GUI Scripting

for StarSiege: Tribes

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Last Updated 24th of february 2000

These notes are intended to make it easier for a Tribes scripter to put together a set of gui options and use them with NewOpts. The descriptions and instructions here are inconsistent and rather informal, but so am I. I tried to write for scripters who know little or nothing about gui editing, but I may have taken some things for granted. I sincerely hope you find them useful. Should you have any comments, suggestions, ommision reports, or bug reports, please send them to Zear or BigBunny.

Enjoy

PART 1: CREATING A NEWOPTS-PAGE

This part will introduce you to creating your gui files and editing existing ones – using NewOpts-pages to start with. Before you begin, I should let you know that creating your own options page requires the creation of a .gui file. When I complete DynOpts, you will be able to create your page with script alone, but that is still under development.

Also, I use the terms 'component' and 'object' interchangeably. Object is the correct term, but I'm a Java programmer, so I forget and use component a lot. Please be understanding.

The first step is to create another config directory. Trust me, this makes a big difference. Rename your regular config to config.play or something like that, then create a new config directory. If you do not have a <Tribes>\gui directory, you need to create one. You can then rename the config directory to config.dev (or something like that) and rename your original config directory to config again when you want to play.

Install the Presto Pack (v0.93), NewOpts (remember to unzip this to your <Tribes> directory with subdirectories, as NewOpts will need to put a file in your gui directory) and NewOptsBuilder (providing a lot functions that will speed up your work).

Get them from www.planetstarsiege.com/presto, www.planetstarsiege.com/zear, www.planetstarsiege.com/bigbunny.

Now we have to make sure no other NewOpts pages get loaded, so we now will restrict options page registration. Set: $NewPrefs::doregister = "<your page name>"; in config\NewPrefsPrefs.cs, where <your page name> is the name under which you intend to register your new options page. All other pages' registration attempts will fail, leaving you with a clean slate to begin with, and only your page loaded after that.

Note: NewOptsBuilder allows you to set your script in game by the console and then use cropToScript(); which will delete all gui-elements on the NewOptsFrame, except those that are named according to the script you set. You can also just type clearNewOpts(); to start with a 'clean' NewOptsFrame. Choose the way you prefer.

Now start Tribes and go to the scripts section of the options. You will see a combo box and a frame on the page. This is why you created a new config directory.

Type the following in the console (when you are on the options-page!):

```
editGui();
tree();
cursorOn(MainWindow);
```

Note: If you want to go through all this quickly (probably because you've through it too often), NewOptsBuilder users can use the function guiTools(); which will do this, and even create the treewindow with the NewOptsFrame as root. You can always type tree(); later, to open a treewindow from the 'normal' root.

That gives you the full compliment of gui editing tools, as provided by Dynamix. You will see three windows. There will be a tree-view window, a 'GuiEditBar' window, and a

properties sheet. Let me explain them a little before you go messing around - you can crash Tribes pretty quick with this stuff.

The tree window shows all the objects currently loaded by the game. Almost any object can be a container (technically speaking) so the objects can be nested. If you click on an object then right click on it, you will get a popup menu for that object. Mostly you will choose edit. ALWAYS click left-click on an object before right clicking on it, or you may end up performing the operation on the wrong object - selection does NOT automatically get set to the component you right-clicked on and some operations will shift the selection on you. When deleting objects prepare for the occasional crash (more like Tribes just disappears). You will be saving your work ALL the time (I'll get to that too). You can also move a component from one container to another by dragging and dropping. This is also crash prone. I think most of the crashes are due to deleting or moving an object that Tribes is updating, but I can't prove it. One more thing about the tree – it does not update to reflect changes after most operations. If you need to see the change in the tree view, collapse the tree at a point above where the changes should show, then re-expand. The changes will show after that (but it can sometimes get tedious, so I fly 'blind' a lot).

