AIPS Memo 98

AIPSTerminal for Linux PC's

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Abstract

There has been some interest in accessing AIPS on a home Linux PC. Many home machines lack the resources to run AIPS well and people may not wish to move large amounts of data to and from home. A small install package was created for Red Hat Linux which contains a minimal subset of AIPS to run the TV, Message and Tek servers. With this package, a user may run the servers from home, dial into the network and access AIPS on their workstation in an efficient manner.

1 Introduction

The AIPSTerminal package is built from the current revision of AIPS and packaged as a Red Hat RPM file. The package can be installed anywhere on the Linux box, either by the superuser or a normal user and occupies a few hundred kilobytes. It is useful for providing the ability to access AIPS from home in a manner that is more efficient than having X clients constantly push bitmaps across a modem link. Even though it is possible to create RPM's for other operating systems, only an Intel/Linux version was done. We can provide support if there is demand for other configurations that run AIPS .

The install package may be retrieved from the AIPS ftp site. Those who maintain their own modifications to AIPS may wish to retrieve the source RPM and build packages of their own.

2 Installing and Running

The package runs on whatever system will be compatible with the same version of AIPS . Either the `g77` or `f2c` libraries must be installed. Red Hat Linux version 4.2 is the current base for compilation though it should operate in any recent Linux environment (*i.e.*, Debian 1.3, Caldera 1.1). Red Hat's RPM is needed to handle the package.

The AIPS manager at your site will need to have additional guest image catalog files to handle AIPSTerminal sessions. Instructions for doing this are covered in the installation notes for AIPS .

2.1 Retrieve the Package

The package can be retrieved from `ftp://aips.cv.nrao.edu/pub/aips/AIPSTerminal`. The install package is named `AIPSTerminal-VERSION-REV.i386.rpm`, where `VERSION` is the corresponding AIPS version and `REV` is the packaging revision. There may be incompatibilities between versions so it is best to choose the one which matches the AIPS version you use. Packaging revisions will contain small bug-fixes but no major code changes. The `AIPSTerminal-VERSION-REV.src.rpm` package is the skeleton to build your own.

2.2 Installing

To install the package, become root and use RPM (*i.e.*, `rpm -U AIPSTerminal-15OCT97-1.0.i386.rpm`). The package will install by default into `/usr/local/AIPSTerminal`. You may install it elsewhere by using the `--prefix` option (*i.e.*, `rpm --prefix /opt -U AIPSTerminal-15OCT97-1.0.i386.rpm`). You may also install the package without becoming root if you have your own personal installation of RPM by using the `--prefix` option. Documentation for the package is located in `/usr/local/AIPSTerminal` instead of `/usr/doc`.

2.3 Running

The package contains a script called `AIPSTerminal` which will set up the local *AIPS* environment and run the servers . You may wish to copy it to `/usr/local/bin` or somewhere else in your path. Running the script is the simplest way to start the servers. They can also be started manually by setting up the local *AIPS* environment using the standard method with `/usr/local/AIPSTerminal` as your `AIPS_ROOT`.

3 Building a Customized Version

It is unlikely that you will need to build your own package. I recommended that you become familiar with using RPM to build packages first before building this one.

After installing the source RPM, examine the `AIPSTerminal.spec` file for version changes. You may need to select a different *AIPS* version by changing a few places at the top of the file. You will certainly need to change the value of `BuildRoot`. I tried to keep the `AIPSTerminal.spec` file more or less version independent so the changes should be small. Some of the patches are version dependent and will need to be modified. The *AIPS* versioning scheme doesn't lend itself well to sorting. Because of this, I included a serial number for each revision which is based on the release version. Check the `serial` tag to be sure that it matches the version (*i.e.*, `15APR98` becomes `19980415`).

The package preparation stage will require an existing *AIPS* installation to copy files from. Setup the *AIPS* environment for the version you are building from before trying to make the package. The `prep` script will check the file `AIPS.filelist` for files and directories to copy. This file will also be parsed and fed to RPM to generate the final package. The attribute commands are there to allow you to make the package without needing to become root. Any files that are created by the procedure instead of copied from the *AIPS* distribution are listed in the `files` directive.

RPM will use the `AIPSROOT.DEFINE` script to set a proper value for `AIPS_ROOT` in all of the package's scripts when it is installed. If you add a script that has its own `AIPS_ROOT`, make sure that it is modified by the package.

A common scheme for marking locally modified revisions is to append your initials or your organization's acronym to the revision. Please use this scheme or one like it if you redistribute the package.

4 Contact

Please refer questions about the package itself to Robert Millner, rmillner@nrao.edu. Questions pertaining to *AIPS* should be directed to the Designated Aip, daip@nrao.edu. For more information on Red Hat Linux or RPM, see `http://www.redhat.com`.