Viewports

By default, a viewport which fills the whole screen contains all the elements defined in the (.wps) file. The elements in this viewport are displayed in the same background/foreground colour and the text is rendered in the same font as in the main menu. These three definitions are loaded by the theme (.cfg) file (see section 9 (page 63) and section 12.3.2 (page 133)). To change this behaviour a custom viewport has to be defined. A viewport is a rectangular window on the screen with its own foreground/background colour. This window also has variable dimensions. To determine the values assigned to a specific viewport, a defining `%V|...` line (will be explained later in this section) has to be present in the `.wps` file. All elements placed before the first line defining a viewport are displayed in the default viewport. Elements defined after a viewport declaration are drawn within the dimensions specified in and at the coordinates designated by that defining line. Loading images (see Appendix section B.14 (page 144)) should be done within the default viewport. Viewports sharing the same coordinates and dimensions cannot be displayed at the same time. Viewports cannot be layered *transparently* over one another. Subsequent viewport definitions will be drawn over any other viewports already drawn onto that area of the screen. Defining a viewport with the `%V|...` line will display it constantly.

Viewport Declaration Syntax

`%V`|x|y|[width]|[height]|[font]|[fgshade]|[bgshade]|

- 'fgshade' and bgshade are numbers in the range '0' (= black) to '3' (= white).
- 'font' is a number - '0' is the built-in system font, '1' is the user-selected font.
- Only the coordinates *have* to be specified. Leaving the other definitions blank will make them fall back to their their default values.

  Note: The correct amount of |'s with -'s in the blanks fields is still needed in any case.

EXAMPLE

```
%V|12|20|-|-|1|-|-|
%sThis viewport is diplayed in any case. It has the size of your screen - 12
%spx in width and - 20 px in height. The lines will scroll, if this text
%sdoes not fit your screen.
```

Conditional Viewports

Any viewport can be displayed conditionally.

- `%Vl|'identifier'|...|` This tag preloads a viewport for later display. 'identifier' is a single lowercase letter (a-z) and the '...' parameters use the same logic as the usual %V tag explained above.

- `%Vd'identifier'` Display the 'identifier' viewport.

The identifiers for different viewports can be used mutliple times.

EXAMPLE

```
%?C<%Vda|%Vdb>
%Vl|a|10|10|50|50|-|-|-|
%Cl|0|0|50|50|
%C
%Vl|a|0|70|70|14|1|-|-|
%s%acThere you have it: Album art.
%Vl|b|20|14|50|14|1|2|-|
%t1%acWarning:;%t.1
%Vl|b|20|30|50|50|1|-|-|
%sNo album art found
%scheck your filenames.
```

This example checks for album art. Album art will be displayed in viewport 'a', if it is found. Otherwise a bright flashing warning will be displayed in viewport 'b'. Using an individual identifier for each viewport is not necessary.

Note: The tag to display conditional viewports must be coded in the `.wps` file *before* the tag to preload conditional viewports.

Conditional Tags

If/else: Syntax: `%?xx<true|false>`

If the tag specified by "`xx`" has a value, the text between the "<" and the "|" is displayed (the true part), else the text between the "|" and the ">" is displayed (the false part). The else part is optional, so the "|" does not have to be specified if no else part is desired. The conditionals nest, so the text in the if and else part can contain all `%` commands, including conditionals.

Enumerations: Syntax: `%?xx<alt1|alt2|alt3|...|else>`

For tags with multiple values, like Play status, the conditional can hold a list of alternatives, one for each value the tag can have. Example enumeration:

EXAMPLE

```
%?mp<Stop|%Play|Pause|Ffwd|Rew>
```

The last else part is optional, and will be displayed if the tag has no value. The WPS parser will always display the last part if the tag has no value, or if the list of alternatives is too short.

Next Song Info

You can display information about the next song – the song that is about to play after the one currently playing (unless you change the plan).

