## **AStyle C/C++ Source Code Formatter Plugin**

This plugin allows for formatting and pretty-printing of C/C++ source code in an easy and convenient way.

It is based on the Artistic Style code formatter utility.

```
void main() {
                        int ser id;
                                                                    This source code is
                   #ifdef USE_TINY_TIGER_PROTO_BOARD
                                                                     not formatted yet.
// switch Tiny Tiger Prototyping Board Ser0 to RS232
                       // (see documentation for detailed explana
 dir port(8, 0x80, 0); // set internal port 8, pin 7 to output
                                           // set internal I/O port 8, pin 7 to 0
                     out port(8, 0);
        #endif
                                        // get device id
                if ( (ser_id=device_get_id_by_name("SER1B_K1"))<0 ) // serial
            //install serial driver
device install ( ser id, BD 38 400, DP 8N, YES ); printf("Hello, World!\r\n"); } // End
                              AStyle Plugin
void main()
                                                                   But this source code
   int ser id;
                                                                   is already formatted.
#ifdef USE_TINY_TIGER_PROTO_BOARD
   // switch Tiny Tiger Prototyping Board Ser0 to RS232
   // (see documentation for detailed explanation)
   dir_port(8, 0x80, 0); // set internal port 8, pin 7 to output
   out port(8, 0);
                          // set internal I/O port 8, pin 7 to 0
#endif
   // get device id
   if ( (ser id=device get id by name("SER1B K1"))<0 ) // serial
   //install serial driver
   device install ( ser_id, BD 38_400, DP 8N, YES );
   printf("Hello, World!\r\n");
} // End
```

## What is the Artistic Style code formatter utility?

Artistic Style is a re-indenter and re-formatter of C and C++ source code.

The AStyle homepage is at sourceforge.net/projects/astyle/.

## Why Source Code Indentation?

When indenting source code, we as programmers have a tendency to use both spaces and tab characters to create the wanted indentation. Moreover, some editors by default insert spaces instead of tabs when pressing the tab key, and other editors (Emacs for example) have the ability to "pretty up" lines by automatically setting up the white space before the code on the line, possibly inserting spaces in a code that up to now used only tabs for indentation.

Since the NUMBER of space characters showed on screen for each tab character in the source code changes between editors (until the user sets up the number to his liking...), one of the standard problems facing programmers when moving from one source code editor to another is that code containing both spaces and tabs that was up to now perfectly indented, suddenly becomes a mess to look at when changing to another editor. Even if you as a programmer take care to ONLY use spaces or tabs, looking at other peoples source code can still be problematic.

## How to Install the Artistic Style Eclipse Plugin for Tiger C

Our plugin *AStylePlugin\_x.x.x* is intended to enable using the Artistic Style formatter under Eclipse.

This is done by using **Artistic Style** (also known as **astyle**) by Tal Davidson (davidsont@bigfoot.com).

See http://sourceforge.net/projects/astyle for more information.

The version currently used is **Artistic Style 1.15.3**.

#### Artistic Style is already contained in this plugin. There is no need to download it separately!

To install this plugin:

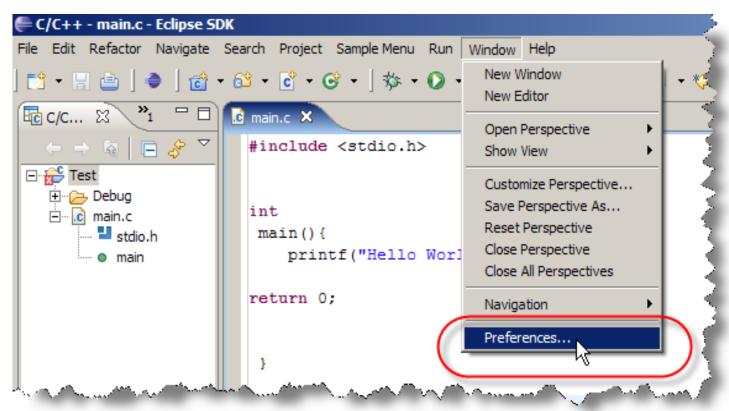
- 1) Exit Eclipse, if it is running
- 2) Unzip the contents of the file *AStylePlugin\_x.x.x.zip* to the directory TIGERC\_HOME/eclipse
- 3) Restart Eclipse. To make sure it picks up the new plugin(s), you need to start Eclipse with an argument of '-clean'; this tells Eclipse to flush its plugin cache and load everything fresh this time.

