

# RTView Advanced Design Topics - Scoping

## Global Scoping

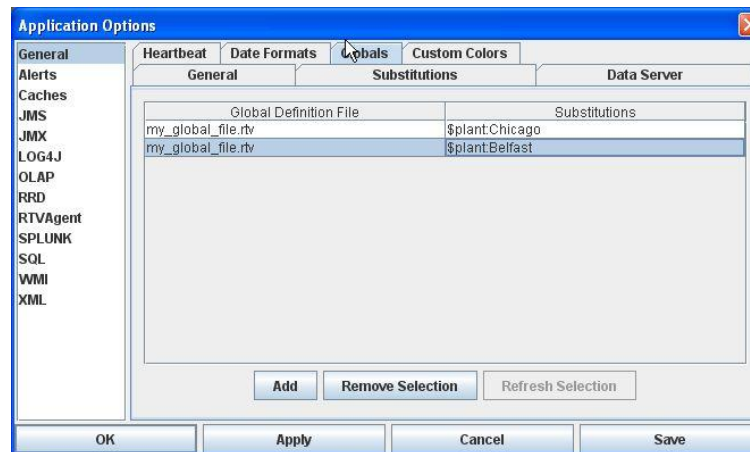
- It is possible to specify global functions and variables that will be available to objects in any display. One instance of each global variable and function exists for each client in all deployments.
- Global functions and variables are defined in Global Definition files that are read by the Display Builder, Display Viewer, Display Server, Data Server and Historian.
- Global functions are updated even if currently open displays do not use those results.
- Global definition files can be parameterized by specifying substitution values in your function definitions.
- Global definition files must be registered using the builder (Tools>Options>General>Globals) before they take effect.

## Global Definition File

A Global definition file is an Enterprise RTView display (.rtv) file that contains your function and variable definitions. To create a Global Definition file in the builder:

- 1.File>New to create a new display file
- 2.Add your function and variable definitions. Multiple function and variable definitions can be added to a single Global Definition file. Functions can be parameterized with substitutions if desired.
- 3.File>Save to save file
- 4.Tools>Options>General>Globals

to register file as a global definition file. Add substitutions if appropriate.



## Global vs Local Scoping

When to use global functions/variables versus functions/variables in include files

Although the results may seem similar using an include file vs a global file, there are performance differences between the two approaches.

A global function or variable is appropriate when:

- the same function result is needed in most of your displays
- you want the same variable value in all of your displays

A function or variable in a include file is appropriate when:

- the function result is needed in only a few displays
- the variable value needs to be different in each display

Global functions are updated even if currently open displays do not use those results, therefore avoid defining functions globally unless the results are commonly required information. If you have a function that will only be used in a few displays, you may get better performance using a local or include file function.