

# Fast Ant builds with CodeGuide

Michel CASABIANCA  
[casa@sweetohm.net](mailto:casa@sweetohm.net)

This article presents the integration of the Ant Console within CodeGuide to boost significantly build times. For Ant integration and other CodeGuide tips, see [this article](#).

## Ant Console

This tool runs Ant in a console (in a terminal or within your favorite IDE) and lets you type commands to run targets of the loaded build file. This method runs much faster than Ant because it saves time to launch the Java Virtual Machine, JIT compilation time and build file loading. You can run builds up to 5 times faster than running Ant on the command line. It is obvious than you save more time on small builds (when time spent in usefull code is small compared to startup time).

## Installation

Download SAT that you can get for free [on my web site](#).

Go in the *bin* directory of your Ant installation, copy the *ant* script (or *ant.bat* for OS disabled people) to file *antc* (or *antc.bat*). Replace `org.apache.tools.ant.Main` with `net.cafebabe.sat.ant.Console`. This script will launch the Ant console instead of traditional Ant. Make sure that this script is in your `PATH`.

You must, of course, install SAT by dropping the file *sat.jar* in the *lib* directory of your Ant installation.

## Usage

To run the Ant console, go in the directory of your project (where is living your *build.xml* file) ant type `antc`. You will display an help screen typing `antc -help` on the command line :

```
Ant Console 0.8 (C) Michel Casabianca 2003
type "help" to get help on console commands
Usage: antc [-help] [-version] [-timer] [-file file] [-find file]
-help      Print this help screen
-version   Print the version
-timer     Print build times
-file      To set the build file
-find      To search for the build file
```

When you launch the Ant console, you will be prompted as following :



### *Ant Console running*

To display an help screen about the console commands, type `help` in the console :

```
Commands you can run in the console are the following:
  help           To display this help screen
  exit           To quit the console
  desc           To describe the loaded project
  load file      To load the build file
  find file      To find the project file
  reload         To reload the current project
  timer on/off   To set timer on/off
  target foo     To run the target foo
  targetname     To run the target (can't be a console command)
  <empty>       To repeat the last command
```

Note that you can launch a given target by typing its name (this is a shortcut for the `target` command) provided that this target hasn't the same name than a console command. You can repeat the last command by typing `ENTER`.

You can load a build file using the `load` command (the path is then relative to the current directory) and search for a build file recursively in the file system with the `find` command (that behaves like the `-find` command line argument for Ant). You can also reload the current project with `reload`. This may be necessary when the build file changes on disk or when the project is corrupted (which happens sometimes after a build error because some tasks don't work after an error).

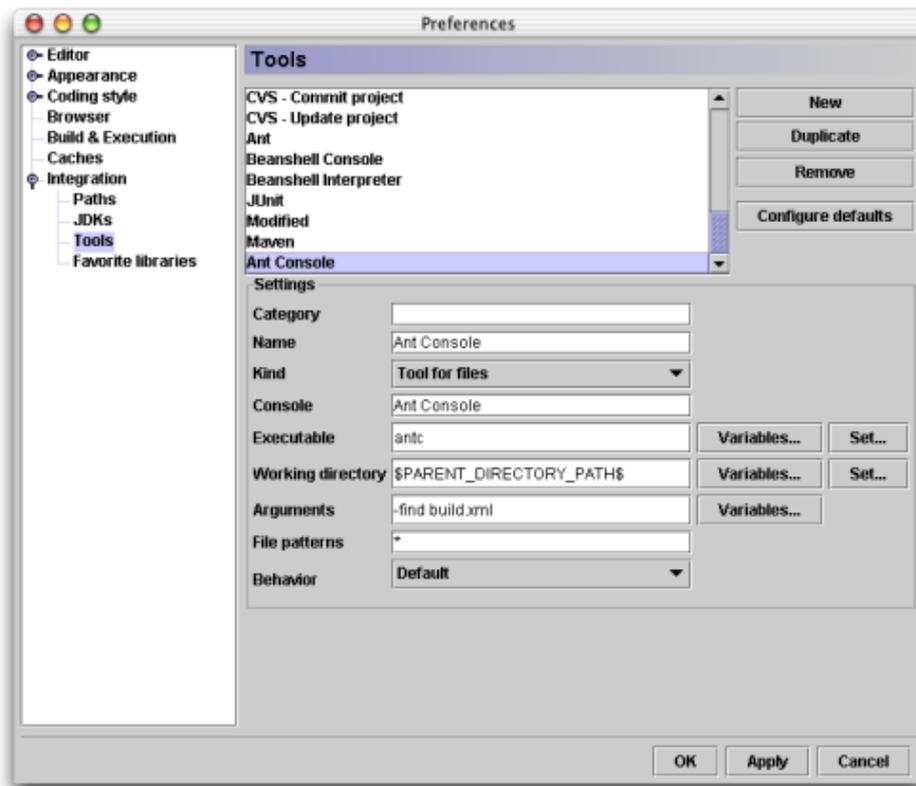
The `desc` command describes the current project (behaves like the `-projecthelp` command line parameter for Ant).

