# SailorHelper GUI Development

All gui selections are saved using the Java Preference api, so window size, zoom, etc., do not have to be re-entered for each application launch.

The preferences are unique to each configuration, e.g., morse, flags, semaphore and combo. So, for instance, the background color is remembered separately for each configuration.

The enclosing JFrame of the sailor-helper is built in the file **edu.nps.moves.qrtda.elements.gui.OpticalCommsWindow.java**.

Its designer screen looks like this:



The splash screen is found in **src/main/java/edu/nps/moves/qrtda/elements/gui/OpticalCommsNRPSplash.java**. The artwork is in **src/main/resources/edu/nps/moves/qrtda/elements/gui/NPSNRPJointLogo.png**, which is specified by the constant **SAILOR\_SPLASH\_IMAGE** in **OpticalCommsConstants.java** and is loaded through the classloader.

**OpticalCommsWindow** swaps content components for each of the different configurations. Depending on the vertical/horizontal setting the various configurations use the following content holders:

Morse: **VerticalMixedOptical.java, HorizontalMixedOptical.java**

Semaphore: **SemaphoreVerticalOptical.java, SemaphoreHorizontalOptical.java**

Signal flags: **SignalFlagsVerticalOptical.java, SignalFlagsHorizontalOptical.java**

Composite: **CompositeOpticalVertical.java, CompositeOpticalHorizontal.java**

None of these content holders is designed through the Netbeans GUI-builder. They all manage their layouts manually and use **GridBagLayout**.

The horizontal row containing the text field, combo box, etc., which deals with receiving input text from the users is separately designed in **TextEntryPanel.java**. For semaphore and signal flags panels, where combo boxes are used to specify non-text input, **SignalFlagsEntryPanel.java** and **SemaphoreEntryPanel.java** are used in place of TextEntryPanel.java.

Art work for the 3 comm types is handled by **MorseArtAndSound.java, SemaphoreArt.java and SignalFlagArt.java**. The image files are located in **src/main/resources/edu/nps/moves/qrtda/morseArt ,**

**src/main/resources/edu/nps/moves/qrtda/semaphoreArt ,**

**src/main/resources/edu/nps/moves/qrtda/signalflagsArt.**