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Overview

ICEfaces Eclipse Integration provides ICEfaces and ICEfaces facelets support for developers who use **Eclipse IDE for Java EE Developers (Galileo, v3.5)** for ICEfaces application development. This integration extends Eclipse's Web Tools Platform (WTP) and provides following extra features for ICEfaces support.

- Installs ICE faces, ICE faces Facelets, and JSF Facelets Tools Incubator
- Accesses a new ICEfaces Eclipse update site hosted on www.icefaces.org to provide a list of available ICEfaces runtime libraries for use with the integration. Currently, ICEfaces 1.8.1 runtimes are available. Future ICEfaces runtime library releases (1.8.2, etc.) can be directly accessed via this tool integration without requiring uninstalling and re-installing the Eclipse integration itself.
- Adds ICE faces, ICE faces Facelets, and dependent libraries to JSF projects
- Configures project web.xml and faces-config.xml files for ICE faces
- Provides ICEfaces/Facelets friendly JSP/JSPX page templates
- Adds ICE faces components to the Eclipse Visual JSF Page Designer (part of JSF-JSP Editor)
- Visual editing of JSF pages; Drag & drop components onto page, edit properties via properties editor, etc.

Requirements

1. Eclipse IDE for Java EE Developers v3.5 (Galileo)

This bundle includes required Eclipse WTP v3.1 (Web Tool Platform). It can be downloaded from http://www.eclipse.org/downloads/packages/eclipse-ide-java-ee-developers/galileor

2. ICEfaces- 1.8-Eclipse- 3.5.0-plugins- v3.6.1.zip

This is core package of ICE faces Eclipse Integration. It can be downloaded from http://www.icefaces.org/main/downloads/os-downloads.iface.

Installation

Uninstall previous release

Uninstall previous release of ICE faces Integration for Eclipse can be done by **Help** -> **About Eclipse** If ICE faces Logo shows up in About Eclipse dialog, click **Installation Detail**



In Eclipse Installation Details dialog, select 3 ICE faces Integration for Eclipse features, and click Uninstall button.

Ş	Eclipse Installation Details	×
ſ	Installed Software Installation History Features Plug-ins Configuration	
		a
	Name Version Id	
	🖗 CollabNet Merge Client 1.9.1 com.collabnet.subversion.merg	
	🗷 🖗 Eclipse IDE for Java EE Developers 🛛 1.2.0.200 epp.package.jee 👘	
	👘 🌆 ICEfaces Eclipse Integration - Core 🛛 3.6.0.200 com.icesoft.ide.eclipse.icefaces.	
	👘 🌆 ICEfaces Facelets Eclipse Integration (3.6.0.200) com.icesoft.ide.eclipse.icefaces.	
	🖗 JNA Library 3.0.9 com.sun.jna.feature.group	
	🐢 JSF Facelets Tools Incubator 🔋 0.2.0.200 org.eclipse.jst.jsf.facelet.feature 🗸	
	Update Uninstall Properties Close	ב

After uninstall, restart Eclipse is required even though sometimes Apply Changes may work but it is recommended to restart Eclipse prioro to proceeding installation process.

Install ICEfaces Integration for Eclipse

Download and extract ICEfaces- 1.8-Eclipse- 3.5.0-plugins-v3.6.1.zip to a local directory, for example,

C:\\ icefaces.tools.update. After they are extracted, 2 sub-directories features and plugins are created as shown below. -> ReadMe.pdf

- -> ReleaseNotes.html
- -> features

---> com.icesoft.ide.eclipse.icefaces.core.feature_3.6.1.200907151336

---> com.icesoft.ide.eclipse.icefaces.facelets.feature_3.6.0.200907151336

---> org.eclipse.jst.jsf.facelet.feature 0.2.0.200907151336

-> plugins

```
---> com.icesoft.ide.eclipse.designtime_3.6.1.200907151336
```

---> com.icesoft.ide.eclipse.icefaces.core_3.6.0.200907151336

- ---> com.icesoft.ide.eclipse.icefaces.doc_1.8.1.200907151336.jar
- ---> com.icesoft.ide.eclipse.icefaces.facelets.core_3.6.0.200907151336.jar
- ---> org.eclipse.jst.jsf.facelet.core_0.2.0.200907151336.jar
- ---> org.eclipse.jst.jsf.facelet.doc.user_0.2.0.200907151336.jar
- ---> org.eclipse.jst.jsf.facelet.tagsupport_0.1.0.200907151336.jar
- ---> org.eclipse.jst.jsf.facelet.ui_0.1.0.200907151336.jar

