Option]
[OK]

가 template , JBuilder (preference)
(Format) {}

template macro 가

1. [Tools|Options|Template]
2. Java HTML Template template
3. macro [Code]
4. Template [Insert Macro] [Insert Macro]
가



5. macro [OK] . macro 가 code template

>
macro 가 code template (identifier
names) "\$CurrentClass" macro
"equals" code template "\$CurrentClass" macro
class

Tab code template

1. [Tools|Options|Template]
2. code template code templates
3. template code template template
4. [Code] 가 Tab bar("-")
[OK]


4.5.4 Sync Edit

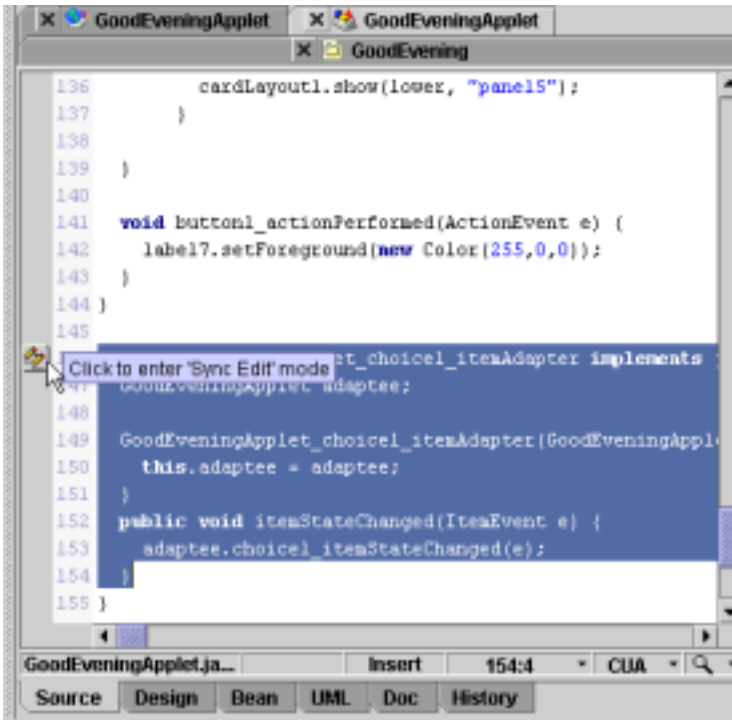
Sync Edit code template
code template [Ctrl+J], editor
[Edit|Sync Edit] Sync Edit

- Editing with Sync Edit

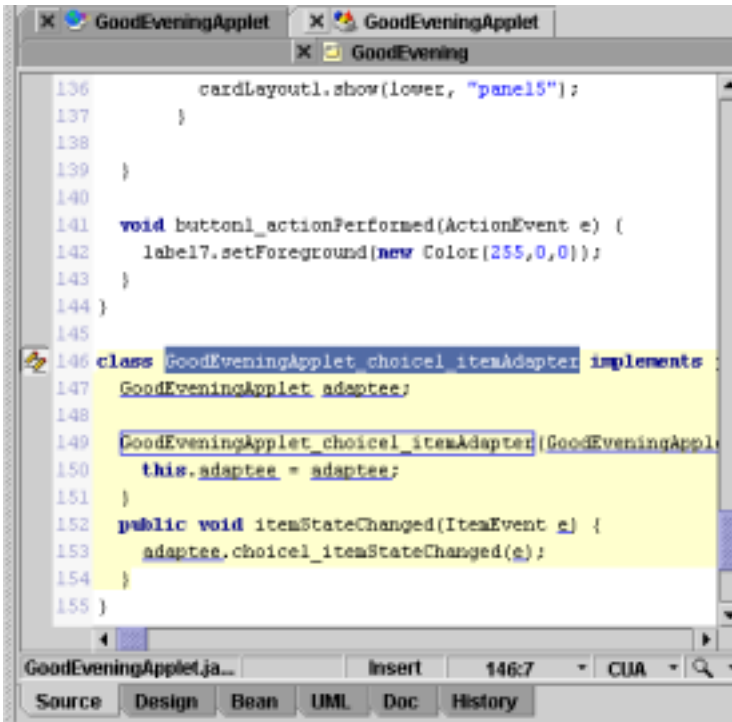
Sync Edit
[Edit|Sync Edit] editor Sync Edit
Sync Edit
Editor, [Tools|Options|Template]
code template

1. code template editor code block

Sync Edit()
가
template code editing 가



2. Sync Edit 가 content pane [Sync Edit]
3. 가 가 가 가 가 Sync Edit , Tab
4. Sync Edit 가 Sync Edit [Esc], Sync Edit



- Customizing Sync Edit code elements

Sync Edit (identifiability)
 code identifiers, Sync Edit background, and Sync Edit highlight
 Sync Edit editor Sync Edit

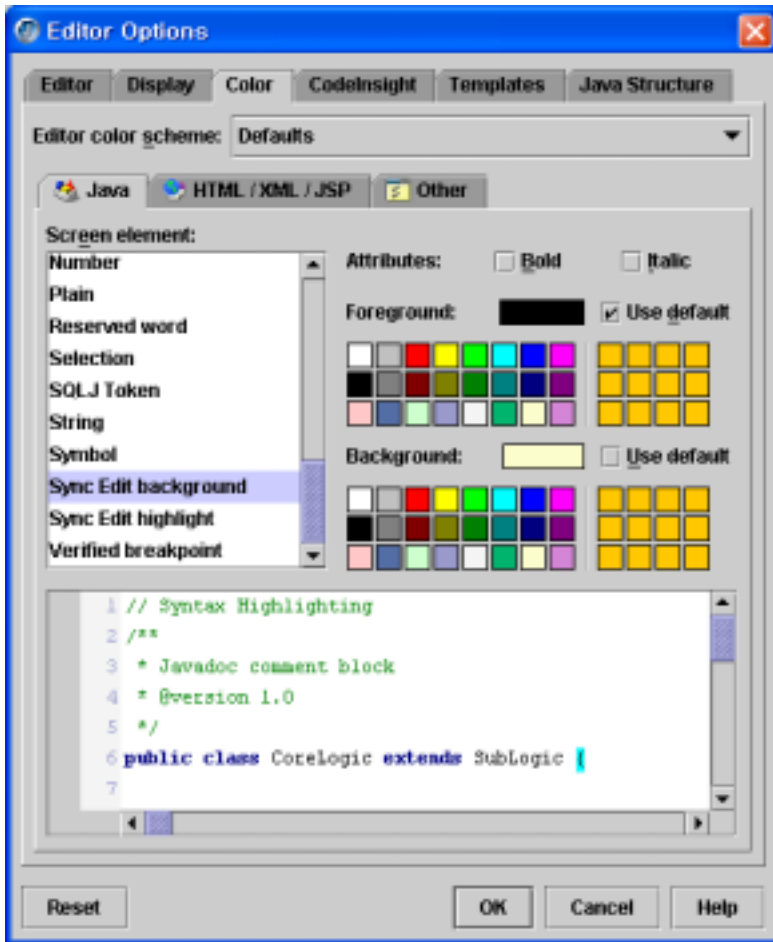
Sync Edit

1. [Tools|Editor Options|Color]
2. Sync Edit Sync Edit

Identifier, Sync Edit background, or Sync Edit highlight

3.
 - Attributes : "Bold" "Italic"
 - Foreground : , [Use Default]
 - Background : , [Use Default]

가



4.

[OK]

, [Editor Options]