If you use the upper-case versions of the three tags: `F`, `I` and `D`, they will instead refer to the next song instead of the current one. Example: `%Ig` is the genre name used in

played. The default WPS is a relatively simple screen displaying Track name, Artist, Album etc. in the default font as a purely text based layout. There are a number of WPS files included in Rockbox, and you can load one of these at any time by selecting it in SETTINGS → THEME SETTINGS → WHILE PLAYING SCREEN.

Note: "Playing" a `.wps` from the FILE BROWSER has the same effect.

File Location: Custom WPS files may be located anywhere on the drive. The only restriction is that they must end in `.wps`. When you "play" a `.wps` file, it will be used for future WPS screens, and if the "played" `.wps` file is located in the `/.rockbox/wps` directory, it will be remembered and used after reboot. The name of the `.wps` file must be no more than 24 characters long for it to be remembered.

11.2.2 WPS – Build Your Own

Quite simply, enter the WPS code in your favourite text editor, Notepad on Windows works fine. When you save it, instead of saving it as a `.txt` file, save it as a `.wps` file. Example: Instead of `Rockbox.txt`, save the file as `Rockbox.wps`. To make sure non english characters display correctly in your WPS you must save the .wps file with UTF-8 character encoding. This can be done in most editors, for example Notepad in Windows 2000 or XP (but not in 9x/ME) can do this. See appendix section B (page 134) for all the tags that are available.

- All characters not preceded by % are displayed as typed.
- Lines beginning with # are comments and will be ignored.

Note: Keep in mind that your player resolution is 160x128x1 (with the last number giving the colour depth in bits) when designing your own WPS, or if you use a WPS designed for another target.

Viewports

By default, a viewport which fills the whole screen contains all the elements defined in the (.wps) file. The elements in this viewport are displayed in the same background/foreground colour and the text is rendered in the same font as in the main menu. These three definitions are loaded by the theme (.cfg) file (see section 9 (page 64) and section 11.3.2 (page 129)). To change this behaviour a custom viewport has to be defined. A viewport is a rectangular window on the screen with its own foreground/background colour. This window also has variable dimensions. To determine the values assigned to a specific viewport, a defining `%V|...` line (will be explained later in this section) has to be present in the `.wps` file. All elements placed before the first line defining a viewport are displayed in the default viewport. Elements defined after a viewport declaration are drawn within the dimensions specified in and at the coordinates designated by that defining line. Loading images (see Appendix section B.14 (page 139)) should be done

within the default viewport. Viewports sharing the same coordinates and dimensions cannot be displayed at the same time. Viewports cannot be layered *transparently* over one another. Subsequent viewport definitions will be drawn over any other viewports already drawn onto that area of the screen. Defining a viewport with the `%V|...` line will display it constantly.

Viewport Declaration Syntax

`%V`|x|y|[width]|[height]|[font]|

- 'font' is a number - '0' is the built-in system font, '1' is the user-selected font.
- Only the coordinates *have* to be specified. Leaving the other definitions blank will make them fall back to their their default values.

  Note: The correct amount of |'s with -'s in the blanks fields is still needed in any case.

Example

```
%V|12|20|-|-|1|
%sThis viewport is diplayed in any case. It has the size of your screen - 12
%spx in width and - 20 px in height. The lines will scroll, if this text
%sdoes not fit your screen.
```

Viewport definition	Default value
width/height	remaining part of screen
font	user defined

Conditional Viewports

Any viewport can be displayed conditionally.

- `%Vl|'identifier'|...|` This tag preloads a viewport for later display. 'identifier' is a single lowercase letter (a-z) and the '...' parameters use the same logic as the usual %V tag explained above.
- `%Vd'identifier'` Display the 'identifier' viewport.

The identifiers for different viewports can be used mutliple times.