In the tree view, each object is described by a line like:

The folder symbol could also be a green dot or a brownish-black cube. It doesn't really matter for this type of work – you will always deal with the folders. The number (8345 here) is the object's ID number. Almost any function call that takes an object as an argument will take the number. These numbers are not guaranteed to stay the same. They are auto-numbered in the order of creation, and since script additions and changes can change object creation order, they will change on you. We can work around this later. The next thing is the object's name in quotes ("OptionsGui"). While many functions will take the name instead of the ID, sometimes it is unreliable. Many of the objects in the tree do not have names (""). You will want to name many of the objects you create (more later). The last thing on the line is the object's type (SimGui::Control).

The gui edit bar has buttons for aligning objects, bringing them to the back or front, etc. The one most useful now is the one labeled 'Edit'. You may have noticed that in the main Tribes window, you can now drag and resize objects with the mouse. If you click 'Edit' in the bar, you will toggle this mode on and off. You will do it a lot.

Note: For some people the mouse may get ankered to a point in the Tribes window. I couldn't figure out what caused this, but it seems to happen if you are multitasking – using other programs at the same time.

The last window is the property sheet. When in 'Edit' mode, any object you click on will display its properties here. I will cover the different properties later, but for now, you should also know that this window has a 'twin'. When you right-click an object in the tree view and choose edit, another identical window will appear (sometimes it will be at bottom right edge of the screen and you will have to collapse your Windows task bar to get to it). These have the same functionality, but one is for the main Tribes window, and the other is for the tree view. Don't confuse them – it is easy to do and leads to situations where you keep setting a property, but it never changes on the property sheet (duh, wrong sheet), because even when the two property sheets both display properties for the same object, they are not synchronized.

One last thing about all these windows – DON'T close any unless you won't need them until after a restart of Tribes. Some won't come back, others will, but with weird side

effects. Of course if you accidentally close one, you can save your work and restart Tribes, but trust me, after the umpteenth time, you will start to avoid closing them.

These tools are provided by Tribes, not me, and they are probably irresistible about now if you've never seen them before. As long as you don't make a call to storeObject(); or mess with anything in PlayGui, you can do anything a restart won't fix. So go ahead and play with the tools, then come back when you are bored.

Did you have fun? Cool, huh? As you may have noticed you can really change every gui you want. But for now, we I will explain how to start a NewOpts-page.

Collapse the tree view all the way, then re-expand just one level. Look for an object named "OptionsGui". This object and its contents are actually the contents of the file gui\Options.gui. It's not important at this point but interesting to note. Expand OptionsGui, and you will see it has a child of the type FearGui::FGShellBorder. This is the component that provides that annoying border Cowboy and I couldn't deep-six in CMDHud. Expand it and look for an object of type FearGui::FearGuiBox (fifth child down). This component provides the green double-line box around the stuff inside the shell border (I like this component and use it in my own stuff). Expand it and look for an object named "NewOptsPage" (last child). This is transparent, but it covers the area with the cool b&w design to the right of the wide green bar. Expand NewOptsPage and look for an object named "NewOptsFrame" (first child). This is the frame with the thin green border around it, and for the most part is your options playground. If you expand that, you will see it contains one object – "NewOptsChooser". You will learn to expand to this point pretty quickly, because this is where you do all your work (not that there isn't other interesting stuff in there).

When a page is registered with NewOpts (explained later), all the components are put on the page together, and only the current page's components shown. If I didn't do this, CFGButtons would not work correctly. If more than one page were loaded at a time, you would have possibly hundreds of components here. This is why you created a new config directory and why you commented out the lines in NewPrefs.cs. Since you are going to save the page to create yours, you don't want to have to delete the majority of them, nor do you want them cluttering up your 'workspace'.

NewOptsPage has dimensions of 294x306. I could have made it bigger, but if I did, some low-resolution players couldn't see the whole thing. You will notice that Dynamix did this all around. I thought of adding a scroll bar, but that adds an object layer that breaks CFGButton inter-communications. And making a gui is enough work without making a different set of pages for each screen resolution (and that would be your work to do not mine or the script's). You can just make another page if you run out of room – don't worry.

