

Can your UI change colors like chameleon?

Vikrant Patil



Whats in?

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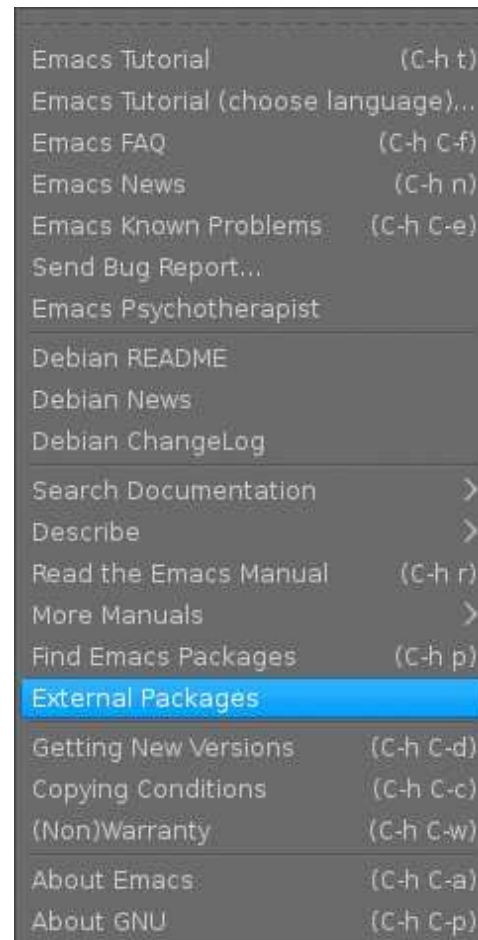
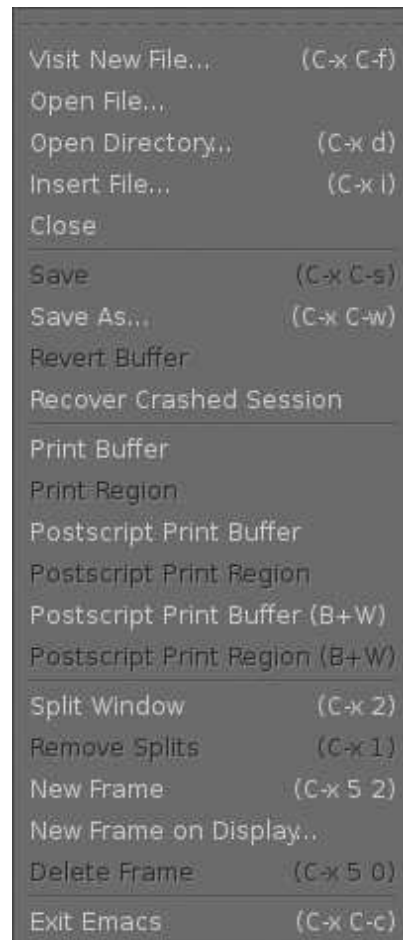
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- At Strand we have build various products on underlying data analysis and visualization platform, avadis(TM). We usually need different wrappers of UI in different products. Although many of them have same underlying core functionality.

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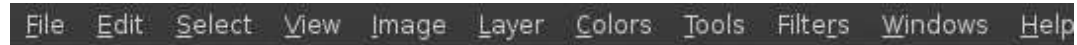
- The talk isn't really about changing colors! But its about rapid UI development.
- At Strand we have build various products on underlying data analysis and visualization platform, avadis(TM). We usually need different wrappers of UI in different products. Although many of them have same underlying core functionality.
- I would like to share tips and tricks that we use at Strand to do rapid UI development.

Patterns in User Interface

Patterns in User Interface: Menus



Patterns in User Interface: Toolbar/Menubar



Patterns in User Interface: Parameters

Connection name:

Connect automatically

System setting

Wireless Wireless Security IPv4 Settings

SSID:

