Attila User's Manual

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Published September 2002

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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 devellopment stage) or in the *Alliance* system wide tree (for instance `/asim/alliance`) when a new version is made avalaible 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 `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 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 avalaibles 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 completly uninstall a tool and clean it's 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 to the C compiler for Linux system (default gcc3).
- **LINUX_CXX** : the name or full path to 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 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 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
```