To install ICE facs Integration for Eclipse Galileo

- 1. Start Eclipse. From Eclipse main menu bar, select Help -> Install New Software... -> Add --> Local ...
- 2. select C:\\icefaces.tools.update directory, where the zip files have been extracted in above step. And click **Ok**.

🛢 Add	Site		
		13)
Name:	ICEFaces Local Update		Local
Location:	file:/C:/icefaces.tools.update/		Archive
_			
?			Cancel

3. Ensure Group items by category is unchecked in Available Software wizard page (see screenshoot below)

🕮 Install	
Available Software Check the items that you wish to install.	
Work with: ICEfaces Local Update Site - file:/ Find more software by working with	C:/icefaces.tools.updat.v Add
type filter text	
Name	Version
 ✓ ICEfaces Eclipse Integration - Core ✓ ICEfaces Facelets Eclipse Integration ✓ ISF Facelets Tools Incubator 	3.6.1.200907151336 3.6.0.200907151336 0.2.0.200907151336
Details	
Show only the latest versions of available sof	tware 🔲 Hide items that are already installe
Group items by category	What is <u>already installed</u> ?
🗹 Contact all update sites during install to find r	required software
?	Jext > Finish Cancel

- 4. Check all features listed in the table as shown above:
 - ICEfaces Eclipse Integration Core
 - ICEfaces Facelets Eclipse Integration
 - JSF Facelets Tools Incubator
- 5. Click Next and accepts Licences, finally click Finish. This step requires restart Eclipse.

Create new project with ICEfaces capabilities

The following instructions describe how to use how to create a new project with ICE faces capabilities.

- 1. From Eclipse main menu bar, select File -> New -> Project...,
- 2. In New Project wizard, select Web -> Dynamic Web Project -> Next>
- 3. Type in project name, select Target Runtime. For Configurations, select **ICEfaces project** for standard ICEfaces project; Select **ICEfaces Facelets Project** for ICEfaces facelets project. And click **Next>**.

🗧 New Dynamic Web Project
Dynamic Web Project 📃 📃
Create a standalone Dynamic Web project or add it to a new or existing Enterprise Application.
Project name: ICEFacesProject
Project contents
✓ Use default
Directory: C:\Workspaces.Eclipse\WTP.v3.5\ICEfacesProject Browse
Target runtime
Apache Tomcat v6.0
Dynamic web module version
2.5
Configuration
ICEFaces Project 🔽 Modify
ICEFaces Facelets Project
JavaServer Faces v1.1 Project
EAR project name: EAR 💽 New
Working sets
Add project to working sets
Working sets: Select
? Cancel

4. In Web Module wizard page, be sure to check Generate web.xml deployment descriptor. Click Next>

🔯 New Dynamic	: Web Project				
Web Module Configure web mod	e Iule settings.	쏊			
Context root: Content directory:	ICEFacesProject WebContent ml deployment descripto)r			
?		< Back	Next >	Finish	Cancel

5. In JSF Capabilities wizard dialog, a download button available to download required JSF, ICEfaces, ICEfaces supporting libraries. Click the button. See below

👼 New Dynamic We	eb Project 📃 🔲 🔀
JSF Capabilitie	ers ary must be selected.
JSF Implementation Lib Type: User Library	rary
JSF Configuration File: JSF Servlet Name:	/WEB-INF/faces-config.xml Faces Servlet
URL Mapping Patterns:	/faces/* Add Remove
?	<pre>Gack Next > Finish Cancel</pre>

6. Once download button is clicked, you will noticed list of libraries available for you to download. Libraries have to be downloaded one by one. ICEfaces Core library includes ICEfaces and depenent jar files which are