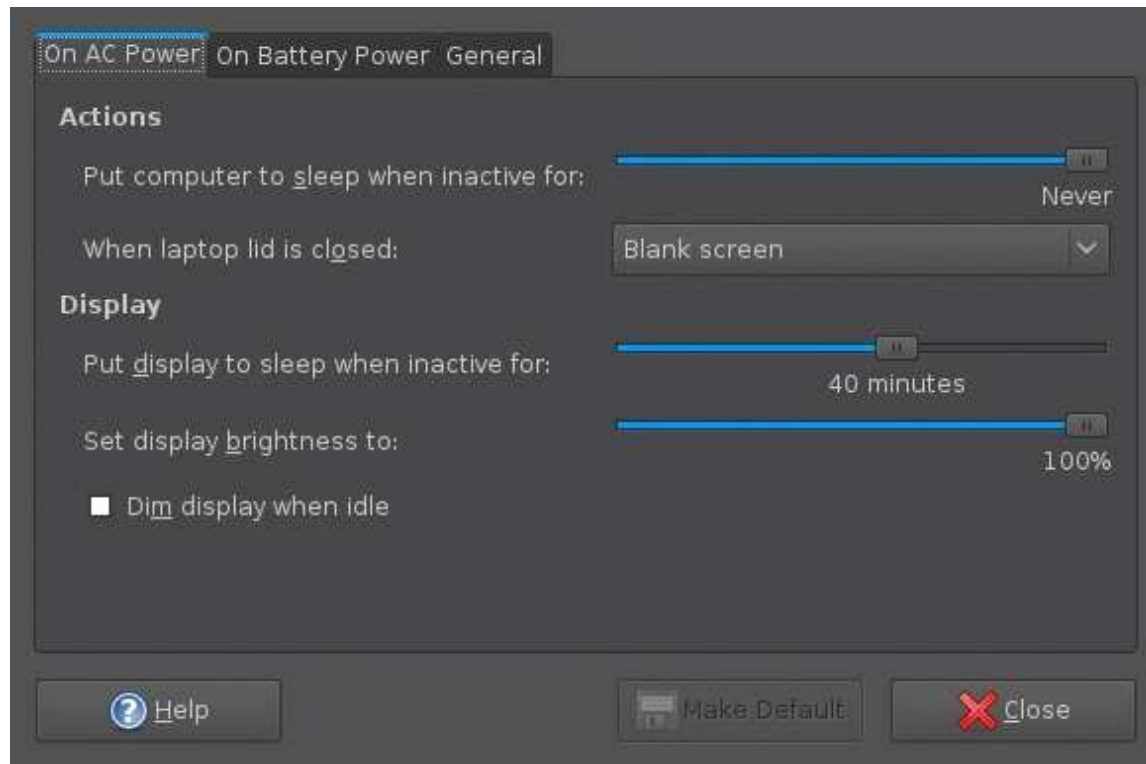
Mode:

BSSID:

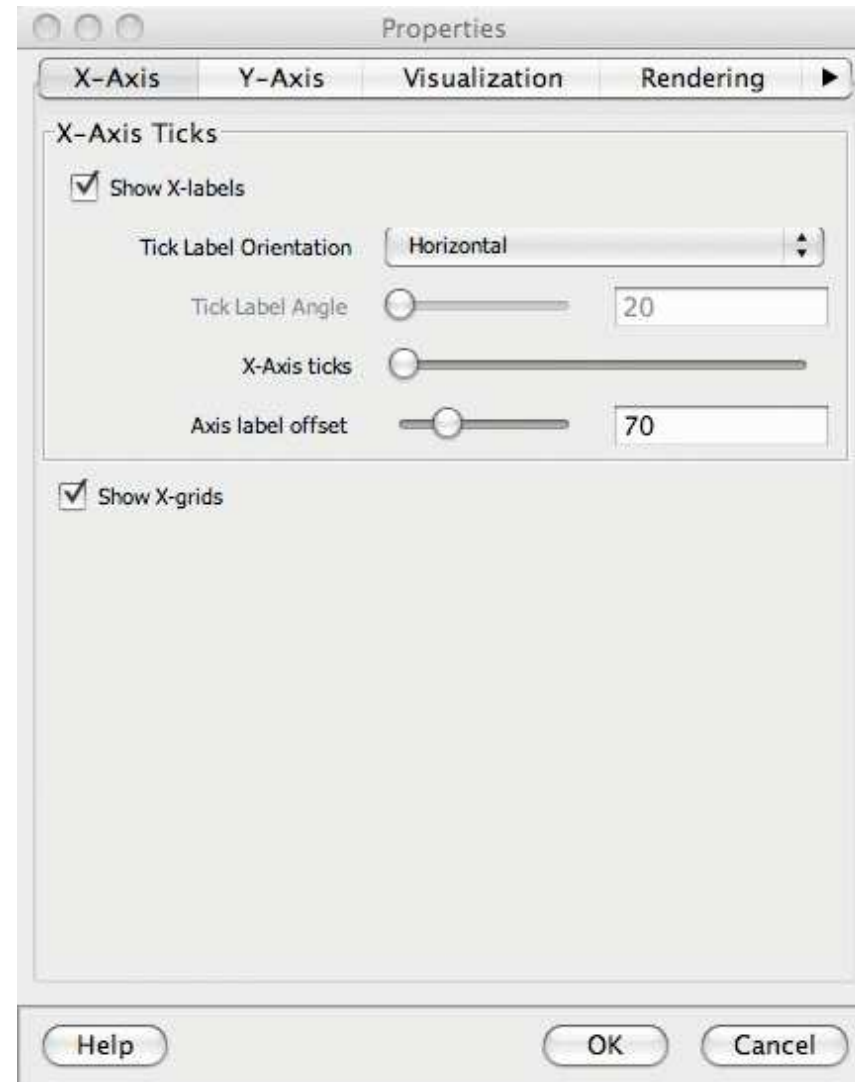
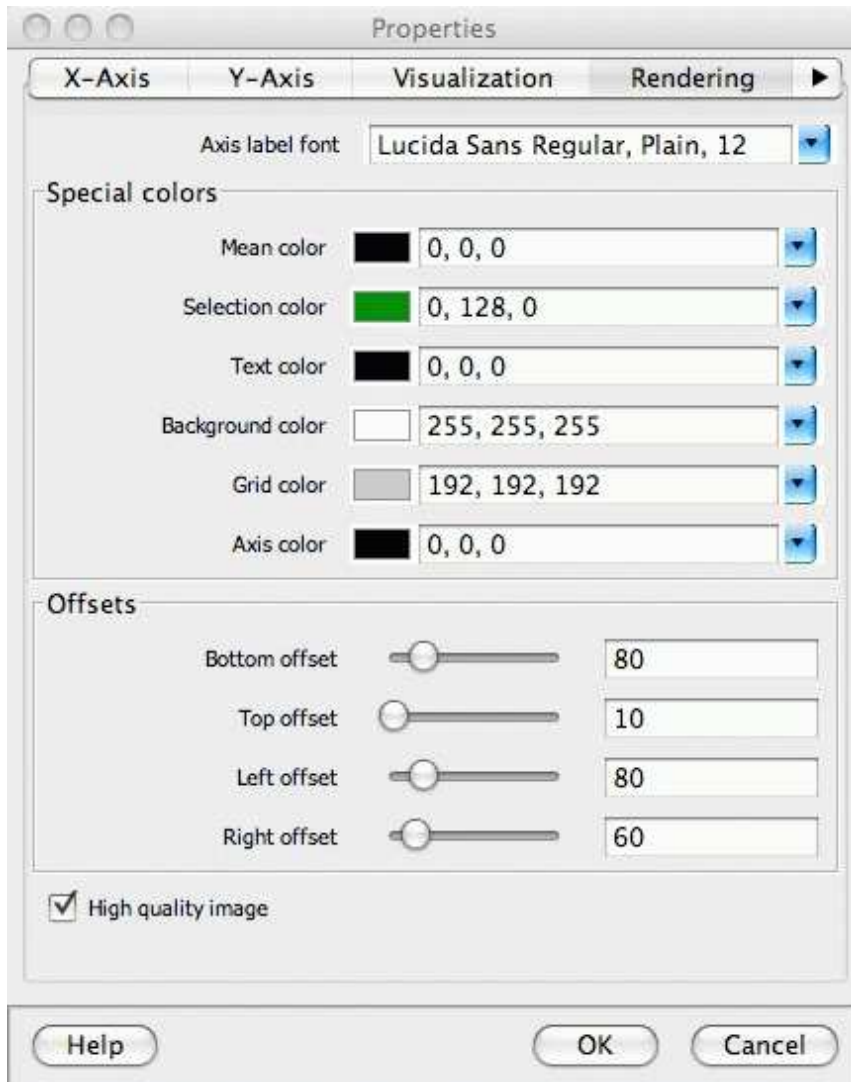
MAC address:

MTU: bytes

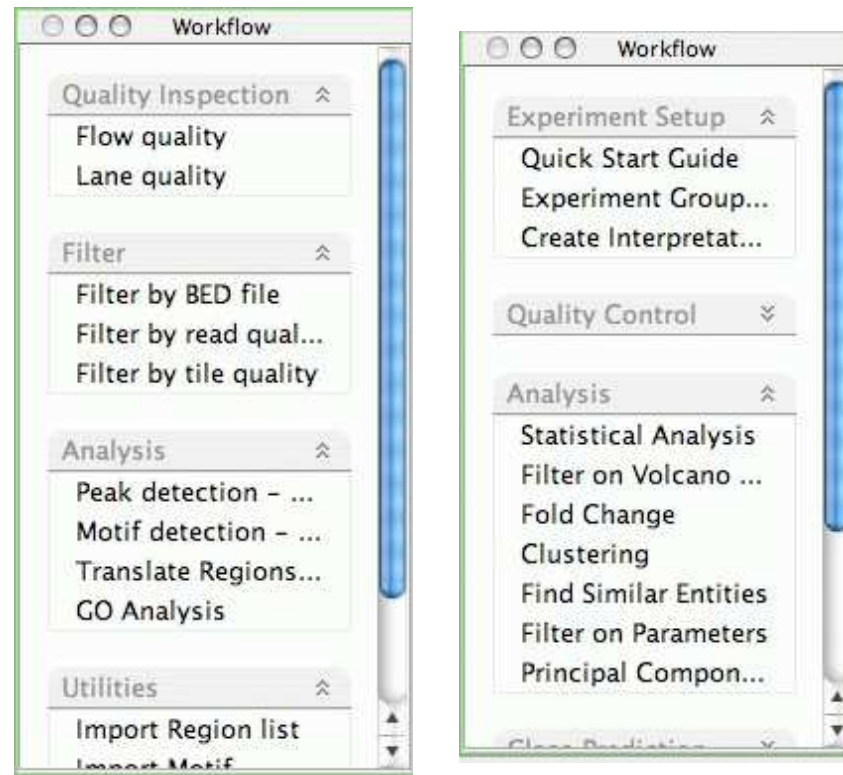
Patterns in User Interface: Parameters



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Patterns in User Interface: Custom



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- Menus/Menubars
- Commandbars
- Parameters input/output
 - string parameters
 - numeric parameters
 - logical/boolean parameters/checkbox
 - Dropdown menus etc.

Patterns in User Interface

Find most commonly used components. Some of them are as listed below

- Menus/Menubars
- Commandbars
- Parameters input/output
 - string parameters
 - numeric parameters
 - logical/boolean parameters/checkbox
 - Dropdown menus etc.
- Other custom UI components

Automating the patterns

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- Let the core classes be driven by **specifications** to create the actual UI item.

These two things will allow us automated UI creation. To generate any UI with new specifications, We need not create the the UI item using basic swing component. What we need is new specification file or whatever way of specifying specifications.

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- Actions of every menu item

Getting **Name** and list of **menu-items** is easy job. It can be taken from any static file. Taking **Actions** from **specification** file is little tricky! Jython being a dynamic language can help here.

Automating the patterns : avadis(TM) Menu

Let us try to create a new menu `Python` with only one menu item in it, `Hello Pycon`



The `specification` file for this menu in avadis(TM) would look like ...

Automating the patterns : Parameters

`specification` for various parameters

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`String`

- Description
- Default value

Automating the patterns : Parameters

specification for various parameters

String

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- Default value

Drop down menu

- Description
- List of items in drop down
- Default value/selection

Automating the patterns : Parameters

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Automating the patterns : Parameters

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Checkbox

- Description
- Default value

Automating the patterns : Parameters

specification for various parameters

Checkbox

- Description
- Default value

Slider

- Maximum value of slider
- Minimum value of slider
- Default value

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- Parameter dialogs using Plugins
- Pycon profile editing form
 - From script editor
 - Add it to menu
- More magic using Jython

God and Devil

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- You can do tons of wizardry runtime.

Bad

- There is a chance that your system gets flooded with orphan code snippets in plugins or specification files
- If action code goes in plugins, syntax errors show up only in runtime

Thank you!