

# KETTLE 4.X USER MANUAL

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## DOCUMENT REVISION

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<b>Primary Author(s)</b>	<b>Description of Version</b>	<b>Date Completed</b>
Randall Rader	Initial online version.	04-06-1999
Michael Rathjen	Initial public release.	06-30-2000
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## PREFACE

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This manual is an application user's guide only, and does not give instruction on template writing techniques.

There are several other documents complementary to this manual that cover topics associated with Tea and Tea-related tools. These additional documents are available at <http://opensource.go.com>.

For a list of the latest changes in Kettle, see Kettle's readme.txt file.

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# 1. AN INTRODUCTION TO KETTLE

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Kettle is an Integrated Development Environment (IDE) used to create and manage templates incorporating the Tea language (Tea templates). Tea templates are most commonly used for creating dynamic web pages in the TeaServlet.

## 1.1 Feature Summary

- Includes an integrated Tea compiler
- Performs syntax highlighting of Tea keywords
- Allows Tea templates to be grouped into projects
- Allows multiple Tea templates to be open at the same time
- Reports compilation errors in a useful manner

## 1.2 New in Kettle 4.0

Although versions of Kettle prior to 4.0 are Java-based, they were designed to work only on the Windows platform. Kettle 4.0 was rewritten to be 100% Java-compliant and to function on several platforms. Additionally, Kettle 4.0 is easier to use and more powerful due to the following new features:

- Additional find/replace functionality
- Additional customizable preferences
- Enhanced syntax highlighting
- Improved function browser
- Improved menus

## 2. INSTALLING AND STARTING KETTLE

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### 2.1 Requirements

Kettle requires a Java2-complaint system, using Java 1.3 or newer. On Win32 systems, Kettle requires 96mb of memory. On Linux systems, Java 1.3.0 is recommended, due to the display bugs in Java 1.3.1. These bugs are identified on the following web pages:

<http://developer.java.sun.com/developer/bugParade/bugs/4393527.html>

<http://developer.java.sun.com/developer/bugParade/bugs/4487993.html>

### 2.2 Installation

Installation of Kettle is simple. Simply unzip Kettle into a folder of your choice. You can download the latest version of Kettle from <http://opensource.go.com/kettle>. Ensure that the Java Runtime Environment (JRE) is properly installed for the platform being used.

### 2.3 Starting Kettle

The Kettle distribution includes a batch file and shell script. Windows users can start Kettle with **kettle.bat**. Linux users can use the shell script **kettle.sh**. Assuming java.exe is in the system path, Kettle can also be started from the command line with the following command:

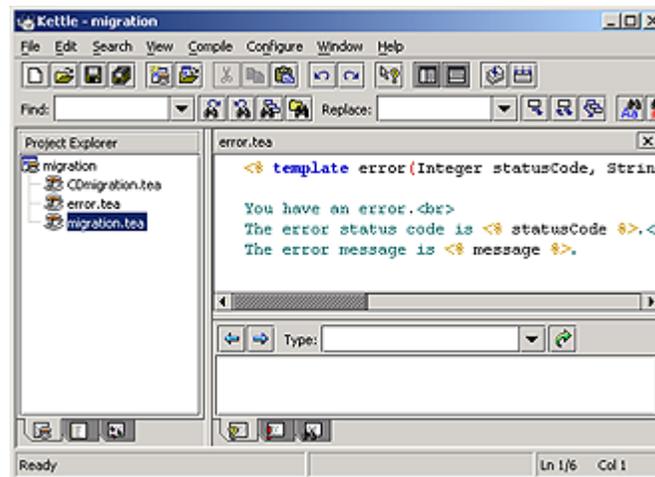
```
java -cp kettle.jar com.go.kettle.kettle
```

## 3. THE KETTLE INTERFACE

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### 3.1 Kettle Window Panes

The Kettle interface is composed of three main windows, the navigation window, the output window, and the editor window. Kettle uses a three-window work area to offer a variety of views and browsing options. Above these windows are the menu bar and the toolbar. Below the windows is a status bar.

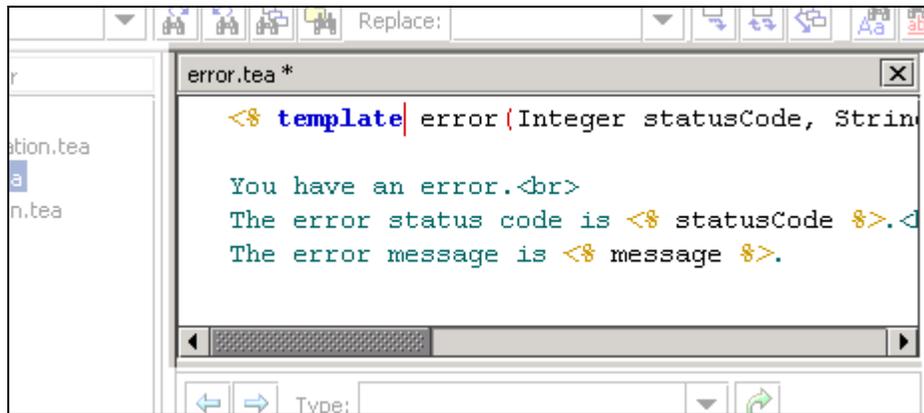


The Kettle GUI

#### 3.1.1 The Editor Window

Kettle's editor window, the main window on the right side of the application, displays open templates as editable source code.