👹 Download Library		
Download Library Select a library to download from the specified pr	ovider.	
Library ICEFaces Core Library v1.8.1 ICEFaces Facelets Library v1.8.1 ICEFaces Support Library v1.8.1 JSF 1.2 (Apache MyFaces) JSF 1.2 (Sun RI) Standardized EL Library v1.0	Download Provider ICEsoft Technologies ICEsoft Technologies ICEsoft Technologies Apache Software Foundation Sun Microsystems ICEsoft Technologies	
Library name: Download destination:		Browse
?	< Back Next >	Finish Cancel

normally not included in other libraries. ICEfaces Support Library includes required some Apache common jar files. Those jar files are included in JSF 1.1 (Sun RI), JSF 1.1 (Apache MyFaces), and JSF 1.2 (Apache MyFaces) so that you don't need it if you use JSF 1.1 (Sun RI), JSF 1.1 (Apache MyFaces), and JSF 1.2 (Apache MyFaces). Do not include ICEfaces Facelets Library if project is not ICEfaces facelets project.

👹 New Dynamic W	eb Project 📃 🗖 🔀
JSF Capabilitie Add JSF capabilities to t	his Web Project
JSF Implementation Lit Type: User Library ♥ ➡ ICEFaces Core ♥ ➡ ICEFaces Sup ♥ ➡ JSF 1.2 (Sun I	e Library v1.8.1 port Library v1.8.1 RI)
JSF Configuration File:	/WEB-INF/faces-config.xml
JSF Servlet Name:	Faces Servlet
JSF Servlet Classname:	javax.faces.webapp.FacesServlet
URL Mapping Patterns:	/faces/* Add Remove
?	<pre></pre>

- 7. To download library, highligt JSF 1.2 (Sun RI) and click Next> to accept license and cllick Finish. Repeat the same step for ICEfaces Core Library, and ICEfaces Support Library as well. After download, make sure to check the checkbox of **Includes libraries with this application.** Click **Next>**.
- 8. ICE faces library wizard. Click Next>

👼 New Dynamic Web Project 📃 🔲 🔀
ICEFaces configurations
Create a ICEfaces sample page from template ICEfaces sample page file name ICEfacesPage1 (Extension is not required)
web.xml Context Parameter javax.faces.DEFAULT_SUFFIX .jspx v com.icesoft.faces.concurrentDOMViews com.icesoft.faces.concurrentDOMViews com.icesoft.faces.synchronousUpdate com.icesoft.faces.uploadDirectory upload com.icesoft.faces.uploadDirectory upload com.icesoft.faces.uploadMaxFileSize 4048576 v Servlet v Persistent Faces Servlet com.icesoft.faces.webapp.xmlhttp.PersistentFacesServlet v Blocking Servlet com.icesoft.faces.webapp.xmlhttp.BlockingServlet v uploadServlet com.icesoft.faces.component.inputfile.FileUploadServlet Listener com.icesoft.faces.util.event.servlet.ContextEventRepeater com.sun.faces.config.ConfigureListener
Cancel

9. Now you can click Finish button if ICE face facelet facet is not selected. Otherwise if Next> is enabled, clicke Next> buuton to continue configure Facelets/ICE faces facelets facet.



Create ICE faces friendly page with provided template

ICE faces friendly JSP page templates are also provided in this integration to make your ICE faces application development easier. The following instructions describe how to use the provided template.

- 1. Right click on WebContent folder in Package Explorer view and select following menu items New -> html file)
- 2.