Unfortunately, part of the space you get to work with is taken up by the NewOptsChooser. I made it as small as possible, but it pretty much had to go in here. Leave it there for now, and then when you finish your page you can delete the chooser before saving to conserve on your file sizes. Not that it makes much difference - a few more bytes is all. The objects themselves are not saved, just descriptions, so they save pretty small. Also, my page loading code is smart enough to ignore this object if you load in a second copy with your page. For now you need it there so you don't accidentally place an object over it.

Now you add components for your options page. NewOptsBuilder users can use the console command addNewOpts(); to spawn a default item in the NewOptsFrame, other will have to go back up to the level of NewOptsPage and troll through its sibling's children and grandchildren, ad nauseum. Find the component type you want, click on it, right-click on it, and choose copy. Click on NewOptsFrame, right click on it, and choose paste. Your first component – aren't you proud? You can probably see it in the main Tribes window.

Resize and reposition, fill in properties, and repeat until done (there's lots of info on what to set how in section 2). Of course there are a few thing to know and do along the way.

Save a LOT. Here's how: at the console, type:
storeObject(<ObjID>, <filename>);

where <objID is the object number for NewOptsFrame (get it from the tree view), and <filename> is "temp\\YourGuiName.gui". You can save to config or to temp. I suggest temp. Any other place will result in your being told that your chosen directory cannot be written to. The helpful little dialog will let you retry or give up, but retrying doesn't let you change the directory, so it fails again, and again. Canceling will dump you unceremoniously out of Tribes, and there went any unsaved work, down the digital drain. It hurts on a physical level when you lot of work with no saves.

Note: NewOptsBuilder users can use the command storeNewOptsPage(); which autosaves your page in the temp dir, according to the name you have set using setScript();.

Once you have typed this once, you can just up-arrow back to the line and do it again later, saving you the typing (important when you work from a fast hunt-and-peck like me).

OK, now you want to know how to load your gui for testing and to re-edit it. First create a script file for your script, unless you already have one then just use that one). At the **end** of the file (I'll explain in the NewOpts::register() description in Part 3), add the line

NewOpts::register("YourCoolGui", "temp\\YourGuiName.gui", "", "", TRUE);

I'll explain what that does in the NewOpts.cs API section. For now, just put that in, save the file, and make sure it gets Include()'ed at startup like normal. Now when you restart Tribes (you *did* save your gui, right?), whatever you did in your gui will be there in the options. Woohoo!

A few words about the location of your gui file. I try to put it out of harm's way. For instance, the NewPrefs guis are in the config\NewOpts\Gui directory. Let's not clutter up the config directory, OK? Also, you have saved your gui to the temp directory so far. When you distribute your script, you can put it where you want (within reason) and you will just change the path to it you pass in the call to NewOpts::register();

Making a Dialog

The best way to make a dialog is to use DialogOpts::pushDialog() to push a dialog of the type you want, then modify and save it as your own. You will likely want to choose the LARGE type dialog. The dialog object will appear (after you refresh the tree) near the end of the list (of the children of the root) in the tree window. Look for a SimGui::Control that contains a FearGui::FGDlgBox.

Note: When editing a dialog, you will find that you cannot move or resize its components by dragging with the mouse in the main Tribes window. Dialogs are on a different plane, so to speak, so while you will be able to see it just fine, you will need to do all your editing through the tree view's property list. Clicking in the main Tribes window will only select the component behind the dialog. It's not so bad, just annoying.

Inside the FGDlgBox, you will find a FearGui::FearGuiScrollCtrl – go ahead an delete that from the tree (unless you need it). Add your component using the tree or newObject() or

getNewObject(); (NewOptsBuilder users), and set them up as you wish. When you save the dialog, you need to save the SimGui::Control it is contained in. You can use GuiPushDialog() to make it appear (it will be modal), and GuiPopDialog() to toast it when you are done. Be sure and get the data from the dialog's components first though, because when you pop it, it will disappear from memory, and then it's too late.

Despite what I set up in DialogOpts to allow you to populate a dilaog from script at runtime, you probably will not want to do this. At this time I have not figured out how to create a label (FearGui::FGSimpleText) using newObject() that has text other than "Test String". I'm working on it though.

