APPENDIX B -Antelope 4.11 release
Upgrade Recommendations

1. Supported platforms

a. By BRTT

From BRTT: "*The 4.11 release was compiled on the following architectures:*

- *Solaris* *Solaris 10*
- *Linux* *openSuSE 10.3 (i586 32-bit) (kernel 2.6.22.5)*
- *Macintosh* *Mac OS X 10.5.6 (Leopard)*

All of the architectures use Perl 5.10.0 and tcl/tk 8.4. The tclX Extension is different and more restricted on Linux and Macintosh.

All versions of the release include a compiled version of Kent Lindquist's Antelope Matlab extensions; the Solaris version was compiled with an older version, since Mathworks evidently does not support 32 bit on this platform any more.

Antelope 4.11 is compiled as 32 bit. We are continuing to make progress with the 64-bit version. This version contains orbserver64 for INTEL Mac OS X, but not for Linux, due to complications of producing and providing both 32 and 64 bit binaries on Linux."

For more details on 4.11 release, please go to: http://www.brtt.com/release/4.11/

b. By PASSCAL

- *Solaris* *Solaris 10 (sparc architecture)*
- *Linux* *openSuSE 10.3 (i586 32-bit) (kernel 2.6.22.5)-*
  - *Plus almost any RedHat derived 32 bit linux using a 2.6.18 kernel or newer such as Fedora Core 10, RHEL 5, or CentOS 5.*
- *Macintosh* *Mac OS X 10.5.6 (Leopard),*
  - *Plus Leopard PPC, Mac OS X 10.4 (Tiger) PPC and intel. We will drop PPC support when the next version of OS X is released (Snow Leopard).*

PLEASE NOTICE THESE PLATFORMS ARE SUPPORTED FOR PASSCAL SOFTWARE NOT ANTELOPE.

VERY IMPORTANT:

All LINUX and MAC field machines provided by PASSCAL are little endian, for data archiving and ANTELOPE processing the data are required to be big endian. If you are processing your data on one of our field machines please be

aware you may need to modify the endianess to big endian , this can be done using fixdr* or with rt2ms* **

* (fixhdr and rt2ms - part of the PASSCAL software release http://www.passcal.nmt.edu/software/software.html) .
* ** (rt2ms – new tool to process rt130 data)

2. DATA PROCESSING FOR PASSCAL OR FLEXIBLE ARRAY, HAVE ANY OF THE TOOLS CHANGED?

For the main tools listed below and usually described in our antelope data processing guides, the short answer is NO. NO major changes have been encountered for these tools under any platform supported by BRTT.

PASSCAL currently uses ANTELOPE for the following purposes:

1. Generate the miniseed day volumes (with tools like miniseed2days, log2miniseed)
2. Create the metadata or dataless (make_dataless_seed)
3. Verify integrity of the database by data generated in numerals 1 and 2.
    a. Data and dataless checks (mainly : dbverify, dbversdwf, seed2db)
    b. Please notice that the database does not need to be sent to PASSCAL, it is only used as a link between data & dataless so verifications can be done.
4. Antelope real time data acquisition – for internal purposes and for some Flexible array experiments.
    a. q3302orb – QUANTERRA dataloggers
    b. rt2orb – REFTEK (rt130) dataloggers
    c. Other real time tools as orb2db, orb2orb, etc for real time data storage.

3. Do I need to upgrade?

BRTT recommends upgrading to the most current version to which they provide support. Previous releases are UNSUPPORTED.

For data processing/archiving of any PASSCAL or Flexible Array (FA) Experiment we recommend the following depending on the stage of your experiment and the considerations stated below:

- **STAGE OF YOUR EXPERIMENT**
    - If your experiment is almost completed or ends soon, continue processing with your current version of Antelope.
    - If you are about to start processing your data for archiving, please upgrade antelope to 4.11
        - IRIS members can request Antelope from: http://www.iris.edu/manuals/antelope_irismember.htm

- If you are NOT an IRIS MEMBER but are required to archive data from a PASSCAL or FA experiment please send an e-mail to data_group@passcal.nmt.edu and we will help you obtain 4.11 and its license.

