

CASA and the Environment

*Politics is the art of
controlling your environment*

—Hunter S. Thompson

CASA Preferences

- Extension of current CASA RC scheme
- Single source for all preferences
 - Accessible through C++, Python and shell
 - Calculation of derived values handle in the framework.

Uses

- Interface to the host
- Tuning/Customization
- Feature Toggle
- Debugging

Environmental Variables

- Minimal use will be made of shell variables
- Access to the environmental variables will come through the Casa Preferences framework.

Preferences Declared

- All settings will need to be declared
 - Either via a macro or an external file.
- Declarations provide for required documentation.
- Access mechanism will be checkable by the compiler
 - No: `s = getSomething (“theName”)`.
 - Yes: `s = getSomething (Aconstant);`
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Naming

- The preference names will be a set of dot separated components.

`Synthesis.VisibilityIterator.asyncio.enabled`

- Topmost component will be related to the module.
- Next component will be more specific part of the code (e.g., a class name).
- Last component(s) will be up to the definer.

Setting Preferences

- Preferences will be built up from a list of preference files:
 - Site-specific file (e.g., /etc/casapreferences.rc)
 - User-specific (e.g., ~/.casa/casapreferences.rc)
 - Current directory (e.g., ./casapreferences.rc)
 - Specified (e.g., casapy -rc myPrefs.rc)
 - On command line (e.g., casapy -pref synthesis.visibilityIterator.someSetting=value)
- More specific setting override less specific
- Tools will show current settings and files used.
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Setting Preferences (cont'd)

- Supporting utilities will be provided
 - Allow display of current settings and files used.
 - Validate rc files and issue warnings when the contain undefined values.

Current Values

- The codebase appears to contain just over 50 different* casa rc values.
 - List on the CASA SE wiki
- Each line contains an attempt at getting the casarc tag name and the file where it was found.
- Everyone should look through the list and provide a short blurb