For a good example of using a dialog this way, check out the file NewPrefsIntervals.gui and the functions NewPrefs::pushIntervals() ,NewPrefs::intervalValidate() , and NewPrefs::closeIntervalDialog().

Part 2: Object Information

Now for some object information. First I'll discuss properties, then the objects themselves, and finally the list of general-purpose functions.

Property info:

Note: Not all components/objects actually use all of the properties (sometimes they are not shown in the property list, sometimes they just don't work). You will want to experiment a little.

Name: You will want to set this if you want to be able to manipulate the component from script. This will be just about everything. Pick a unique name, with your script's name at the head, like "NewPrefs::Playmode". That way if someone else picks the same name, they won't be likely to use the same script name too and you will avoid problems. Most labels will not need anything here. If you do not name the object, NewOpts will name it for you when it reloads it. The name will be "<pagename>::noname::<number>". Annoying as hell to see, but we can't have duplicate names in the game, can we?

Owns Objects: OK, I just always check it (actually it always seems to be checked already, so I ignore it). What's up here? I can't claim to know.

Pos TopLeft (x, y): This is where the upper left corner of the component will be place relative to the upper left corner of its containing object. Two number separated by a comma, spaces optional.

Extent (width, height): Like the previous property only this one is the size (duh).

Control ID: Set to <NONE>. This is used to reference the object internally by Tribes. We will use the object's name and/or ID. Same problems as Help Tag (below).

Horizontal Sizing: I leave this one at 'Resize Left'. You can change it (does some cool things), but the information can be lost in the save, and has limited use anyway, because we aren't in a resizing container anyway.

Vertical Sizing: I leave it at 'Resize Bottom', for reasons that match Horizontal Sizing.

Visible: Do you want to be able to see it?

Delete On Lose Content: Not really sure – I just leave it checked.

Console Variable: Put the name of a console variable in here ($foo) and the variable will be set to match the state of the object when the user interacts with it. Really only useful with a checkbox.

Console Command: This is a biggie. When the user interacts with the object (presses a button, moves a slider, etc.) whatever is typed here will be executed. Use it to call a

function of yours where you deal with updates to component states. Example – "NewPrefs::onPlayModeSelect();". Don't forget the semicolon.

Alt Console Command: This is like Console Command, but will be triggered on the alternate events, like reasing a click on a button. Not used a lot, but very handy when you need it

Opaque: Not all components support this, but for those that do, it makes the difference between a transparent (and invisible) component and one you can see. If opaque is checked some components allow you to set the colors for fill, selected fill, and disabled fill.

Border: Much the same as Opaque. Again, not all objects support it.

Help Tag: Set this to <NONE>. We could use it, but it would require someone to dole out help ID's. There are only so many, and EVERY help popup needs its own. Collisions mean only the first registered under that ID will work (other popups using the same ID will show the same, wrong, help popup), plus you will get console error messages. This is why I created help dialogs.

Active: Will it respond to user activity or is it just for looks?

Message Tag: Used internally by Tribes. I haven't devined how to use it, but it would have the same limitations as Help Tag, if not more. Set to <NONE>.

FontName Tag: Leave this and its next two siblings alone. You can get some cool fonts, but when you save and reload, it'll revert back to the default anyway. Bummer.

Text tag: If there is a label in the list appropriate for your use, use it. Most of the time there isn't. Same problem as Help Tag – set to <NONE>.

Text: If Text Tag is set to none (blank), you can enter a label here. Limited usefulness except with label objects. For instance, you can set it in a combobox, but you can only set one, and when you load in more choices from script, the one you enter here is toast.

Is an ON/OFF Switch: Use this for checkboxes, otherwise they will come unchecked every time. In general: buttons will be ON when clicked, and OFF when clicked again, so the first click calls console command, the second will call alt. Cons. Command.

Radio Set: I used this once in SnipeHud, but it has the same setup and problems as Help Tag. I probably should have done it in script. A radio button group manager is slated for DynOpts, but for now, just use Console Command to set off this type of behavior in script.