JSP . (For ICE faces facelets project, select menu New -> 1	html to create x
Type in jspx file name with extension .jspx and click Next	>
Enter or select the parent folder:	
ICEfacesProject/WebContent	
▲ ⅔ ICEfacesProject	
🗁 .settings	
build	
🗁 src	
> > WebContent	
File name: ICEfacesPage.jspx	
<u>A</u> dvanced >>	
? < <u>Back</u> <u>Next</u> > <u>Finish</u>	Cancel

Select JSP Template Select a template as initial content in the	JSP page.	
🔽 Use JSP Template		
Templates are 'New JSP' templates found	l in the <u>JSP Templates</u> preference page.	
Name	Description	
New ICEfaces JSP File (.jsp)	ICEfaces JSP page template	
New ICEfaces JSPX File (.jspx)	ICEfaces JSPX page template	
New JSP File (html)	JSP with html markup	
Preview		
xml version="1.0" encodin</td <td>ng="\${encoding}" ?></td> <td></td>	ng="\${encoding}" ?>	
<jsp:root <="" td="" version="1.2"><td></td><td></td></jsp:root>		
xmlns:jsp="http://java.su	n.com/JSP/Page"	
xmins:r-"nctp://java.sun	com/jsf/btml"	
xmlns:h="http://jawa.sun.	oom, joz, nomz	

4. Current Eclipse release version v3.4 doesn't set JSP-JSP page editor (also called Visual JSF Page Designer, Web Page Editor) as editor for jspx page. Forcing JSP-JSP page editor to load jspx file is required. See next section "Use ICEfaces components in Visual JSF Page Designer".

Use ICEfaces components in Visual JSF Page Designer

New Eclipse Visual JSF Page Designer has been added since Eclipse 3.3 as part of WTP 2.0. It provides an intuitive close-to-WYSIWIG editing experience. It allows visually JSF page layout and components drag and drop. See **JavaServer Faces Tooling Developer Guide** for detail. This integration includes ICEfaces components design time support for Eclipse Visual JSF Page Designer. ICEfaces components palette view, property view for ICEfaces components' attributes are both supported.

- 1. Use JSF-JSP editor for ICEfaces page. Current Eclipse release version v3.4 doesn't set JSP-JSP page editor as editor for jspx page. Following the following instructions to open ICEfaces page in JSF-JSP editor.
 - Right click on the ICE faces jspx page
 - Select **Open with** -> **Other** ..., Select Web Page Editor, and click OK button
- 2. Select ICE faces components in Palette view

		ICEfaces
directive.page	I	🔢 👘 column
outputDeclaration		😐 🥅 columnGroup
		a 👖 📩 columns
		🚰 🖂 commandButton
Thank you for using ICEfaces.		🛄 📸 commandLink
		🖬 🖾 dataPaginator
		🛄 dataTable
R messages		form
		gMap
		💁 graphicImage
column]	column2	🖧 inputFile
		🖾 inputHidden
		A inputRichText
		inputSecret

3. Edit ICE faces component attributes in Property editor

📳 Problems	⁄ Tasks 🔲 Properties	없 🕴 Servers	🛍 Data Source Explorer	📔 Snippets	
				ic	e:form 🔻 🌣
Quick Edit	ID:				
Attributes	partialSubmit:	true			-
	Rendered On User Role	:			
	Style:				Edit

Run ICE faces application under Eclipse

After ICEfaces project is created, ICEfaces application and ICEfaces pages are developed, you should be able to deploy and run on web container or application server. The way of deploying and running ICEfaces project onto server is the same as other dynamic web projects. One thing you may need to pay attention is URL pattern to be used. As an extension to JSF, ICEfaces provides its own version of the FacesServlet (Persistent Faces Servlet, com.icesoft.faces.webapp.xmlhttp.PersistentFacesServlet) as well as an additional Servlet (BlockingServlet) for handling asynchronous updates. The URL used to invoke ICEfaces page should follow the url patterns for Persistent Faces Servlet instead of Faces Servlet defined in web.xml. By default ICEfaces tooling adds *.iface url-pattern for Persistent Faces Servlet as following

```
<servlet>
    <servlet-name>Persistent Faces Servlet</servlet-name>
    <servlet-class>
        com.icesoft.faces.webapp.xmlhttp.PersistentFacesServlet
        </servlet-class>
        <load-on-startup> 1 </load-on-startup>
</servlet>
</servlet>
<servlet-mapping>
        <servlet-name>Persistent Faces Servlet</servlet-name>
        <url-pattern>*.iface</url-pattern>
```

</servlet-mapping>

In this case request url is http://hostname:port/web_app_name/IECfacesPage1.iface As indicated in ICEfaces project configuration wizard, ICEfaces Eclipse Tooling actually adds a index.jsp and a sample ICEfaces page (ICEfacesPage1.jspx by default). This index.jsp does nothing but forwards request to ICEfacesPage1.iface.

