



Icons in JGISShell

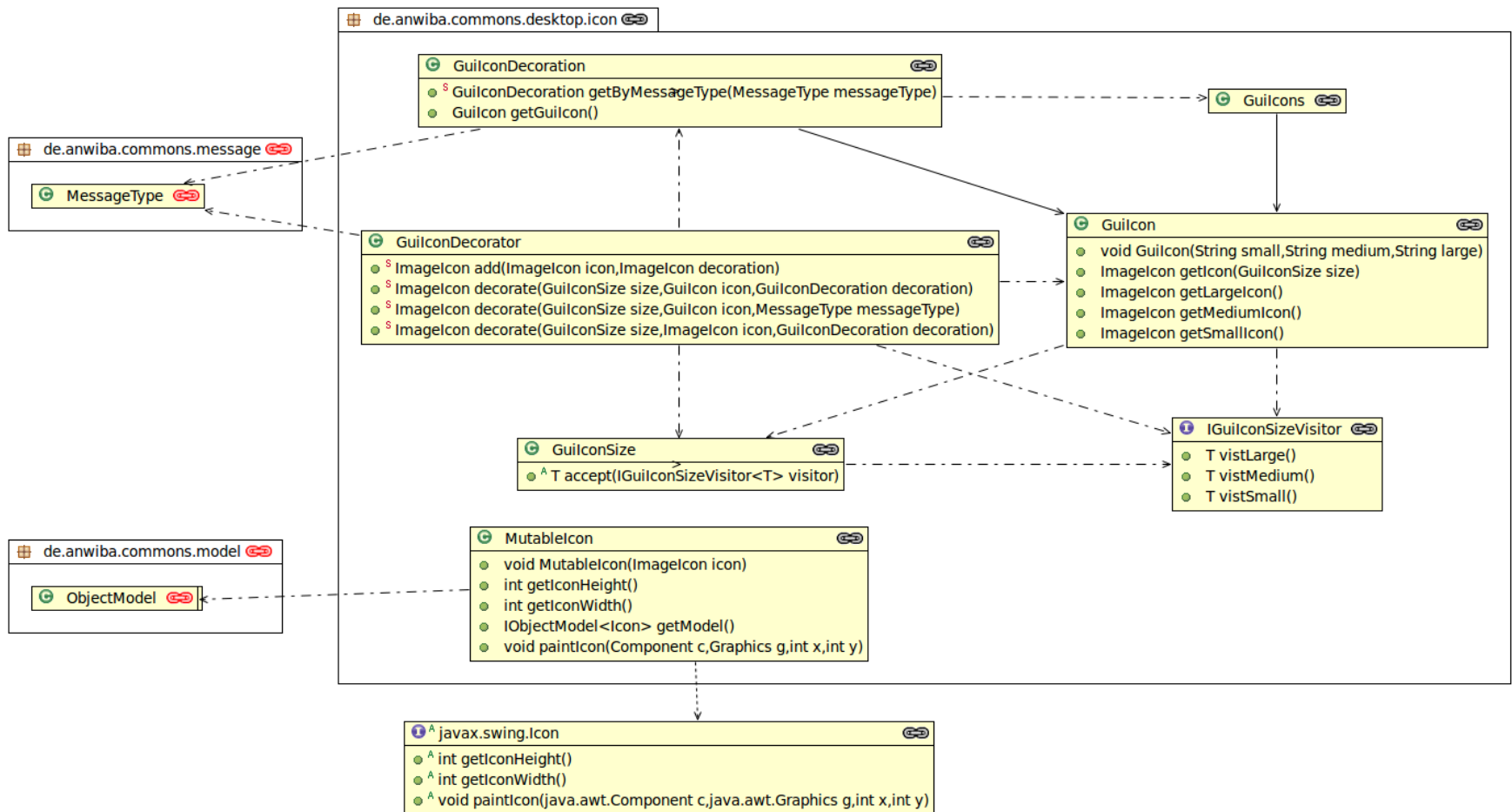
Andreas W. Bartels

Agenda

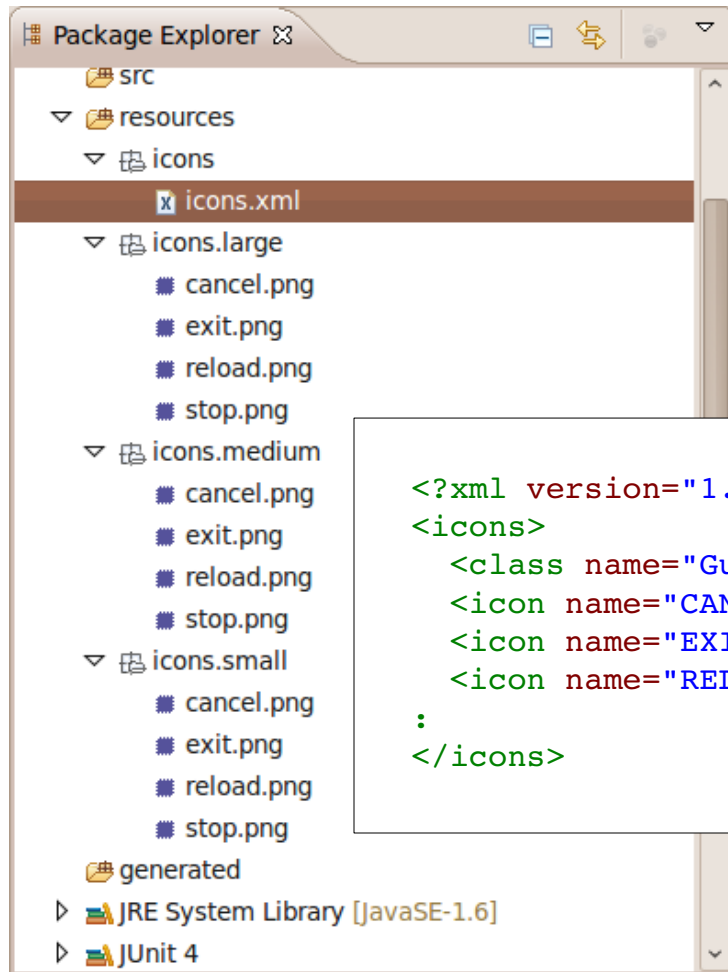
- Motivation
- Java – Framework
- Code Generierung
 - Datenbasis
 - Ant - Task
 - Fehlerhändig
 - Ergebnis
- Eclipse Plugin

- Probleme mit Icons bei der Arbeit
 - Welche Icon habe Ich zur Verfügung?
 - Wie kann Ich von Wo auf vorhandene Icons zugreifen?
 - Wie vermeide Ich redundance?
 - Wie erhalte Ich die konsistents im Workspace?
- Gutes Fortbildungsprojekt -
da Technisch Komplexes aber überschaubares Szenarium
 - Java – Framework
 - XML-Schema und Jaxb für XML-Reader
 - Ant Task für Code Generierung
 - Eclipse Plugin für Usability

Icons - Framework



Code – Generierung - Datenbasis



```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<icons>
  <class name="GuiIcons" package="de.anwiba.commons.desktop.icon" />
  <icon name="CANCEL_ICON" image="cancel.png" />
  <icon name="EXIT_ICON" image="exit.png" />
  <icon name="RELOAD_ICON" image="reload.png" />
  :
</icons>
```

Code – Generierung – Ant Task

```
<?xml version="1.0"?>
<project name="icons" basedir="../..">

  <macrodef name="icons.generate">
    <attribute name="source" default="" />
    <attribute name="target" default="" />
    <attribute name="force" default="on" />
    <attribute name="aggregate" default="on" />
    <sequential>
      <icons.generator iconclass="de.anwiba.commons.desktop.icon.GuiIcon"
        source="@{source}"
        target="@{target}"
        force="@{force}"
        aggregate="@{aggregate}" />
    </sequential>
  </macrodef>

  <taskdef name="icons.generator"
    classname="de.anwiba.tools.icons.ant.task.GuiIconsGeneratorTask">
    <classpath>
      <fileset dir="../ThirdParty/icons/" includes="*.jar" />
      <fileset dir="../ThirdParty/xml/jaxb" includes="*.jar" />
    </classpath>
  </taskdef>

</project>
```