Lo-Res Position: Who uses low res? Seriously, I don't know about this one.

ACTIVE: This is different from Active, above. It's all caps and indicates whether to draw the component like it has been clicked on but not released yet. More importantly, it defines whether a checkbox should start out checked.

Mirror Console Var: This one rocks. If this is a checkbox and you have Console Variable, above, filled in correctly, the checkbox and variable will always be in sync. Checked == TRUE and unchecked == FALSE. I used the hell out of these two.

Alignment: No clue. This one never made any noticeable difference for me. Let me know if you learn something new here.

Text V Pos Delta: You can use this to offset the text label vertically by number of pixels. I don't see the need, but you might find one.

BMP Root Name: Some components, like buttons, can have three images: normal, selected, and inactive. By entering the right name here, you component will have them too. I haven't used it because I couldn't figure it out for my own bitmaps, and I haven't really needed it. Let me know if you learn something new here.

Min Value (float): Sets the low end of the scale's value for a slider. Problem was it acted flakey, when it worked at all. I usually left this and the next two alone. That gives you values from 0.0 to 1.0 (continuous) from the slider, and I just do the math conversions to the range I really need (and back) in script. We really don't need to save cpu cycles in the options gui (a slider on the play gui?!?) and this way worked reliably.

Max Value (float): See Min Value.

Stepping Value: How many stops on the slider do you want? Same problem as Min Value though.

Numeric field only: This is used by the FearGui::TestEdit (an editable text field). Will allow only numeric characters to be typed in if checked. Oddly enough, numeric seems to be defined as digits and the negative sign, but decimal point is not allowed. Bah!

Max Str Len: Use this to limit the number of chars that may be entered into a FearGui::TestEdit. Maximum usable value is 255.

Bitmap Array Tag: In a scroll control, this determines the images used for the scrollbars themselves. Leave it at IDBPA_SCROLL2_SHELL unless you really like ugly scrollbars.

Handle Arrow Keys: I assume this means the scroolbar will respond to the arrow keys on the keyboard. I just leave it checked and have not tested it.

Constant Sized Thumb: Determines whether the scrollbar thumb is a constant size or varies in size to indicate the percentage of the total area currently displayed. I personally can't think of a reason to check this.

Horizontal Scrollbar: Determines whether the scrollbar is always on, always off, or on only when the content exceeds the size of the viewing area.

Vertical Scrollbar: Same as the Horizontal Scrollbar property, except this determines behavior for the vertical scrollbar.

Header Dimensions: Unknown purpose, but I haven't needed it.

Border width: The width of the border around the component, in pixels (more or less).

Action Map: When setting up a CFGButton, this determines which action map to add the keybinding to.

Make Action: With the CFGButton, used to specify the IDACTION to associate with the make action of the bound key.

Make Value: With the CFGButton, the value to pass with the make IDACTION.

Break Action: With the CFGButton, used to specify the IDACTION to associate with the break action of the bound key.

Break Value: With the CFGButton, the value to pass with the break IDACTION.

Action: Unknown.

There are more properties for other components, but that pretty much covers what you will need for options gui's.

Gui-Classes:

CFGButton:

Use a FearGui::CFGButton. If you want the bound key to trigger an IDACTION (the equivalent of a call to bindAction()), set the Make Action, Make Value, Break Action and Break Value properties accordingly. If you are wanting the equivalent of a bindCommand() call, set Make Action and Break Action to <NONE>, set Make Value and Break Value to 0 (zero), set Console Command to the name of the function you want called on key make (complete with arguments and the semicolon), and Alt Console Command to the name of the function you want called on key break (also complete with arguments and the semicolon). Either way you go, set Text to the text you want for a label, and make sure Message Tag is set to IDCTG_OPTS_CTRL_CFG_SELECT.
CFGButtons won't work outside the Options-Gui. There is as far as I know only one ugly way to get around this, but you probably won't need to create them anywhere else.

Important: The text label you use MUST be unique among all CFGButtons. The alert to the user that a CFGButton has been unbound (due to defining the same key/button in another CFGButton) is dependent on these labels being unique.

