bashlibs

Bash Shell Libraries

This new Bash Shell Libraries upgrades the Shell Functions e-book. To support the diverse development needs, the focus shifts to separate libraries supporting the various needs of Shell developers.

At bottom, it recognizes three needs of a Shell developer independent of their own application development families.

- backing up functions, libraries, and ancillary files: images, spreadsheets, …
- converting function libraries, their collections, into Apps
- producing a library/function data base, it uses the Unix Relational Data Base

Here is this folder's Table of Contents

Dcoument Conventions

Here we specify the formating required for each identified document obuject:

- any **file**
- user `function`
- *system concept*
- system **command**
- user-define App
- included source file markdown format
- internal section reference
- url, local
- url, public

Version maintenance for CHANGELOG

The current CHANGELOG

How to Upgrade

Functions in the Process

```
where_versions ()
{
    : identify the directories with versioning info;
    : date: 2023-09-26;
    foreach dirname $(find ~/{mcorg,marty3} -name .ver -type d) ~/.ver
}

versions ()
{
    : in a directory with numeric X.Y.Z versions;
    : versions must begin with 1 or more digits;
    : related: backup_ver to set the x.y.z nums;
    : date: 2023-09-26;
    ls .ver | grep '^[0-9][0-9]*[.]'
}
```

```
list_versions ()
{
    : version maintance;
    : related: backup_ver;
    ${@:-echo} {list,my,where}_versions latest_version versions
}
```

```
latest_version ()
{
    : most recent in numero-alphic order;
    : date: 2023-09-26;
    my_versions | sort -n tail -1
}
```

From the Command Line

The First Library

Debugging

Uses these six functions, useing the

```
$ echo {{debug,pause},_{on,off}}
```

The debugging features may be turn on or off together using thesa aliases. It's usually prefferable to set them together, thought not necessary. The _on and _off functions redefine the debug and pause functions to execute their respective commands or simply return without taking action.

When on `debug` treats all its arguments as a `comment`, displaying on the `standard error`. where `pause` halts the process, inviting the user to either stop with a *[CTRL] - C* or continue with a *[Return]*

When turned **off** the commands simply return.

```
alias off='debug_off; pause_off'
alias on='debug_on; pause_on'
```

debug_on

```
debug_on ()
{
    : write a COMMENT, on STDERR, at a point in a function, listing ...;
    : the CALLER and any passed ARGS, who CALLED it, 3rd, and that CALLER, 4th as well;
    : lesson: NO user functions in DEBUG:;
    : date: 2022-03-07;
    : date: 2023-01-30;
    eval "debug () { printf \"%-21s\\t%-21s\\t%-21s : %s\\n\" \${FUNCNAME[3]} \${FUNCNAME[2]
}
```

debug_off

```
debug_off ()
{
    : no diagnostics, just return;
    : date: 2023-03-29;
    function debug ()
    {
        return
    }
}
```

pause_on

```
pause_on ()
{
    : pause the script, waiting for the users CR;
    : date: 2023-01-30;
    eval "pause () { local mapa=\${FUNCNAME[1]}; read -p \"[return] or {Ctrl-C} $mapa $* ? \
}
```

pause_off

```
pause_off ()
{
    : do not pause, just return;
    : date: 2023-03-29;
    function pause ()
    {
        return
    }
}
```

Reporting

- or asserting, report_not…

Shell Features

The Tab

The Null Command

Unix Commands

Syntax, Tricks, gotchas

Python and Awk

Development and Maintenance

Function Database

- library, function, context

The Practice

Library Organizatin

The APP

- here, or Applications > An appliction, the APP

Applications

Backup,

- the only one you'll ever need

RDB

- row column sort, join, table list

An application, the APP

- Building

Miscellany

pidifuset

- .g. today, 9/1 "set" fell off the cliff

history of former ideas

simplest surviving functions

Concept

Concepts go here, where either a

Reference

Definition