

I.2-UNIX-ICP PROGRAM EXECUTION INFORMATION FOR THE CALIBRATION SYSTEM INTERACTIVE CALIBRATION PROGRAM (ICP) ON UNIX SYSTEMS

Bookmarks

Apps Defaults Tokens [[Bookmark](#)]
Control Decks Storage Directory Structure [[Bookmark](#)]
Miscellaneous [[Bookmark](#)]
Tables [[Bookmark](#)]
[\[Bottom\]](#)

Contents

	<u>Page</u>
Apps Defaults Tokens	<u>1</u>
Control Decks Storage Directory Structure	<u>2</u>
Miscellaneous	<u>2</u>

[\[Next\]](#) [\[Previous\]](#) [\[Bookmarks\]](#) [\[Top\]](#)

Apps Defaults Tokens

ICP use the Apps_Defaults to set execution controls and path names (see Chapter I.2-UNIX-APPSDFLT [\[Hyperlink\]](#)).

The token icp_ribs specifies the directory where program ICP is stored.

The token icp_scripts specifies the directory where scripts run_mcp3, run_mcp3_remsb and relabel used by ICP are stored. The first two scripts are used to run MCP and the last to manage edited control files.

The token home_files_workstation specifies where the user's HOME files are located and the token icp_interface_workstation where the MCP-ICP data interface directory is located if different than home_files_workstation. These tokens allow ICP to run MCP on the workstation where the ICP-MCP data interface directory is located. This eliminates writing results over the local net which can improve performance.

The token mcp3_icp_iface should be set for each user so that users will not see each other's results. All of the files in this directory are removed each time ICP stops.

The token icp_pw is used by ICP for maintenance of the tree structure for the control decks. Creation and deletion of regions and basins are minimally protected and watersheds are not protected.

The token icp_editor specifies the editor to be used to edit ASCII text documents, the wide-listing and the control deck. If the user does not use the editor token or it is blank then a standard X/Motif Text Widget is used.

Table 1 [\[Bookmark\]](#) lists the token name, the usual value and

description.

[\[Next\]](#) [\[Previous\]](#) [\[Bookmarks\]](#) [\[Top\]](#)

Control Decks Storage Directory Structure

The control decks are stored in subdirectories under the directory defined by the token `mcp3_decks`.

The first level is the region name such as `abrfc`, `nerfc`, `wgrfc`, etc.

The next level is the basin name with a subdirectory for each basin.

The last level is watershed names with a subdirectory for each watershed that contain the control deck files. ICP uses three kinds of control decks - `.curr`, `.prev` and `.best`. For example the current control deck for OFSTEST Segment AFTNC in North Carolina would be in `$(mcp3_decks)/ofstest/nc/aftnc/aftnc.curr`.

[\[Next\]](#) [\[Previous\]](#) [\[Bookmarks\]](#) [\[Top\]](#)

Miscellaneous

1. Special consideration for script `run_mcp3_remsh`:

Script `run_mcp3_remsh` is used to run MCP remotely on the user's `home_files_workstation`. In the script the environmental variable `APPS_DEFAULTS` is specified and exported. The value is the complete path to the system wide `.Apps_defaults` file.

2. Automatic creation of the ICP-MCP data interface directory:

If the ICP-MCP data interface directory specified by the token `mcp3_icp_iface` does not exist ICP will create it in the user's `$HOME` directory structure.

3. For faster running when not running on the user's home files workstation:

When MCP is run by ICP it writes data for the graphics. If ICP is run while logged into a machine that is different the home files workstation or MCP-ICP interface workstation, the data is written onto the net, local or otherwise. This is because the ICP-MCP data interface directory is expected there as indicated by the `Apps_Defaults` token `mcp3_icp_iface`. The use of the net will slow the execution time.

The slow down can be reduced a few items are provided so ICP can run MCP by executing a remote shell on the user's home files (or `mcp3_icp_interface`, if indicated in `Apps_Defaults` token `icp_interface_workstation`) workstation. This will shorten running time from minutes to seconds. Two things are needed:

- a. the token `home_files_workstation` or `icp_interface_workstation` needs to be entered into the user's `.Apps_defaults` file

b. a .rhosts file needs to be in the user's \$HOME directory

The form of the entries is:

```
home_files_workstation : <hostname>  
icp_interface_workstation : <hostname>
```

where <hostname> is the hostname of the machine address

The .rhosts file has a line for each machine different from the user's home file workstation which the user might use.

The form of the lines is:

```
abcdefg user_login_id
```

With these two items in place ICP can remotely logon to the user's home file workstation without needing the user's password. Without the .rhosts line the remote logon will be rejected, the script will terminate and MCP will not be run.

4. How MCP constructs path to the time series:

MCP appends to the value defined in the token calb_data_dir the string in the control deck on the card following the definition of an input time series. There is a limitation of 100 bytes on the base string (token: calb_data_dir) and 35 in the control deck string.

5. Preparation of input time series:

The rounding of precipitation data to hundredth of an inch level can cause loss of about 4 percent of the precipitation. To reduce this loss at least 3 decimal places of precision should be used in the input files when the data is in inches.

Table 1. Apps_Defaults tokens used by ICP

<u>Token Name</u>	<u>Usual Value</u>	<u>Description</u>
		[Next] [Previous] [Bookmarks] [Top]
mcp_decks	\$(calb_input)/mcp3/decks	ICP - to locate the control decks - this is the branch-root for the control deck storage structure - requires a subdirectory named 'regions'
mcp_dir	\$(calb_bin)	ICP - to locate MCP
mcp3_icp_iface	\$(HOME)/icp/mcp3_ntrfc	ICP and MCP - directory to exchange data and results
icp_editor	vi nedit	ICP - name of editor program - if not specified an X-Motif Text Widget is used
icp_pw	hILLEL	ICP - minimal protection for control deck tree structure maintenance
calb_data_dir	\$(calb_input)/mcp3/data	MCP - to locate root of search for input time series
home_files_workstation		ICP - this is the workstation where the user's files physically reside - it is used in ICP to run MCP on the user's home machine because that is where the data interface is located
icp_interface_workstation :		ICP - allows placement present only if of interface on workstation other different from than home_files_workstation. home_files_workstation - use of this token implies maintenance of mcp3_icp_iface token - use of \$LOGNAME or \$USER or what is used to identify user is indicated in such maintenance

The following tokens are defined in the system-wide .Apps_defaults file.

Three convenience tokens:

icp_dir	\$(apps_dir)/nwsrfs/icp	user - to locate icp
---------	-------------------------	----------------------

Table 1. Apps_Defaults tokens used by ICP

<u>Token Name</u>	<u>Usual Value</u>	<u>Description</u>
icp_rls	\$(icp_dir)/bin/RELEASE	by using the go function
icp_arc	\$(icp_dir)/bin/ARCHIVE	

Supporting tokens:

calb_dir	\$(apps_dir)/nwsrfs/calb
calb_rls	\$(calb_dir)/bin/RELEASE
calb_arc	\$(calb_dir)/bin/ARCHIVE
calb_bin	\$(calb_dir)/bin/RELEASE
calb_input	\$(calb_dir)/input

[Next] [[Previous](#)] [[Bookmarks](#)] [[Top](#)]