I have also implemented a timer (to display execution time for builds) that you can switch *on* or *off* using the `timer` command. The result is in milliseconds (because the builds are so fast :o)

## Integration in CodeGuide

I have [already said](#) that this IDE is fast and probably the most powerful for real world Java development, Ant is very slow compared to this tool. The goal of this integration is to make Ant run at light speed in CodeGuide.

First, make sure that the Ant Console runs properly from the command line (by typing `antc` in a terminal). Then we will integrate it as an external tool. To do so, open **Tools/Configure tools...** in the menu. The following window opens to let you configure an external tool:



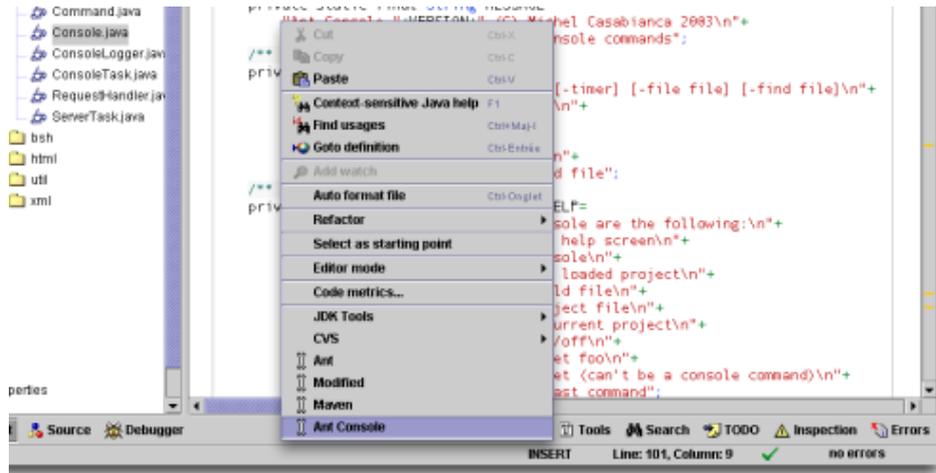
*Tools configuration window*

Click on the **New** button and fill fields with the following values:

| Field             | Value                     | Comment   |
|-------------------|---------------------------|---|
| Category          |                           | Leave this field empty (or the Ant Console item would appear in a submenu, which is useless in this case).  |
| Name              | Ant Console               | Logical   |
| Kind              | Tool for files            | To run the console searching for the build file recursively in the file system  |
| Console           | Ant Console               | As the tool is running in the background, it should run in its own console (don't run it in the Ant console for instance because you would have to stop it to launch a regular build) |
| Executable        | antc                      | We launch the <code>antc</code> command   |
| Working directory | \$PARENT_DIRECTORY_PATH\$ | To launch the console in the directory of the file  |
| Arguments         | -find build.xml           | The console look for the build file in the file system (so that if we launch the console on Java source file, it will search for the build file in a parent directory)                |

| Field        | Value   | Comment  |
|--------------|---------|--|
| File pattern | *       | We can launch the console on any file (I use it to perform my XSLT transformations for instance, so I run it onXML files for instance) |
| Behavior     | Default | Why not...   |

To run the console, right click on a file (in the editor pane or in the **Project** bar) and select the item **Ant Console**.



*Launch the Ant Console on a file*

This will open a dedicated console where Ant is waiting for your commands. Take a look at the build times (in milliseconds), it screams!

*The Ant Console running in CodeGuide*

The same build using Ant takes about 6 seconds (about 4 times more). Using the latest PowerMac dual G5 2GHz, you could probably compete for the fastest Ant builds on earth :o)

Thanks Frédéric for his corrections

Enjoy!