Label:

Use a FearGui::FGSimpleText. It will resize automatically depending on the text it displays. Set the text with 'Text'; if you check 'Active', the text will be white, otherwise it will be beige. To set the text from script, use:
Control::setValue(<objname>, <text>);
To get the text, use:
Control::getValue(<objname>);

Button:

Use a FearGui::FGUniversalButton. This one will be transparent if you don't supply an image. Using the in-built images is limiting, so I've been trying a few ideas, but for now, I just put an invisible button over the top of an appropriate white label. Maybe even add the button to a frame, so you have a nice border for it too. You can find a list of the in-built imageTags (BTN_Tags) at www.planetstarsiege.com/btnlist.html.
ConsoleCommand is executed on click, and Alt Console Command on release. Set it visible (not opaque) and Active, but not ACTIVE (confusing having two properties the same name, huh?).

Checkbox:

Use a FearGui::FGUniversalButton. This is a specialized button. Check Is an ON/OFF Button, and make sure BMP Root Name (the text box, not the combobox) is set to BTN_CheckBox (the underscore won't show, don't worry if you can't see it). If you set Console Variable to a global (boolean) variable name and check Mirror Console Var, the checkbox will always match the variable, automatically (checked == true, unchecked == false), even when the user changes the checkbox's state – very cool and no script needed at all for that. If you want to have more control, Console Command's contents are exec'ed on check, and Alt Console Command's on uncheck. You could set up id tags for radio button behavior, but that's really problematic as explained above (in Help Tag property). I suggest going with full control of the check/uncheck and implementing your own radio behavior. DynOpts should provide that framework for you later. Oh yeah, set and get the state of the checkbox with
Control::setValue(<objname>, <boolean>);
Control::getValue(<objname>);

Slider:

Use a FearGui::FGSlider. Whatever function you set in Console Command will get called every time the slider is adjusted. Use
Control::setValue(<objname>, <value>);
to set the slider's position (range of 0.0 to 1.0 by default) and use
Control::getValue(<objname>);
To read it back after the user changes it. Then you can multiply and add, etc. to convert that to the range you really want. I like to put a labal above the slider that gives the current value in brackets – I hate making slider adjustments without knowing exactly what I'm setting it to. Also, the wider the slider, the finer the usable increments, so if you are using a range of, say, 1 to 1000, you'll want the slider as wide as possible. Another function I found to be very usefull is
FGSlider::setDiscretePositions();
which will allow you to set let Tribes make it a 'discrete' slider.

Combobox:

Use a FearGui::FGStandardComboBox. When it's first showed (at initialization of NewOpts in most cases) do a:
FGCombo::clear(<objname>);
Then load your list in by doing
FGCombo::addEntry(<objname>, <string entry>, <index>);
repeatedly, where <index> is a number. Just start at zero and increment that one. Keep track of entry/index pairs though, cause you use
FGCombo::setSelected(<objname>, <index>);
to set the selection, but you use
FGCombo::getSelected(<objname>);
to get the index number of the selected entry. Alternatively, you could use
FGCombo::getSelectedText(<objname>);
to get the text of the selection. The entries will be alphabetized automatically and I haven't found a way to turn that off. Console Command's code gets executed whenever the user makes a selection, even if they re-chose the previous selection.

Textfield:

Use a FearGui::TestEdit. Checking Numeric Field Only causes the textfield to only accept numeric characters. Interestingly, digits and the negative sign are considered numeric, but the decimal point is not (Zear scratches his head in confusion)! Max Str Len can be set to an integer value to limit the number of chars the textfield will accept (maximum is 255). If you supply a variable in Console Variable, the variable will match what is entered. Supplying a function to Console Command will result in the function being called EVERY time the textfield is updated, clicked in, or typed in. This is handy because the edits are not actually mirrored to the textfield itself until after the Console Command is called, allowing you to filter the text. Just get the text at that point by using

Control::getText(<objname>);

filter it removing or changing text you consider invalid, the send the modified text back using

Control::setText(<objname>, <text>);

The user will never even see the intermediate text – if they hit the x key and you edit out the x this way, it will seem as though the text field doesn't accept the x char at all. This is good for validating the info so as not to cause a problem when your script tries to use it.