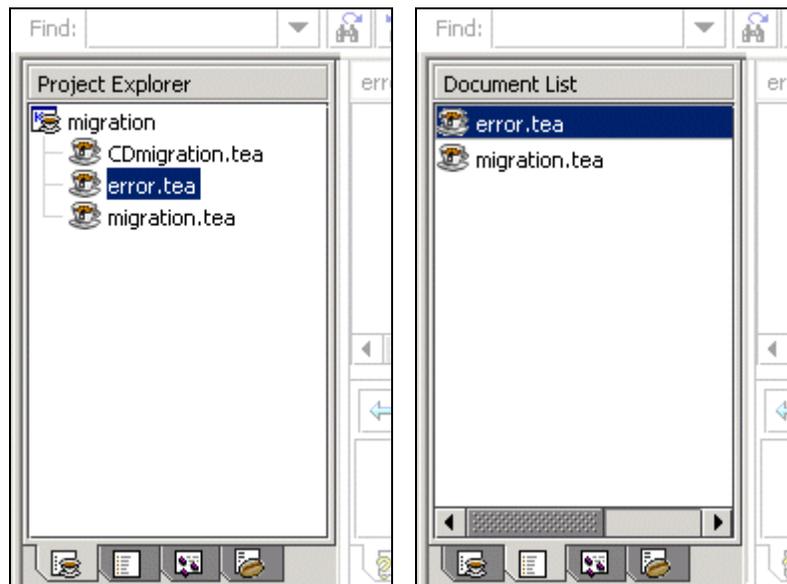
The editor window is essentially the text editor where code is written and edited. This is also where search and replace functions are performed on open files. The text styles in this windowpane reflect the user's text highlighting preferences (see [4.2 Kettle Editor Preferences](#)).



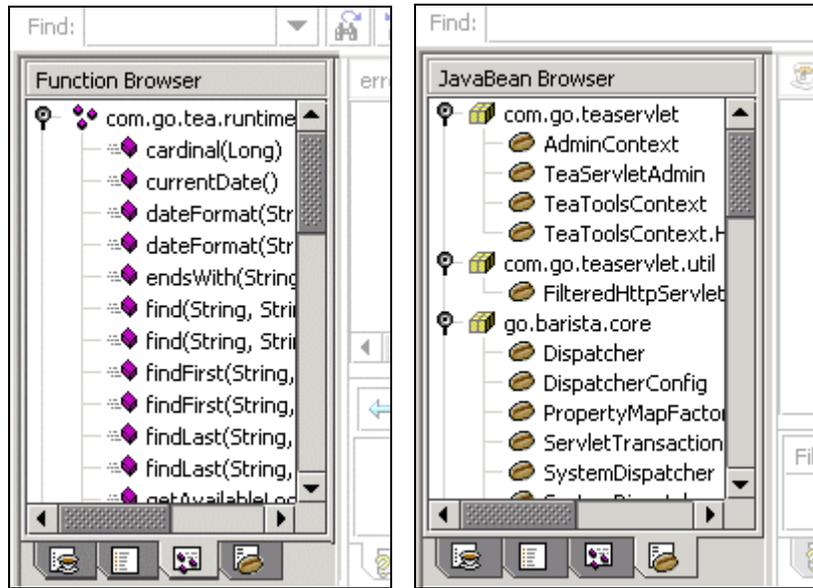
**Kettle Editor Window**

### 3.1.2 The Navigation Window

Kettle's navigation window contains the Project Explorer, Document List, or Function Browser. You can toggle between these modes by clicking on one of the three tabs near the bottom of the windowpane.



**Kettle Navigation Window – Project Explorer and Document List**



**Kettle Navigation Window – Function Browser and JavaBean Browser**

The **Project Explorer** (the default view) displays the project's name and a list of associated Tea templates. The templates shown are those that exist in the directory containing the Kettle project file or a subdirectory. Double-click a template in the list to open it in the editor window.

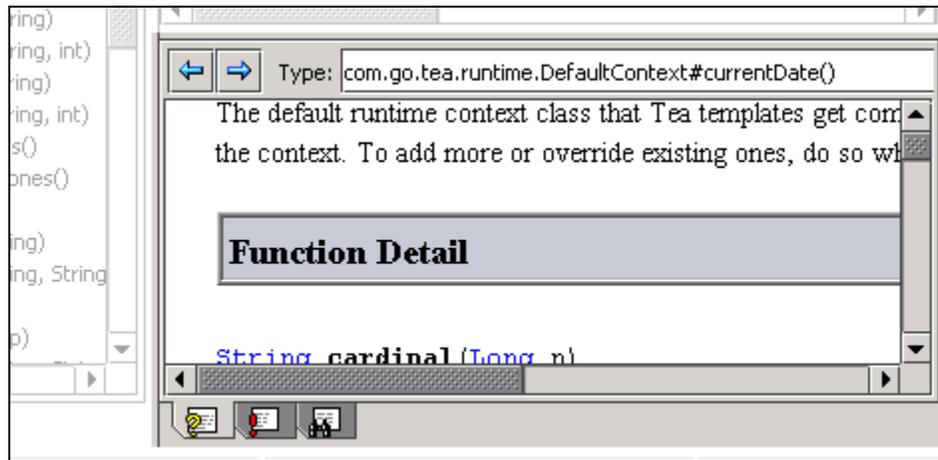
The **Document List** displays a list of the currently open Tea templates. Click on a template to display that template in the editor window.

The **Function Browser** displays the list of built-in functions currently available for a project. Click on a function to view its details in the output window. Click on the handle next to the Context Class title to expand or collapse its list of functions.