- **ANTELOPE USE**
  - **Platform dependent**
    We recommend using any of the currently supported platforms by ANTELOPE 4.11 and PASSCAL.
  - **Data processing for Archiving**

  PASSCAL users have access to antelope exclusively as a tool to generate their data in SEED format (mseed day volumes and dataless). Antelope 4.11 and 4.10 did not change significantly; however remember if you decide to stay with 4.10 there will not be any BRTT support.
  - **Data processing for further analysis/processing.**

  PASSCAL does not provide support for any analysis/processing done with Antelope beyond data archiving. If you have any interfaces to other programs/scripts/analysis tools with your local database, it is up to you to decide how upgrading will affect your local database.

4. Useful man pages to review in Antelope 4.11

- dbbuild
- dbbuild_examples (please make sure you take a look at this one, there are plenty of good examples on how to edit your batch file)
- dbe
- dbverify
- dbversdwf
- log2miniseed
- miniseed2days
- seed2db

How to Request and Install Antelope

PASSCAL computers have Antelope pre-installed. However, you may need to update the version of Antelope on the PASSCAL computer if it has been in the field for more than one year. Additionally, BRTT releases patches throughout the year. Therefore we recommend you regularly check for Antelope patches. For more information about Antelope visit http://www.brtt.com and see the man pages.

- **IMPORTANT:** IRIS has an agreement with BRTT that the PASSCAL

Instrument Center will provide Antelope support for all PASSCAL experiments. Please direct all Antelope questions to passcal@passcal.nmt.edu.

1) Requesting Antelope

New versions of Antelope are released late winter or early spring. You should check for the most recent version at http://www.brtt.com. If you have an old version of Antelope please fill out the proper form here: http://www.iris.edu/manuals/antelope_irismember.htm.

If you or your institution is not an IRIS member but you will process data from a PASSCAL experiment, please contact us at data_group@passcal.nmt.edu. One may find a list of IRIS members at http://www.iris.edu/hq/about_iris/membership.

2) Installation

Please follow the installation instructions found in the README file. Make sure you complete the file site.pf with your network information. This file is stored in /opt/antelope/latest_version/data/pf/. For a detailed description of this file refer to the man page (i.e. **man** site.pf).

3) Setting the Proper Environment

Antelope is self-contained and requires certain environment variables to run properly. There are two scripts in /opt/antelope/latest_version that may be used to setup your shell environment (setup.csh and setup.sh). Depending on your login shell you will need to source one of these two scripts, and it is advisable that you include it in your login files. You can source this file with the following:

<my_cpu> **source** /opt/antelope/latest_version/setup.csh

Alternatively, you may put the following statement in your login scripts (assumes a csh compatible session) to ensure the Antelope environment is set for all active shells:

```
if ( -r /opt/antelope/4.3u ) then
   source /opt/antelope/latest_version/setup.cshrc
endif
```

4) Verifying installation

You may run the command **check_antelope_installation** to verify the installation was done properly.

5) Licensing Antelope

To request a license, run the following commands:

<my_cpu> **source** /opt/antelope/latest_version/setup.csh
<my_cpu> **register_antelope –m** data_group@passcal.nmt.edu

If you install Antelope and you are not an IRIS member, but are processing data from a PASSCAL experiment for archiving, please do not complete the request form and enter QUIT to finish your installation. PASSCAL is responsible for processing all PASSCAL experiment license request for BRTT

The **register_antelope** command will collect the necessary information about your working environment and launch a GUI interface. Verify the information and under the heading 'license type' and select 'node' before you submit the request to PASSCAL.

6) Patching Antelope

You should keep Antelope updated with available patches. To install patches you may need to be root (depending on the UID that owns /opt/antelope). The utility **antelope_update** is a GUI interface that will list and install available updates.

Please e-mail data_group@passcal.nmt.edu if any questions.