Example

```
%?mh<%Vda|%Vdb>
%Vl|a|10|10|50|50|-|
%sYou could now show a hold icon using the %%xl and %%xd tags.
%Vl|a|0|70|70|14|1|
%s%acYour DAP is locked.
%Vl|b|20|14|50|14|1|
%t1%acWarning:;%t.1
%Vl|b|20|30|50|50|0|
%sYou've unlocked your player.
```

11.2.2 WPS – Build Your Own

Quite simply, enter the WPS code in your favourite text editor, Notepad on Windows works fine. When you save it, instead of saving it as a `.txt` file, save it as a `.wps` file. Example: Instead of `Rockbox.txt`, save the file as `Rockbox.wps`. To make sure non english characters display correctly in your WPS you must save the .wps file with UTF-8 character encoding. This can be done in most editors, for example Notepad in Windows 2000 or XP (but not in 9x/ME) can do this. See appendix section B (page 156) for all the tags that are available.

- All characters not preceded by % are displayed as typed.
- Lines beginning with # are comments and will be ignored.

Note: Keep in mind that your player resolution is 240x320x16 (with the last number giving the colour depth in bits) when designing your own WPS, or if you use a WPS designed for another target.

Viewports

By default, a viewport which fills the whole screen contains all the elements defined in the (.wps) file. The elements in this viewport are displayed in the same background/foreground colour and the text is rendered in the same font as in the main menu. These three definitions are loaded by the theme (.cfg) file (see section 9 (page 61) and section 11.3.2 (page 150)). To change this behaviour a custom viewport has to be defined. A viewport is a rectangular window on the screen with its own foreground/background colour. This window also has variable dimensions. To determine the values assigned to a specific viewport, a defining `%V|...` line (will be explained later in this section) has to be present in the `.wps` file. All elements placed before the first line defining a viewport are displayed in the default viewport. Elements defined after a viewport declaration are drawn within the dimensions specified in and at the coordinates designated by that defining line. Loading images (see Appendix section B.14 (page 161)) should be done within the default viewport. Viewports sharing the same coordinates and dimensions cannot be displayed at the same time. Viewports cannot be layered *transparently* over one another. Subsequent viewport definitions will be drawn over any other viewports already drawn onto that area of the screen. Defining a viewport with the `%V|...` line will display it constantly.

Viewport Declaration Syntax

`%V`|x|y|[width]|[height]|[font]|[fgcolor]|[bgcolor]|

- 'fgcolor' and bgcolor are 6-digit RGB888 colours - e.g. FF00FF.
- 'font' is a number - '0' is the built-in system font, '1' is the user-selected font.

- Only the coordinates *have* to be specified. Leaving the other definitions blank will make them fall back to their their default values.

  Note: The correct amount of |'s with -'s in the blanks fields is still needed in any case.

Example

```
%V|12|20|-|-|1|-|-|
%sThis viewport is diplayed in any case. It has the size of your screen - 12
%spx in width and - 20 px in height. The lines will scroll, if this text
%sdoes not fit your screen.
```

Viewport definition	Default value
width/height	remaining part of screen
font	user defined
forground/background colour	defined by theme

Conditional Viewports

Any viewport can be displayed conditionally.

- `%Vl|'identifier'|...|` This tag preloads a viewport for later display. 'identifier' is a single lowercase letter (a-z) and the '...' parameters use the same logic as the usual %V tag explained above.
- `%Vd'identifier'` Display the 'identifier' viewport.

The identifiers for different viewports can be used mutliple times.

Example

```
%?C<%Vda|%Vdb>
%Vl|a|10|10|50|50|-|-|-|
%Cl|0|0|50|50|
%C
%Vl|a|0|70|70|14|1|-|-|
%s%acThere you have it: Album art.
%Vl|b|20|14|50|14|1|ff0000|ffffff|
%t1%acWarning:;%t.1
%Vl|b|20|30|50|50|1|000000|ffffff|
%sNo album art found
%scheck your filenames.
```

This example checks for album art. Album art will be displayed in viewport 'a', if it is found. Otherwise a red flashing warning will be displayed in viewport 'b'. Using an individual identifier for each viewport is not necessary.
Note: The tag to display conditional viewports must be coded in the `.wps` file *before* the tag to preload conditional viewports.