Code – Generierung - Fehlerhändling

force = on

```
[icons.generator] de.anwiba.commons.desktop.icon.GuiIcon
[icons.generator] search file: /home/andreas/work/JGISShell/Commons_Desktop_Core
[icons.generator] add file:
/home/andreas/work/JGISShell/Commons_Desktop_Core/resources/icons/icons.xml

[icons.generator] medium image viewmag.png is not available
[icons.generator]    class  de.anwiba.gis.desktop.map.icon.MapGuiIcons

[icons.generator] large image move.png is not available
[icons.generator]    class  de.anwiba.gis.desktop.map.icon.MapGuiIcons

[icons.generator] no image table.png available
[icons.generator]    class  de.anwiba.commons.desktop.icon.GuiIcons

[icons.generator] conflict, multiple definition for image resource TABLE_ICON
[icons.generator]    class  de.anwiba.commons.desktop.icon.GuiIcons
[icons.generator]    class  de.anwiba.commons.desktop.icon.GuiIcons

[icons.generator] create file:
/home/andreas/work/JGISShell/Build/src/de/anwiba/commons/desktop/icon/GuiIcons.java]
```

Code – Generierung - Fehlerhändling

force = off

```
[icons.generator] de.anwiba.commons.desktop.icon.GuiIcon
[icons.generator] search file: /home/andreas/work/JGISShell/Commons_Desktop_Core
[icons.generator] add file:
/home/andreas/work/JGISShell/Commons_Desktop_Core/resources/icons/icons.xml
[icons.generator] no image table.png available
[icons.generator] class de.anwiba.commons.desktop.icon.GuiIcons
[icons.generator] java.io.IOException: no image table.png available

[icons.generator] de.anwiba.commons.desktop.icon.GuiIcon
[icons.generator] search file: /home/andreas/work/JGISShell/Commons_Desktop_Core
[icons.generator] add file:
/home/andreas/work/JGISShell/Commons_Desktop_Core/resources/icons/icons.xml
[icons.generator] conflict, multiple definition for image resource TABLE_ICON
[icons.generator] class de.anwiba.commons.desktop.icon.GuiIcons
[icons.generator] class de.anwiba.commons.desktop.icon.GuiIcons
[icons.generator] java.io.IOException: conflict, multiple definition for image resource
TABLE_ICON
```