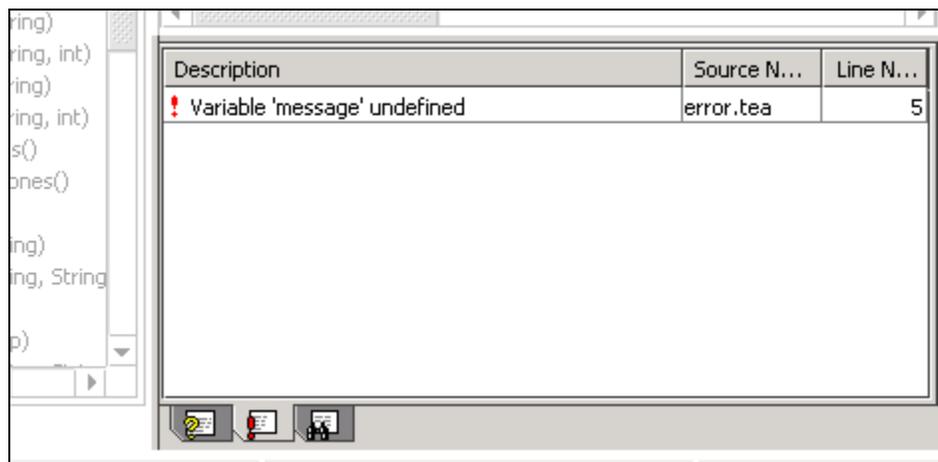
The **JavaBean Browser** displays all JavaBeans available within your Project Classpath. Click on a JavaBean to view its description. Click on the handles next to the package titles to expand or collapse the lists of JavaBeans.

### 3.1.3 The Output Window

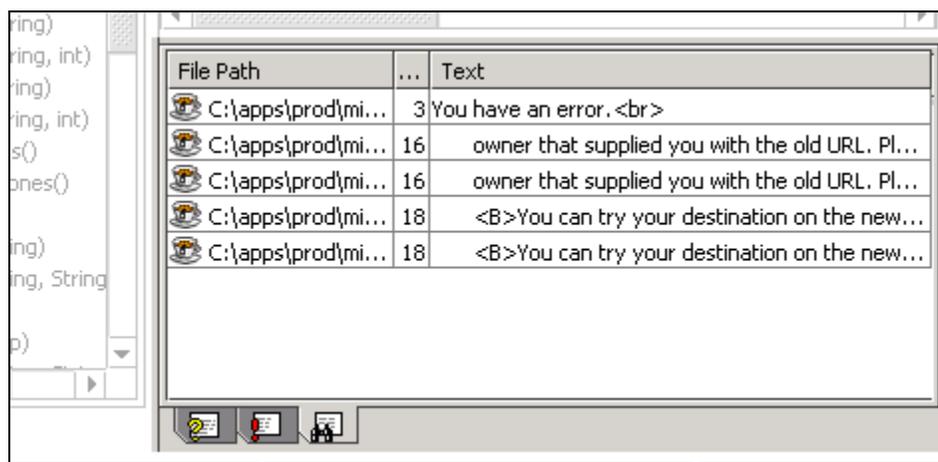
Kettle's output window contains the Type Browser, Compilation Errors, and any Search Results performed over multiple open documents or files. You can toggle between these modes by clicking on one of the three tabs near the bottom of the windowpane.



**Kettle Output Window – Type Browser**



**Kettle Output Window – Compilation Error List**



**Kettle Output Window – Search Results**

The **Type Browser** (the default view) displays function descriptions or return type information. The Type Browser has forward and back buttons for navigating forwards and backwards through the content. Next to these buttons is a history bar for browsing through previously requested type information.

The **Compilation Error List** displays compilation errors. This view is automatically displayed after any compilation. Templates can be compiled individually or all at once, so error listings include template names as well as error descriptions and line numbers where errors occur. Single-click an entry in the Compilation Error List to display the error in the editor window. Double-click an entry in the Compilation Error List to jump to that error and place the cursor focus in the editor window.

The **Search Results** view displays a list of results from searches made using the **Find in Open Documents** and **Find in Files** tools. The results are listed including the filename, file path, line number, and surrounding text. To jump to the template where the search item was found, simply single-click on a result list entry. Double-click on the entry to jump to the search item and place the cursor focus there. If the list item corresponds to a file that is not open, the file is opened and the editor window displays the template. (The **Find Next** and **Find Previous** tools simply jump to the single result in the editor window.)

## 3.2 Kettle Menu Bar

The Kettle menu bar, similar to other window-based applications, contains organized menus of Kettle commands. Although commonly used commands can be activated from the toolbar, the menu bar is comprehensive.



### 3.2.1 File Menu

The file menu is used to open, close, save, or start templates and project files.

Command	Description
<b>New</b>	Creates a new Tea template.
<b>Open</b>	Opens an existing Tea template.
<b>Close</b>	Closes the current Tea template. Kettle prompts the user regarding unsaved templates.
<b>Close All</b>	Closes all Tea templates. Kettle prompts the user regarding unsaved templates.
<b>Save</b>	Saves the current Tea template.
<b>Save As</b>	Opens a dialog box that can save the current Tea template with a different filename or in a different location.
<b>Save All</b>	Saves all currently opened Tea templates.
<b>New Project</b>	Starts a new project.

Command	Description
<b>Open Project</b>	Opens an existing project.
<b>Close Project</b>	Closes the current project. Kettle prompts the user regarding an unsaved project.
<b>Save Project</b>	Saves the current project.
<b>(Recent Project List)</b>	Recently opened projects appear in the File Menu for easy access.
<b>Exit</b>	Exits Kettle, closing any open files first.

