

Commando Data File Format

Introduction

Commando is a command line tool for displaying a graphical user interface for other command line tools. Commando parses the first argument to itself to look up the interface definition file for a given tool. Here's how it works, using `ls` as an example. The user types:

```
cmdo ls
```

Commando then looks for the `ls` data file "`ls.cmdo`" in one of two locations¹:

```
/Library/Preferences/com.ShanesGames.Commando/  
~/Library/Preferences/com.ShanesGames.Commando/
```

If Commando finds the data file, it parses it and displays the graphical interface it defines. If no file is found an error message is written out and Commando exits.

The File Format

The file format for Command data files is straightforward but has a few small tricky bits. This document specifies how to format a file and has some tips about getting the file right.

The basis format is defined below. All items in `<>` are substituted as defined below. The items marked by `Repeating/End Repeating` can have multiple entries. These not used in the file. They only exist here to show repeating areas.

```
<Prototype line>  
<Format>  
<Tool Summary>  
<Credit line>  
Repeating  
    <pane Name>  
    Repeating  
        <Option Data>  
    end repeating  
    </pane>  
End Repeating
```

¹ The `/Library` path is global for all users of the machine. The `~/Library` path is only accessible for a single user.

Definitions

<Prototype line> This is the command name followed by substitution parameters (tags). By convention, all top level tags are of the format [N] where N is any string. This is usually a number for simplicity, but can be any character string. Remember, you will need to use this string later in the file so make it simple.

Example: `ls [1] [2]`

<Format> This is the file format version. This versions is current 1. The line will read: `<version 1>`

<Tool Summary> This is a short summary of what this tools is used for.

<Credit Line> This is free form text for your credit. This can be left blank. No obscenities please. Maximum length is 1024 characters, but fewer will actually display.

<pane Name> "Name" may be any string. "Name" will be used as the title for the tab in the Commando window where these grouped options appear.

</pane> End of the <pane Name> definition

<Option Data> This is the most highly formatted data type in the file. It has 5 fields, delimited by a vertical bar (|). The format is:

```
Tag|Type|Substitution Text|Option Display|Help Text
```

Option Data Detailed

Here are a few example lines of Option Data:

```
6|S|-L|-L Interactive mode|Non-logging mode. Exit if not a terminal.  
1|R1|-cn|-cn Non-event mode (default)|Calculate CPU usage since previous  
<user>|T|0|username of uid:|This can be a username or uid (user id).
```

Field 1 This field is the substitution text from the prototype line. To match the prototype it will be enclosed in [] before the match is done. If field 1 is "1", it will match the term "[1]" in the prototype line.

Field 2 The type of control to display: The currently defined types are:

Type Flag	Type	Definition
S	Switch	This is an On/Off control (checkbox.) If it is off, the term is simply removed during substitution.
Rn	Radio Group n	N must be an positive integer number. There is no space between R and the number. All controls in the Rn group will be placed inside a single box and will behave as normal radio buttons. All radio controls for the Rn group MUST be grouped together in the data file.
T	Text Field	The text field is for user entry of text. The input text is currently not limited or filtered.

Field 3 For Switch and Radio controls, this is the literal substitution value which will be used on the prototype line. It may also contain a second level substitution item from a Text field. (See below) For Text controls this is the default value which will be placed in the text field. If you want to leave the text field blank, put nothing between the two “|” field seperators. (Don’t put a blank in there unless you want a blank in the field by default.)

Field 4 This is the label for the control. This text displays next to the control on screen. It does not wrap, so you need to be careful about the width.

Field 5 Help text for the control. This text will be available as a tool tip when the cursor is placed over the control. If you have no help text for the control you still need to have the field separator after Field 4.

Note: If you need to use “|” in the Option Display or Help Text, you may escape it by using “\|”.

Important Notes

The .cmdo files are Unix files and **must** have Unix line endings. If they don’t they will not work.

All tags are formatted [tagname], where the “[” and “]” will be stripped when substitution is done.

A second pass over the command string is performed so secondary substitutions of tags can be processed. The convention for secondary tags is <tagname> and the substitution text is [<tagname>]

There is very little error checking done when these files are read. It is assumed that they have been tested by the implementor.

There is a fixed display area for each pane. The format is two columns which gives you limited space for labels. Make use of help text for detailed information. Make sure all the controls you defined in the pane are visible. It is possible that a group at the bottom of column 2 will not show up. Create additional panes if you must.