Code – Generierung - Ergebnis

```
// Copyright (c) 2010 by Andreas W. Bartels (bartels@anwiba.de)
package de.anwiba.commons.desktop.icon;

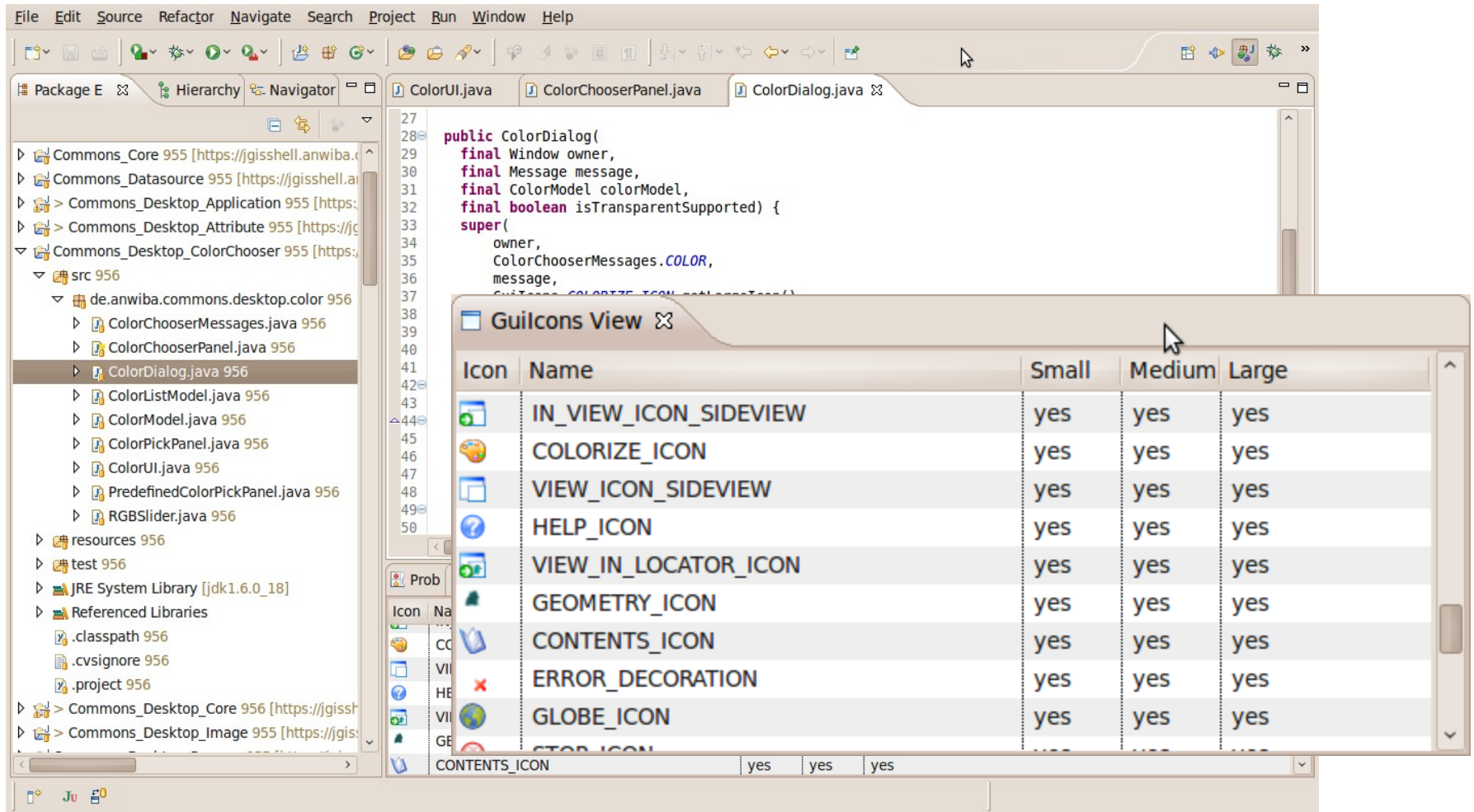
import de.anwiba.commons.desktop.icon.GuiIcon;

public class GuiIcons {

    public final static GuiIcon CANCEL_ICON = new GuiIcon("icons/small/cancel.png",
        "icons/medium/cancel.png",
        "icons/large/cancel.png");
    public final static GuiIcon EXIT_ICON = new GuiIcon("icons/small/exit.png",
        "icons/medium/exit.png",
        "icons/large/exit.png");
    public final static GuiIcon RELOAD_ICON = new GuiIcon("icons/small/reload.png",
        "icons/medium/reload.png",
        "icons/large/reload.png");

}
```

Eclipse - Plugin



The screenshot shows the Eclipse IDE interface. The Package Explorer on the left displays the project structure, with the 'ColorDialog.java' file selected. The Editor on the right shows the Java code for 'ColorDialog'. A 'Guilcons View' dialog is open in the foreground, displaying a table of icons and their availability in Small, Medium, and Large sizes.

Icon	Name	Small	Medium	Large
	IN_VIEW_ICON_SIDEVIEW	yes	yes	yes
	COLORIZE_ICON	yes	yes	yes
	VIEW_ICON_SIDEVIEW	yes	yes	yes
	HELP_ICON	yes	yes	yes
	VIEW_IN_LOCATOR_ICON	yes	yes	yes
	GEOMETRY_ICON	yes	yes	yes
	CONTENTS_ICON	yes	yes	yes
	ERROR_DECORATION	yes	yes	yes
	GLOBE_ICON	yes	yes	yes
	STOP_ICON	yes	yes	yes

- Welche Icon habe Ich zur Verfügung?

Jetzt Antwort über Eclipse-Plugin bzw. Metadaten

- Wie kann Ich von Wo auf vorhandene Icons zugreifen?

Jetzt Antwort über Eclipse-Plugin

- Wie vermeide Ich redundance?

Referenzierung von Icons

- Wie erhalte Ich die konsistents im Workspace?

Überwachung bei der Code-Generierung