**Table 1 – Kettle File Menu**

### 3.2.2 Edit Menu

The edit menu provides typical text-editing tools such as cut and paste. See [6.2.1 Using Basic Editing Tools](#) for detailed information.

### 3.2.3 Search Menu

The search menu provides typical tools for finding and replacing text, or jumping to specific locations in the template.

Command	Description
<b>(Find/Replace Tools)</b>	See <a href="#">6.2.2 Using Find/Replace</a> for detailed information.
<b>Go To...</b>	Jump to a specific line in a Tea template.
<b>Match Case</b>	Modifies the Find/Replace behavior to distinguish between uppercase and lowercase letters.
<b>Whole Word</b>	Modifies the Find/Replace behavior to distinguish between matching occurrences that are whole words only and not part of a larger word string.
<b>Match Bracket</b>	Jump to the opposite bracket "[ ]", brace "{ }", or parenthesis "()". This applies to Tea code regions only.

**Table 2 – Kettle Search Menu**

### 3.2.4 View Menu

The view menu controls which toolbars are visible and which views are active in the navigation and output windows.

Command	Description
<b>Status Bar</b>	Toggles the status bar on and off.
<b>Toolbars</b>	Toggles the standard or search bars on and off.
<b>Project Explorer</b>	Makes the Project Explorer active in the navigation window.
<b>Document List</b>	Makes the Document List active in the navigation window.

Command	Description
<b>Function Browser</b>	Makes the Function Browser active in the navigation window.
<b>JavaBean Browser</b>	Makes the JavaBean Browser active in the navigation window.
<b>Type Browser</b>	Makes the Type Browser active in the navigation window.
<b>Type Browser Navigation</b>	Navigates forward and backward through types in the Type Browser.
<b>Compilation Error List</b>	Makes the Compilation Error List active in the navigation window.
<b>Search Results</b>	Makes the Search Results active in the navigation window.
<b>Navigation Pane</b>	Toggles the navigation window on and off.
<b>Output Pane</b>	Toggles the output window on and off.
<b>Show Template in Browser</b>	Displays the template rendered in the selected browser.
<b>Refresh</b>	Reloads the classes and refreshes the views.

**Table 3 – Kettle View Menu**

### 3.2.5 Compile Menu

The compile menu is used for compiling templates. See [6.3 Compiling Templates](#).

### 3.2.6 Configure Menu

The configure menu is used to configure a Kettle project or to customize Kettle's environmental settings. See [4 Setting Kettle](#).

### 3.2.7 Window Menu

The window menu is used to either close or navigate through the currently open templates.

Command	Description
<b>Next Window</b>	Jump to the next window.
<b>Previous Window</b>	Jump to the previous window.
<b>Close</b>	Close the current template.
<b>Close All</b>	Close all open templates.
<b>(Window List)</b>	Lists the currently opened templates for easy access.
<b>Windows...</b>	Opens a dialog box with a list of currently open templates for easy access.

**Table 4 – Kettle Window Menu**

### 3.2.8 Help Menu

The Help menu has links to websites with information covering topics such as Tea and Kettle. The location of your Internet browser must be correctly configured in Kettle (see [4.1 Kettle Environment Preferences](#)).

## 3.3 Kettle Toolbars

Kettle has a standard toolbar and a search toolbar just below the menu bar. To recover more space for Kettle's working windowpanes, either or both toolbars can be turned off in the **View** menu (see [3.2.4 View Menu](#)). All the functions on the toolbars are accessible in the menu bar.



### 3.3.1 Standard Toolbar

Tool	Button	Description
New Template		Starts a new template.
Open Template		Opens an existing template.
Save Template		Saves the current template.
Save All		Saves all open templates.
New Project		Starts a new project.
Open Project		Opens an existing project.
Cut		Cuts selected item into the clipboard.
Copy		Copies selected item into the clipboard.
Paste		Pastes clipboard content.
Undo		Undo the last action.
Redo		Redo the previous "Undone" action.
Display Type Info		Displays a description of the current variable or function type in the Type Browser.
Show/Hide Navigation Pane		Toggles the navigation pane on and off. Hiding the navigation pane can recover space for other windows.
Show/Hide Output Pane		Toggles the output pane on and off. Hiding the output pane can recover space for other windows.

Tool	Button	Description
<b>Show Template in Browser</b>		Renders the current template in the selected browser. This gives authors a preview without having to compile and reload templates.
<b>Compile Template</b>		Compiles the current template.
<b>Compile All</b>		Compiles all templates in the current project.
<b>Reload TeaServlet Templates</b>		Instructs the TeaServlet to reload its templates.

**Table 5 – Standard Toolbar**

### 3.3.2 Search Bar

The buttons in the search bar are explained in detail in [6.2.2 Using Find/Replace](#).