Important: If you try to validate a FearGui::TestEdit while it is on your options page, you are almost *guaranteed* a stack fault. I have no idea why. The solution is to put this kind of stuff in a dialog. You will be able to validate safely and you can force the DONE button to be inactive until the FearGui::TestEdit contains valid text, making the user enter only information in the form you want it before continuing.

Formatted Text:

Use a FearGuiFormattedText. Notice no colons in that object's name. Weird huh? These are display only. The valid tags that can be embedded in the text (that I know of) are

<f0>	brown text
<f1>	beige text
<f2>	white text
<jl>	left justify
<jc>	center justify
<jr>	right justify
<bx,y:bitmap>	display a bitmap
<l#>	indent # columns from left
<r#>	indent # columns from right
\n	carriage return
\t	tab

To set the 'text' use:
Control::setValue(<objname>, <text>);
You can not get the text back using getValue();.

Textlist:

Use a FearGui::FGTextList. This is essentially the same as the Combobox, without the popup thing – it is 'popped up' all the time. Use
TextList::clear(<objname>);
to clear it. Use
TextList::addLine(<objname>, <text>);

to add lines to the list, and
Control::getValue(<objname>);
will return the currently selected text. I'm not sure how to set the selection (there is no obvious function). And last:
FGTextList::sort(<objname>);
Will sort your textlist in alfabetical order. There is also a Don't Allow Duplicates checkbox in the property list for this one – does just what it says.

Blank panel:

Use a SimGui::Control. This is so simple – set the position and size, play with Opaque, Border and the associated color specifying properties, and well, that's about it. A useful feature of this one is that objects placed inside will not show any portion that falls outside the rectangle defined by the panel. I'm still coming up with devious uses for this one.

Scrollpanel:

Use a FearGui::FearGuiScrollCtrl. This one is an odd duck, because you need the SimGui::ScrollContentCtrl inside it. As a matter of fact, if you create the ScrollCtrl using newObject(), the ContentCtrl will be added automatically. Set the Vertical and Horizontal Scrollbar properties the way you want and then drop a SimGui::Control into the ScrollContentCtrl (or a Textlist, or a FearGuiFormattedText, or whatever). If the component you drop in is larger than the FearGuiScrollCtrl, you will be able to scroll it around. I covered Bitmap Array Tag, Handle Arrow Keys and Constant Sized Thumb in the properties, above. I don't have any information on Header Dimensions – I haven't got to experiment with that yet. I'm sure I've either missed something cool or it doesn't work.

Frame:

Use a SimGui::Control, above if you want a one pixel frame, but if you want that cool green thin-line/thick-line frame you see in Tribes, use a FearGui::FearGuiBox. This thing works pretty much like the SimGui::Control, except it has the cooler border. 'Nuff said.

I will continue with some other classes that are not very usefull for option pages, but may prove very usefull when you're gui-editing in general.

ProgressBar:

Use a SimGui::ProgressCtrl – it looks like the ones you see when Tribes is scanning servers or loading the game. It has a range from 0 till 1, and you can set/get the values using:
Control::setValue(<objname>, <value>);
Control::getValue(<objname>);

GameView (The 3D view):

Use a SimGui::TSControl – this one is pretty easy really. But before you can use it to actually play the game, make sure you add crosshairs etc. It's pretty funny to mess with this one, but the use in CommandHUD is the best we will ever think of I guess.

BitMap-Control:

Use a SimGui::BitmapCtrl. It allows you to set images Tribes provides. I can't remember if it will also allow you to set your own, I'll check it out once. As far as I know there are no functions which let you control its contents or behaviour.

General Purpose Functions:

Here is a list of generic functions you may find useful. There are a lot more, but they get pretty esoteric, and I don't get a lot of them yet.

newObject(<name>, <class>, <x>, <y>, <w>, <h>, <convar>, <concmd>**);**
This can vary with some of the more unusual objects, but this is the basic form. I include this mostly because it is so basic, and sometimes I just want to create the object myself instead of hunting one up. The new Object will appear at or near the end of the list of children of the root object of the tree. You can then (usually) drag it to the place in the tree where you want it.