Migrate ICEfaces project prom previous release

For ICE faces project created by ICE faces Integration for Eclipse Galileo v3.6.0, no action is required.

For ICE faces project created by ICE faces Integration for Eclipse Ganymede (v3.4.x) v3.5, following instructions describe how to migrate the project to Eclipse Galileo (v3.5):

- 1. In Eclipse Galileo, File -> Import... -> General -> Existing Projects into workspace -> Next>
- 2. Follow Import wizard, select root directory of the project which is going to be imported.
- 3. Press Finish button

After the project is imported, you will notice errors in Problem view and these errors are all about broken library references. These broken library references need to be fixed as described below.

1. Right click the project in Project Explorer view, click Build path -> Configure Build Path... which leads to project properties dialog.



2. Under Libraries tab, a list of libraries is shown with [missing JSF Library]

Java Build Path	↓ ↓ ↓ ↓ ▼
🕮 Source 📴 Projects 🛋 Libraries 🗞 Order and Export	
JARs and class folders on the build path:	
🗷 🛋 Apache Tomcat v6.0 [Apache Tomcat v6.0]	Add JARs
 Image: Barrier Content of Cont	Add External JARs
	Add Variable
Com.icesoft.eclipse.sunri\$\$ICEtaces_JXL_V2.6.9 [missing JSF Library]	Add Library
EAK Libraries	Add Class Folder
Are System Libraries	Add External Class Folder
R	Edit
	Remove
	Migrate JAR File
	OK Cancel

- 3. Highlight these libraries and click **Remove** button
- 4. Press Add Libraries
- 5. Select User Library -> Next>
- 6. Select
 - 1. ICE faces Core Library
 - 2. ICE faces Facelets Library if and only if this is ICE faces Facelets project
 - 3. ICEfaces Support Library, it includes required Apache commons jar files. You don't need it if JSF 1.1 Sun RI or MyFaces 1.1 is selected.
 - 4. JSF 1.2 (Sun RI) if runtime server doesn't include one.

🗑 Add Library	
User Library Select a library to add to the classpath.	
User libraries: ✓ ➡ ICEFaces Core Library v1.8.1 ➡ ICEFaces Facelets Library v1.8.1 ✓ ➡ ICEFaces Support Library v1.8.1 ✓ ➡ JSF 1.2 (Sun RI) ■ ➡ Standardized EL Library v1.0	User Libraries
Pack Next > Finish	Cancel

- 7. Press Finish to return to project properties dialog.
- 8. Click **Java EE module Dependencies** and make sure libraries you just added are checked otherwise they will not be deployed.

👼 Properties for ICEfacesProject350 📃 🔲 🔀					
type filter text	Java EE Module Dependencies 🔅 🗢 👻				
 Resource Builders Java Build Path ⊡ava Code Style Java Compiler Java Editor 	This property page lets you add a Web Library dependency to utility projects, JAR files or classpath entries. Archive dependencies will be resolved into the WEB-INF/lib folder of the web module at deployment time. Class folder dependencies will be resolved into the WEB -INF/classes folder. Select the utility project, JAR or classpath entry to add as a Web Library dependency				
Java EE Module Dependencies → Javadoc Location → JavaScript → JSP Fragment → Project Facets	JAR/Module Project Image: A ICE faces Core Library v1.8.1 ICE faces Project350 Image: A ICE faces Support Library v1.8.1 ICE faces Project350 Image: A ISF 1.2 (Sun RI) ICE faces Project350				
Project References Run/Debug Settings Server Service Policies Targeted Runtimes	Add JARs Add External JARs Add Variable				
Task Tags Validation Neb Content Settings	Restore Defaults Apply				

- 9. Click OK buuton
 10. Remove xmlhttp directory under WebContent (Optional).
- 11. Done.