## 3.4 Status Bar

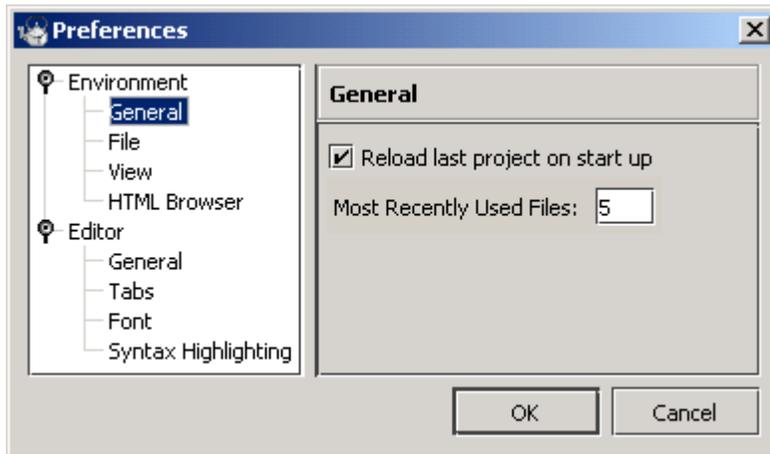
Kettle has a status bar at the bottom of the application used to display miscellaneous data such as the current cursor location and the results of a find/replace action. The status bar also displays brief yet helpful information when the mouse pointer is hovering over one of Kettle's buttons.



The status bar can be turned off in the **View** menu in order to recover more space for the other windows in Kettle (see [3.2.4 View Menu](#)).

## 4. SETTING KETTLE PREFERENCES

Kettle supports many custom environmental settings that users can change to more closely match their preferences. To edit these settings, select **Preferences** from the **Configure** menu. The following dialog box opens:



[Table 6](#) and [Table 7](#) in the following sections describe the preference settings and their meanings.

### 4.1 Kettle Environment Preferences

Type	Setting	Meaning
<b>General</b>	Reload Last Project on Startup	When started, Kettle automatically opens the last project it handled.
	Most Recently Used Files	When users open the file menu, this setting determines the number of recently used files that are listed for easy access.
<b>File</b>	Prompt for name when creating new template	When creating a new template, Kettle prompts you for the template name. The name is inserted into the template and is the default name for saving. If this option is disabled, Kettle uses generic template names.
	Open associated project when opening template	When a template is loaded and no projects are open, Kettle automatically opens the project associated with that template.
	Restore workplace state when opening project	When a project is opened, Kettle automatically restores the project's workplace state. All previously open templates are opened and the navigation window is restored with its previous content.
	Saves files on successful compile all	When Kettle successfully compiles all of the templates due to a "compile all" action, the templates are also all saved.

Type	Setting	Meaning
	Save project file on OK of Project Properties dialog	The project file automatically saves when a user makes changes to the project properties.
View	Kettle view preference	"Split vertically" provides the navigation window with more space. "Split horizontally" provides the output window with more space.
	Show Path Names in the Document List	Templates listed in the Document List show their path information relative to the project file.
HTML Browser	Path to HTML browser location	Identifies the path to your preferred HTML browser. Either type in the path and filename or identify the browser executable by using the Browse button. This is only used for the help commands in the help menu.

Table 6 – Kettle Environment Preferences

## 4.2 Kettle Editor Preferences

Type	Setting	Meaning
General	Enable automatic indentation	The text editor automatically provides indentation within a template, following the current tab behavior. (See tabs below.)
	Show property list when "." is typed	A list of available property types is displayed when property statements are being typed.
	Underline compilation errors	Compilation errors are underlined in the text editor.
	Automatically underline errors as you type	Syntax and type errors are underlined automatically as you type in the text editor.
	Show contextual error message tooltips	When hovering the mouse pointer over text with an error, a tooltip displays that error.
	Show contextual type info tooltips	When hovering the mouse pointer over a variable, a tooltip displays that variable's type.
	Automatically highlight matching brackets	When the cursor is present over one bracket, the matching bracket is also highlighted.
	Block cursor	This switch toggles between a vertical bar cursor and a block cursor.
Tabs	Keep tabs	Using the tab key in the text editor inserts a tabbed space.
	Insert spaces	Using the tab key in the text editor inserts spaces. The number of spaces is defined in the "Spaces per tab" setting.
	Spaces per tab	When the "Insert spaces" setting is used, "Spaces per tab" identifies how many spaces are inserted when the tab key is pressed.
Font	Font	This defines the font name and size for the text editor. A

Type	Setting	Meaning
		small sample of the currently defined font is displayed.
<b>Syntax Highlighting</b>	Item	<p>Syntax highlighting allows you to customize text appearance by boldening, italicizing, or adjusting the foreground and background colors.</p> <p>Different types of text, such as Tea code, HTML, or reserved words, are identified by Kettle and highlighted differently, according to your settings.</p> <p>To adjust the settings for an item, select it from the item list and adjust the Foreground, Background, Bold, and Italic settings.</p>
	Enable syntax highlighting	<p>This switch toggles syntax highlighting on and off.</p> <p>Turning off syntax highlighting may improve Kettle's performance when handling very large templates.</p>

**Table 7 – Kettle Editor Preferences**

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## 5. USING A KETTLE PROJECT FILE

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One of Kettle's strengths is the Kettle project file (.kproj). Project files are used by Kettle to group Tea templates in one logical collection. Project files also associate the templates with the files they rely upon, such as specific classpaths and context classes. This allows Kettle to compile all the templates in a project at once (see [6.3 Compiling Templates](#)).

Several of Kettle's features, such as the project explorer, document list, and function browser, rely upon the properties for the project classpath and the context classes.

To create a project file, select **New Project** from the **File** menu.

When you create a project in Kettle, the project properties should match the environment that the templates are used with. For example, the context classes configured in the Kettle project file should be the same context classes used by the TeaServlet. This ensures that any templates written for the project have access to the same functions that the TeaServlet does. Given identical context classes, a successful compile in Kettle helps to ensure a successful template in the TeaServlet.

In many cases, the default configured context class is adequate for a simple Tea template. However, if your Tea templates are using functions contained in custom context classes, then these context classes need to be configured in the Kettle project.