<name>	can be empty quotes ("") if you don't care about the name
<class>	the object type to create – I specified them in the last section.
<x>, <y>	position of the top left corner relative to the top left corner of the containing object. Make it negative if you want, but you will not see some or all of it in most cases due to masking.
<w>, <h>	width & height. No negatives, OK?
<convar>	puts this string into the Console Variable property field
<concmd>	puts this string into the Console Command property field

If you want to use more parameters than name & class it seems you have to specify all of the rest, before you'll get what you want (at least, that is if I remember correct).

deleteObject(<objID>**);**
<objID>: the object ID of the object you wish to delete. This is prone to crashing under some circumstances, so save first!

addToSet(<set>, <obj>**);**
This is how you nest objects from script. It will move the object <obj>.

<set>	the object ID of the set (a set is any object that can be a container) to add the object to
<obj>	the ID of the object to be added to the set

Control::getActive(*<objectName>***);**
<objID>   the object ID of the object you want the state of

Control::getText(*<objectName >***);**
<objID>   the object ID of the object you want the text of

Control::getValue(*<objectName >***);**
<objID>   the object ID of the object you want the value of

Control::getVisible(*<objectName >***);**
<objID>   the object ID of the object you want to determine visibility for

Control::performClick(*<objectName >***);**
Control::performClick(*<objectName >, <val>***);**
Couldn't coax this one into giving me anything. Let me know if you figure it out.

Control::setActive(*<objectName >, <boolean>***);**
<objID>   the object ID of the object you want to set the state for
<boolean>   TRUE or FALSE

Control::setText(*<objectName >, <text>***);**
<objID>   the object ID of the object you want set the text for
<text>   the text the object should display

Control::setValue(*<objectName >, <val>***);**
<objID>   the object ID of the object you want to set the value for
<val>   the value to assign to this object; varies as to type

Control::setVisible(*<objectName >, <val>***);**
<objID>   the object ID of the object you want to set the visibility state for
<boolean>   TRUE or FALSE

Group::getObject(*<set>, <index>***);**
Returns the Nth object from a set (container object). Returns –1 if the requested object doesn't exist.
<set>   the ID of the container you are looking in
<index>   the zero-based index at which you expect to find an object

Group::objectCount(*<set>***);**
Returns the number of objects in a set (container object).
<set>   the ID of the container you are looking in

Object::getName(*<objID>***);**
Returns the name of the specified object.
<objID>   the object ID of the object you want to retrieve the name of

nameToId(*<objname>***);**
Get the object ID of the object with the specified name. I have no idea what would happen if there were multiple objects with the same name. Let's assume that would be bad.
<objname> the object name of the object you want to retrieve the ID of

getGroup(*<objID>***);**
Gets the ID of the parent, set or container this object is contained in.
<objID>   the object ID of the object you want to get the parent of

setButtonHelp(<*WindowName>, <ButtonName>, <HelpString*>**);**
OK, I wanted to use this, but I can't figure out what <WindowName> should be. It isn't MainWindow like everywhere else. It isn't the name of the container the object is in, nor did it seem to be a Control ID. I'm stumped, but if anyone makes a breakthru here, I'll surely add this capablity to NewOpts.

NewOptsBuilder
will provide more usefull functions that I will not descibe completely over here. But I will mention some to give you an impression.
howToReach(<objID>);
is a function to show the complete tree from the root to an object, walking the tree down and giving the result in the console. Also provided are functions like
getNewObject();
an easier version of newObject, which will take over setting default properties
getObjectIndexSub();
acting as Group::getObject, but walking down the complete group, including subobjects,
getTotalSubObjects();
extends Group::objectCount in a way you'll understand,
getObjectID();
acting like nameToID, but will also work to find names within the NewOptsFrame – nameToID will *not* find those!
And a lot more!