

Attila User's Manual

Jean-Paul Chaput
System Administrator
Pierre & Marie Curie University, LIP6
ASIM Department

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by Jean-Paul Chaput

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I. *Alliance* - attila User's Manual

attila

Name

attila — A Tool Installer

Synopsis

```
attila [-h] [-S] [-U] [-F] [-A]
[--help] [--ssh] [--user] [--asim]
[--prefix=INSTALL_DIR] [--builddir=BUILD_DIR]
[--tool=name1] [--tool=name2...]
[-c {configure_arg1} [configure_arg2 ...]]
[-m {make_arg1} [make_arg2...]]
```

Description

attila automates the process of compiling and installing one or more *Alliance* tools. The tool can be installed either in the user's account (during the development stage) or in the *Alliance* system wide tree (for instance /asim/alliance) when a new version is made available to all.

attila proceed with the following steps :

1. Checks if the sources of tools are present in the user's account. If not, check them out from the *Alliance* CVS tree. Note that you must have access to it.
2. In case of **--asim** or **--full** installations, attila will fork itself on one Linux computer (currently bip) and on one Solaris computer (beny). As to connect on thoses computer it will uses rsh so you must setup your ~/.rhosts to access them without passwords. You also can uses ssh (but the procedure to allow automatic login is more complicated).
3. Run autostuff for the tool in the ~/alliance/src directory.
4. Run configure in the build directory (see below).
5. Install the tool in the local install directory (see below) or in the system-wide *Alliance* directory rooted under /asim/alliance.

After an --asim install: the build directory tree of the tool will be removed to avoid messing with further local installations.

Directory Structure

attila relies on the following tree structure : (all paths below are given relative to the user's home directory)

- ~/alliance/src where the tools sources are to be found.
- ~/alliance/Linux/build/\$TOOL : the top directory under which the tool will be compiled for Linux. This is where the configure script will be run.
- ~/alliance/Linux/install : the top of the install tree when the tool is compiled locally for Linux. Under this directory you will found (at least) : ./bin, ./lib and ./include.

- `~/alliance/Solaris/build/$TOOL` : the tool's build directory for Solaris.
- `~/alliance/Solaris/install` : top of the local install tree for Solaris.

CVS checkout

If the sources of the requested tool(s) are not found under `~/alliance/src/` `attila` will try to check them out. So, as says above, you must have access rights to the *Alliance* CVS tree.

In addition to the tool(s) sources, it will also checks for the minimal set of files needed for configure to run. As for now :

- `autostuff`
- `alliance.m4`
- `motif.m4`
- `Makefile.am`

Guessing CVSR00T

The root of the CVS tree will be set according to the following rules :

1. Uses the user's environment variable `CVSR00T` if sets.
2. Uses the `attila` default value sets in `attila.conf` (variable `ATTILA_CVSR00T`).

Guessing ALLIANCE_TOP

The root of the Alliance installed distribution tree will be set according to the following rules :

1. Uses the user's environment variable `ALLIANCE_TOP` if sets.
2. Uses the `attila` default value sets in `attila` itself (variable `ATTILA_ALLIANCE_TOP`).

ALLIANCE_TOP: is set in `attila` itself because its value is a prerequisite to load the configuration file `attila.conf` which is in the directory `$ALLIANCE_TOP/etc/`.

Arguments

`attila` accepts the followings arguments :

- `-h, --help` : print help.

- **-S, --ssh** : uses ssh instead of rsh to connect to the remote computers (in case of **--asim** or **--full**).
- **-U, --user** : perform a local installation.
- **-F, --full** : install for all available architectures (currently Linux and Solaris).
- **-A, --asim** : install in the system-wide directory (/asim/alliance).
- **--prefix=INSTALL_DIR** : override the default installation directory.
- **--builddir=BUILD_DIR** : override the default building directory.
- **--tool=name1** : name of the tool to be installed.
- **-c- configure_arg1** : all arguments following **-c-** (until a **-m-** is encountered) are passed *as is* to the subsequent call to configure. For example, if you want to first use your local libraries, give **--enable-devel**.
- **-m- make_arg1** : all arguments following **-m-** are passed *as is* to the subsequent call to make. If no **-m-** argument is given, then **install** is assumed. If you want to completely uninstall a tool and clean its build directory you can pass **uninstall clean**

Configuration file attila.conf

The configuration file is located in \$ALLIANCE_TOP/etc. This file is to be read by the sh shell. It sets up the following variables :

- **LINUX_TARGET** : the computer where to compile for the Linux architecture (default bip).
- **LINUX_CC** : the name or full path to the C compiler for Linux system (default gcc3).
- **LINUX_CXX** : the name or full path to the C++ compiler for Linux system (default g++3).
- **SOLARIS_TARGET** : the computer where to compile for the Solaris architecture (default beny).
- **SOLARIS_CC** : the name or full path to the C compiler for Solaris system (default /usr/local/gcc-3.0.4/bin/g++3).
- **SOLARIS_CXX** : the name or full path to the C++ compiler for Solaris system (default /usr/local/gcc-3.0.4/bin/g++3).
- **ATTILA_CVSROOT** : the root of the Alliance CVS tree (default /users/outil/alliance/cvsroot).
- **CVS_STARTUP_FILES** : the minimal set of files needed to run configure.

Examples

Compile & install nero tool on the local computer (must be either a Linux or a Solaris one) :

```
$ attila --tool=nero
```

Compile & install nero tool for all architectures (currently only Linux and Solaris are supported) :

```
$ attila --full --tool=nero
```

Compile & install nero tool in the system-wide directory (a new version for everyone to use) :

```
$ attila --asim --tool=nero
```

Compile & install mbk then genlib (the order is significant) in a row for a local install on the current computer :

```
$ attila --tool=mbk --tool=genlib
```

Compile nero tool and link it against the locally installed libraries (if any).

```
$ attila --tool=nero -c- --enable-devel
```

Remove poire tool from the system-wide tree. (poire is the old name of nero).

```
$ attila --asim --tool=poire -m- uninstall
```