### 5.1 Configuring the Project File (with TeaServlet)

*If you are not using TeaServlet or you wish to manually customize your project's properties, see [5.2 Configuring the Project File Manually](#).*

Kettle can integrate with TeaServlet to help automate the setting and maintenance of your project's properties. With this option, Kettle automatically uses the same classpaths and context classes as the TeaServlet you direct it to. (TeaServlet integration requires TeaServlet 1.3.1 or newer.)

To configure TeaServlet integration, you need to configure the Project Properties to take their settings from the TeaServlet admin page. Select **Project Properties** from the **Configure** menu. Click on the **TeaServlet** tab, enable **Link Project to TeaServlet**, and enter the URL to the TeaServlet admin page. If the URL is correct, the **Classpath** and **Context Classes** tabs should contain read-only settings. For further instructions about accessing and understanding the TeaServlet administration pages, see the *TeaServlet User Manual*, available for download at: <http://opensource.go.com/teaservlet>.

If an **Incompatible TeaServlet** error message appears, double-check the URL in your browser and ensure that the TeaServlet version is 1.3.1 or newer. The TeaServlet version appears in the upper right-hand corner of the TeaServlet admin pages.

TeaServlet integration causes two additional tools to appear on the toolbar and in the menus. The following table describes these tools:

Tool	Button	Description
Show Template in Browser		This launches your configured browser and displays the HTML portion of the template.
Reload TeaServlet Templates		This causes the TeaServlet to recompile and reload any changed templates. This tool is identical to using the reload button on the TeaServlet's template administration page.

Table 8 – TeaServlet Tools

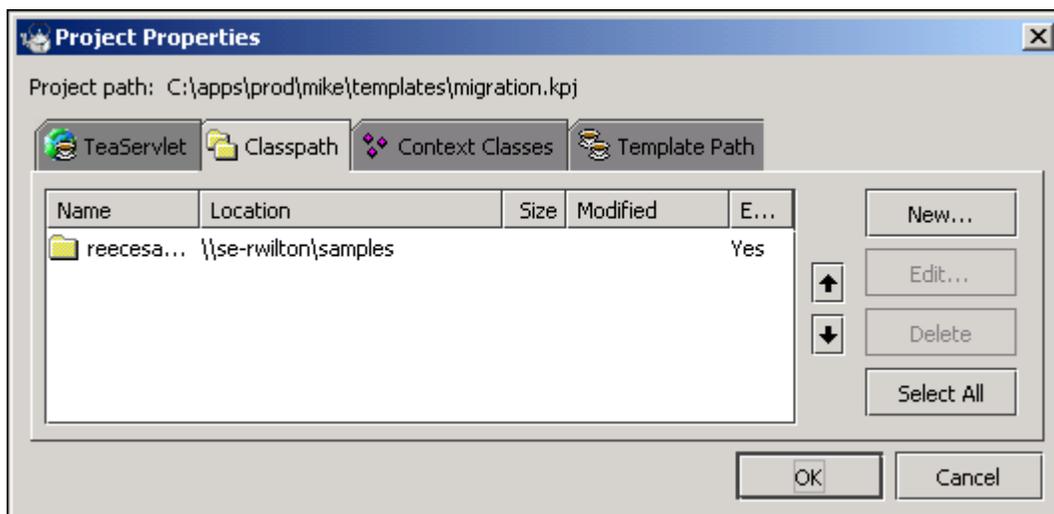
## 5.2 Configuring the Project File Manually

### 5.2.1 Configuring Classpaths

The project's classpaths are directories, JAR files, or ZIP files containing Java class files (JavaBeans) that are used by the project's templates. The classpath tells Kettle where to find the context classes and the classes that the context classes depend on. You need to configure classpaths before context classes, or an error may occur.

To add, edit, or delete entries in a project classpath, select **Project Properties** from the **Configure** menu, and then make your modifications in the **Classpath** tab of the **Project Properties** dialog. Use the **New** button to add a Classpath entry. Use the **Edit** button to modify the selected Classpath entry. Use the **Delete** button to delete all selected Classpath entries. The order of the classpaths configured here should match the order used in your Tea environment.

If a class is located in more than one classpath, Kettle uses the class from the first classpath it finds the class. You can change the order of the classpath entries by selecting an entry or multiple entries and clicking on the up and down buttons.



