Building Tcl and Tk from sources

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Tcl and Tk are relatively easy to build from source. The source distribution includes support for building Tcl/Tk under Linux, Unix, Mac OS/X and Windows. The build files include support for GCC compiler as well as MS Visual C, Borland C and XCode.

The first step in building your own Tcl and Tk libraries and interpreters is to acquire the sources. The Tcl source tree is maintained `core.tcl.tk`, with mirrors at `www.sourceforge.net`.

The best way to get the most current bleeding edge or most recently maintained source code is to use the `fossil` repositories at `http://core.tcl.tk`.

The baseline Tcl and Tk sources are maintained using the `fossil` distributed code management application written by D. Richard Hipp. The executable (or source) for this can be obtained from `http://www.fossil-scm.org`

Once you have fossil installed on your system you can install the Tcl and Tk sources by opening a command or xterm window and typing commands similar to these.

Script Example

```
fossil clone http://core.tcl.tk/tcl tcl.fos
fossil clone http://core.tcl.tk/tk tk.fos
mkdir tcl
cd tcl
fossil open ../tcl.fos
cd ..
mkdir tk
fossil open ../tk.fos
```

Once the sources are unpacked, the `tcl` and `tk` folders will include folders named `macosx`, `unix` and `win`. Within each of these folders is a `README` file with information about how to build Tcl or Tk for that platform. This information changes occaissionally as platforms evolve, so it's best to check the README before trying to build Tcl or Tk.

Depending on the tools you have installed in your development environment (minimally, a C compiler, a make utility and a library utility), the steps to compile will resemble the following:

- `Windows`

  The source code distribution includes a Developer Studio workspace and project file.

  Most commonly, Tcl is compiled from the command line using the `nmake` application that is provided with Visual C++ 6.0.

If you use `nmake` the command to compile Tcl is:

```
cd sourceFolder/win
nmake -f makefile.vc
```

- `Linux/Unix`

  The Tcl and Tk distributions include a `configure` script to determine the exact configuration of your system and allow you to fine-tune the options.

  The steps to compile Tcl and Tk are:

  ```
  cd sourceFolder/unix
  ./configure
  make
  ```

- `Mac OSX`

  If you have installed the GNU make and GCC, Tcl and Tk can be built using the provided makefile.

  ```
  cd sourceFolder/macosx
  make
  ```

Once a new interpreter has been created, you can install it with the command `make install`.