Installing ARB

Files needed to install ARB

File	comment
arb_README.txt	readme file
arb_install.sh	install script
arb.tgz	ARB-program
zcat	decompress (gzip)

Install/update ARB

ARB consists of more than 750 files which are installed into a single directory. Creating this directory, copying all data into it, and setting the permissions correctly is done by the installation script `arb_install.`

Goto the directory, where the files

arb_install.sh	install script
arb_README.txt	readme file
arb.tgz	all the libs and bin
zcat	decompress

are located and type `sh arb_install.sh`

Answer all questions asked by the script.

Notes:

1. The script will ask you for the path where ARB should be installed
   recommended: /usr/arb
2. The script will ask about the pt_server directory. This is a directory where arb will store big index files. If possible set the path to a directory, where you have enough space left.
   If you just press enter, the pt_server files will be placed within the ARB directory tree
3. Next question: Who is responsible for the pt_server files?
   The best thing is to say y, then all users can update the pt_servers
4. NameServer installation – trust users?
   Again, trust your users and say y
5. Networking
   In most cases: say s for standalone

You can rerun the script many times, it can also be used to change an existing installation.
After the machine tells you: **"**>> **Installation Complete"**, you have to make some changes in the ini-file for the shell you are using. We recommend that you change the .cshrc for tcsh or .bashrc or .profile for bash in the homedirectories of the users.

The .cshrc should look like:

```
setenv ARBHOME /usr/arb    # specify your path to the ARB directory here
setenv LD_LIBRARY_PATH $ARBHOME/lib
setenv PATH $ARBHOME/bin\:$PATH
alias arb=/usr/arb/bin/arb # specify your path to the ARB-program here
echo "ARB"                 # to see if the script has been read
```

The .bashrc should look like:

```
ARBHOME=/usr/arb;export ARBHOME #specifies your path to the ARB directory
LD_LIBRARY_PATH=${ARBHOME}/lib:${LD_LIBRARY_PATH}
export LD_LIBRARY_PATH
PATH=${ARBHOME}/bin:${PATH}
export PATH
alias arb=/usr/arb/bin/arb # specify your path to the ARB-program here
echo "ARB"                 # to see if the script has been read
```

reread the ini-files, by logout+login

go to a directory with a ARB database `xyz.arb`
and **start 'ARB' by typing `arb`**

If you use Linux you should have these packages installed:

xfig	simple drawing program
transfig	used to print trees
gs and ghostview	previewing trees
complete xview	for gde
X11	because ARB is based on X11

Troubleshooting:
If ARB doesn't start after the installation of SuSe Linux 6.4 you have to install the ShlibS5 library from the Linux CD's manually. Go to the Yast menu and search for the ShlibS5 library in the packages, select it and install it.

PT_server

When you work with ARB you have to know that some modules use a so called “pt_server” (prefix tree server). For that mysterious thing ARB needs a writeable directory to store the pt_server files (see point 2 in the ARB installation procedure).
Those files are needed for fast database search by probe_design, probe_match and the automatic aligner, and need a lot of disc space - up to several 100 Mb (e.g. 15,000 16S rRNA sequences require about 150 MB).
The files are not created within the installation procedure, but later on by going to the **ARB_NT menu -> etc -> pt_server admin -> update server**. This create/update procedure might take up to some hours, depending on the amount of sequences and the machine you are using. You may define a special directory for the pt_server files location, which will prevent any loss of data when installing a new version of ARB.
If you are working on a workstation cluster, you can define a central location where all pt_servers are stored and mount it on your local host. All users will than have the same pt_servers on all machines, and the update procedure has to be done only once.
The important configuration file for the pt_servers is located in the “ARBHOME”/lib directory and called **arb.tcp.dat**. It is a simple text file, which can be edited by any kind of texteditor.