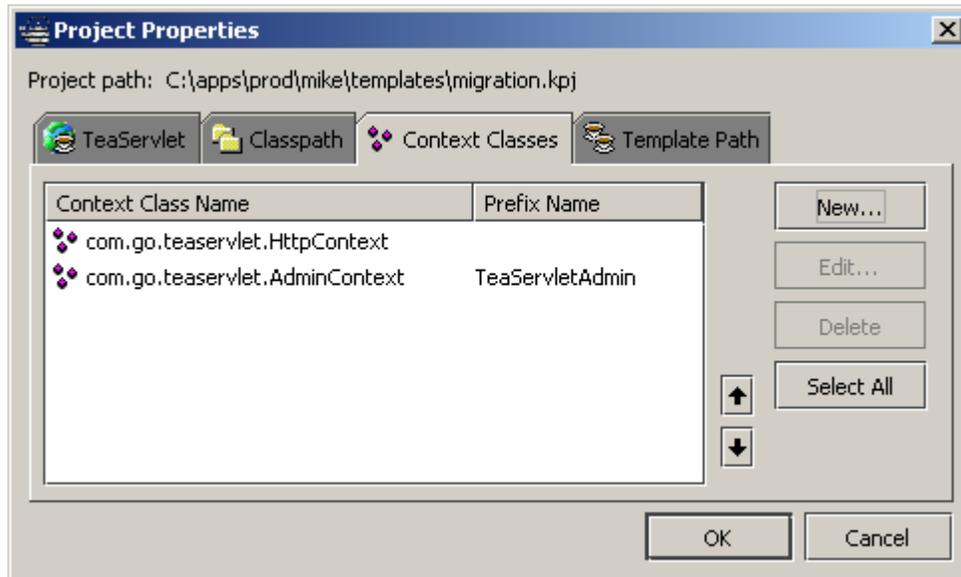
Kettle Project Properties - Classpath

## 5.2.2 Configuring Context Classes

A project's Context Classes define the functions available to its templates. Although Kettle ships with a default Runtime Context Class, other developers can construct enhanced versions. The default Context Class is **com.go.tea.runtime.UtilityContext**. This is included by default during installation of Kettle.

To add, edit, or delete Runtime Context Classes for this project, select **Properties** from the **Project** menu, and then make your modifications in the **Context Classes** tab of the **Project Properties** dialog. Use the **New** button to add a Context Class entry. Use the **Edit** button to modify the selected Context Class entry. Use the **Delete** button to delete all selected Context Class entries. Any Context Classes you add must be located in the project's Classpath or an error occurs. You must have at least one Context Class or an error occurs.

You can change the order of the entries in the project's Context Classes by selecting an entry or multiple entries and clicking on the up and down buttons. Changing the order of the Context Classes in the properties also changes the order that they display in the navigation window. The order does not affect the way Kettle compiles.

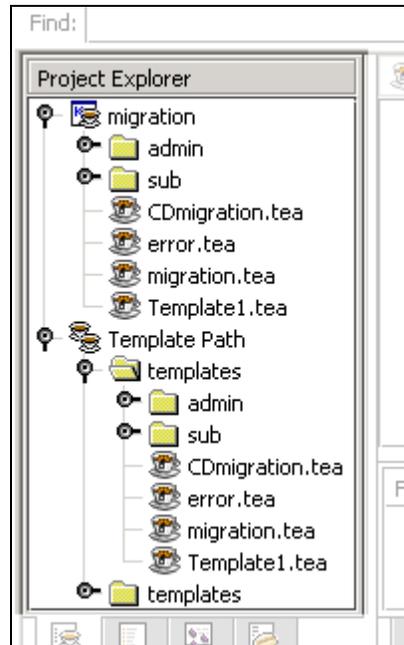


**Kettle Project Properties – Context Classes**

If the context classes are configured correctly, the Project Explorer should display the templates and subfolders based on the location of the Kettle project file (there may be nothing to display). Also, the Function Browser should display the list of available context classes and their functions.

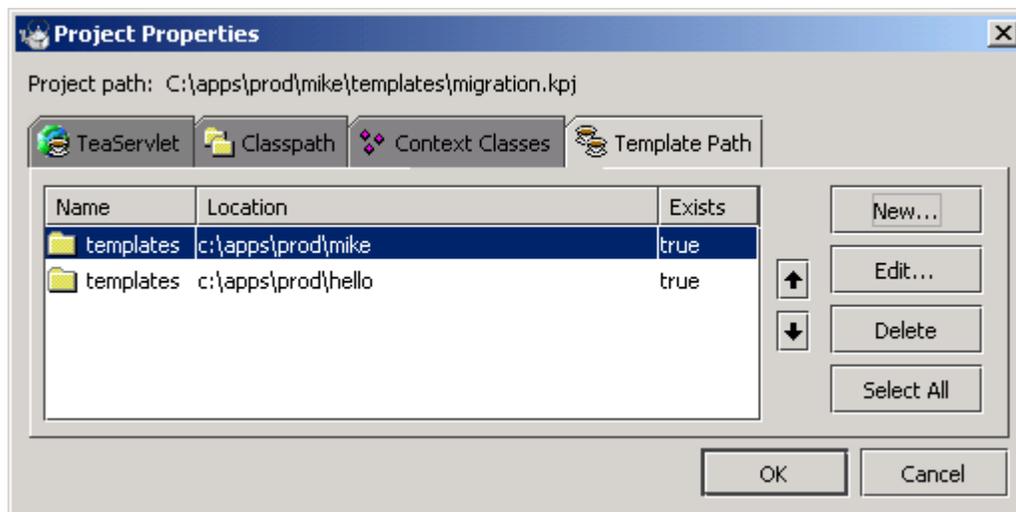
### 5.2.3 Configuring the Template Path

The project's template path contains a list of template folders. For easy access, the Project Explorer displays these paths and templates, as illustrated in the following figure:



**Kettle Project Explorer – Template Path**

To add, edit, or delete template folders for this project's template path, select **Properties** from the **Project** menu, and then make your modifications in the **Template Path** tab of the **Project Properties** dialog. Use the **New** button to add a folder. Use the **Edit** button to modify the currently selected folder. Use the **Delete** button to delete all selected folder entries.



**Kettle Project Properties – Template Path**

## 6. WORKING IN KETTLE

### 6.1 Creating a Template

To create a new template, select **New** from the **File** menu. Kettle displays a basic template in the editor window and lists the template in the Document List.

