

Attila User's Manual

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

Attila User's Manual
by Jean-Paul Chaput

Published September 2002

Table of Contents

I. *Alliance - attila* User’s Manual..... v
 attila.....7

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...]
```

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 whithout passwords. You also can uses `ssh` (but the procedure to allow automatic login is more complicated).
3. Run `configure` in the build directory (see below).
4. 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 `CVSROOT`

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

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

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.

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` the `genlib` (the order is significant) in a row for a local install on the current computer :

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