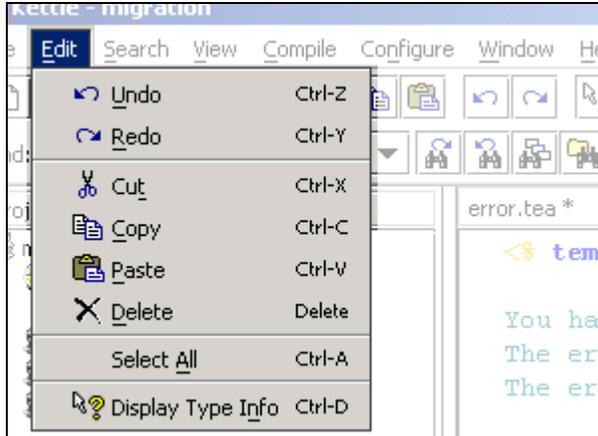
The template does not appear in the Project Explorer until the template is saved. To save the template, select **Save** from the **File** menu. The filename must match the template name or a compile error occurs. (The template name is located in the template itself, directly after the keyword "template".) Also ensure that the template is saved in the correct folder with your project file.

### 6.2 Editing Templates

Kettle provides standard text editing functionality for writing and editing Tea templates, plus a number of optional features such as keyword highlighting, statement completion, and error underlining.

#### 6.2.1 Using Basic Editing Tools

Standard Windows-style text editing tools are accessed from the **Edit** menu.



**Cut**, **Copy**, **Paste**, **Undo**, **Redo**, and **Display Type Info** are also available from the toolbar.



Kettle supports multiple levels of undo and redo. However, any template change following an undo clears the redo buffer.

**Display Type Info** displays (in the output window) the syntax for the variable or function at the cursor position.

## 6.2.2 Using Find/Replace

Kettle features a powerful suite of find/replace tools, all easily accessible in a toolbar. This toolbar is composed of a Find textbox, Find buttons, Replace textbox, Replace buttons, and two filter buttons.



To find text, type that text into the Find box and click on the appropriate Find button. The following table describes the Find tools.

Tool	Button	Description
<b>Find Next</b>		Finds the next instance of the search text. This searches the currently active document forwards from the cursor.
<b>Find Previous</b>		Finds the next instance of the search text. This searches the currently active document backwards from the cursor.
<b>Find in Open Documents</b>		Finds all instances of the search text in all currently open documents. The search results display in the output window.
<b>Find in Files</b>		Finds all instances of the search text in all files of a selected folder. The search results display in the output window.

**Table 9 – "Find Text" Tools**

To replace text, type the old text into the Find textbox and the new text into the Replace textbox. Click on the appropriate Replace button. The following table describes the Replace tools.

Tool	Button	Description
<b>Replace Next</b>		Finds the next instance of the search text and replaces it with the replacement text. This searches the currently active document forwards from the cursor.
<b>Replace All</b>		Finds all instances of the search text and replaces them with the replacement text.
<b>Replace in Open Documents</b>		Finds all instances of the search text in all currently open documents and replaces them with the replacement text.

**Table 10 – "Replace Text" Tools**

Both find and replace functions can be limited to only those instances where the text matches the case or the whole word. Clicking on the **Match Case** or **Whole Word** buttons can toggle these filters. These filters are described in the following table.

Filter	Button	Description
<b>Match Case</b>		The find or replace action distinguishes between uppercase and lowercase letters. Only those instances that match cases are found or replaced.
<b>Whole Word</b>		The find or replace action only searches or replaces whole words and not instances where the search text matches part of a larger word.

**Table 11 – Find/Replace Filters**

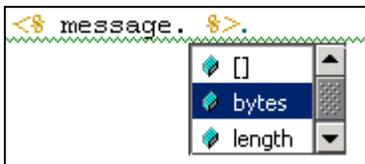
### 6.2.3 Syntax Highlighting

Kettle's text editor supports multiple fonts and colors for text used within the editor. This customizable feature allows users to distinguish between code and text regions as well as provide an easier way to read templates.

To customize or disable syntax highlighting, select **Preferences** from the **Configure** menu, select **Syntax Highlighting**, and adjust the settings accordingly. (See [Table 7 – Kettle Editor Preferences](#).)

### 6.2.4 Statement Completion

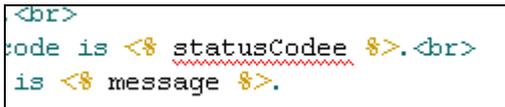
A list of available property types is automatically displayed when property statements are being typed. The properties list selects the closest match, updating continuously as you type. Press **Enter**, **Tab**, or **Spacebar** at any time to insert the selected property name.



To enable or disable the **Auto list properties** option, select **Preferences** from the **Configure** menu, select **General**, and toggle the setting for **Show property list, when "." is typed**.

### 6.2.5 Error Underlining

Syntax and type errors are automatically underlined by Kettle. Compile errors are underlined by Kettle after an unsuccessful compile.



To enable or disable error underlining, select **Preferences** from the **Configure** menu, select **General**, and toggle the setting for **Automatically underline errors as you type**. To enable or disable error underlining only for compile errors, toggle the setting for **Underline compilation errors** in the same dialog box.

## 6.3 Compiling Templates

To compile the Tea template currently in the editor window, select **Compile Template** from the **Compile** menu. To compile all templates in the project, select **Compile All** from the **Compile** menu.

When the templates have finished compiling, the Compilation Error List opens or updates at the bottom of the application, and any compilation errors are underlined in the template (if Compilation Error Underlining is enabled).

By default, Kettle automatically saves changes when a "Compile All" is successful. To disable this option, select **Preferences** from the **Configure** menu, click on **File**, and uncheck the setting named **Automatically save files on successful compile all**.

If you would like to preview a template *without* compiling it first, click on **Show Template in Browser** from the **View** menu.