### How to Use the Artistic Style with Eclipse for Tiger C

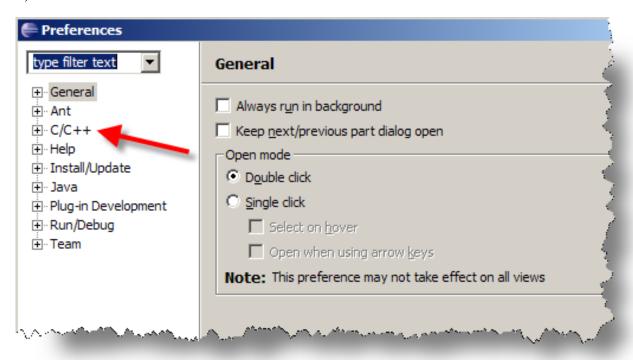
### **Configure Eclipse to Enable the Artistic Style**

After restarting you should re-configure Eclipse.

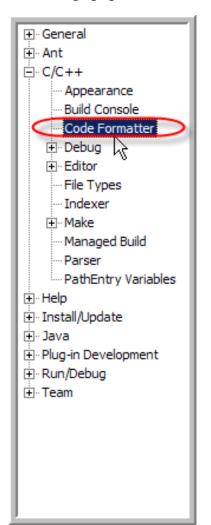
1) Open the window "Preferences" (Window->Preferences).



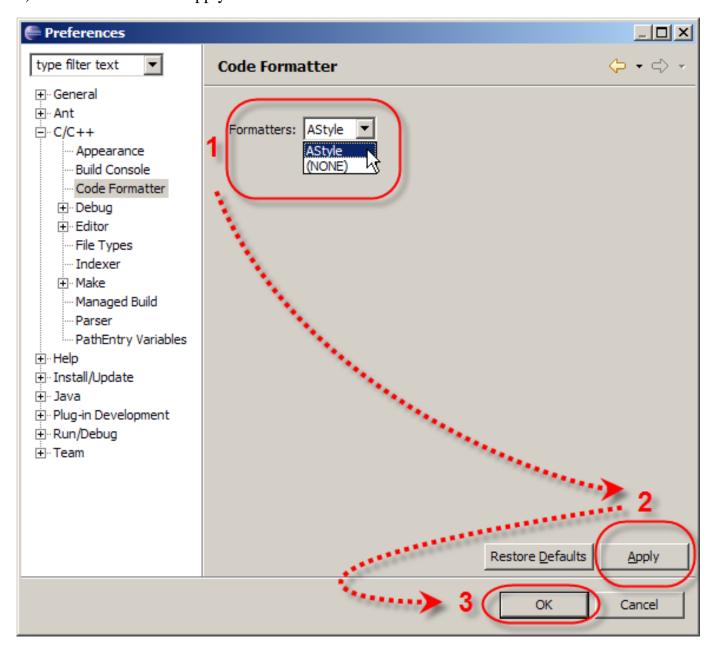
2) In window "Preferences" double-click on the "C/C++".



3) In the popup menu select "Code Formatter".

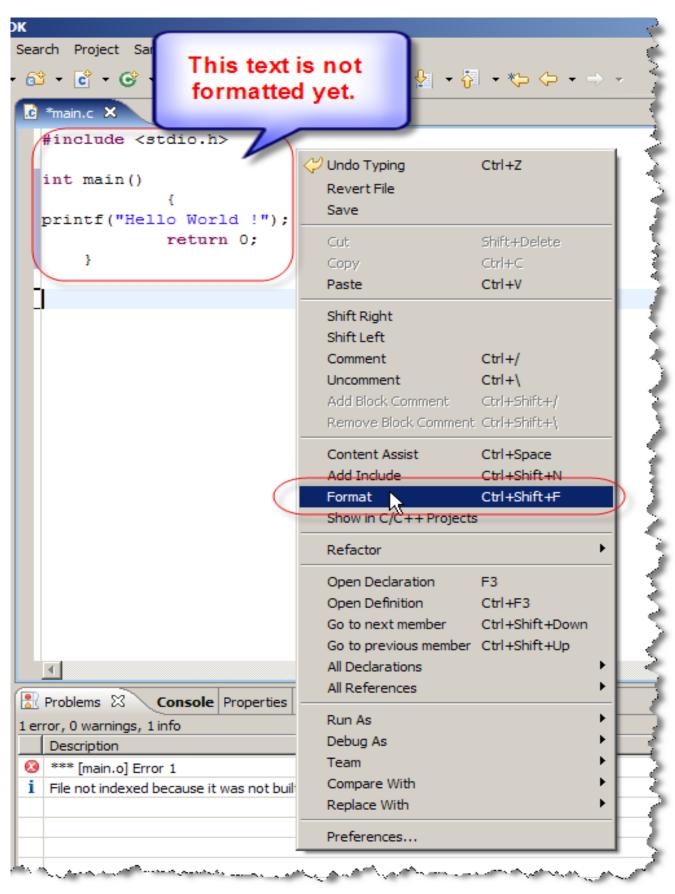


- 4) In the window "Code Formatter", in the combo box "Formatters" select "AStyle".
- 5) Click on the button "Apply" and then on the button "Ok".



### **Apply the Artistic Style for Source Code Formatting**

To format source code in the text editor click on the right mouse button and in the context menu select the item "Format" or use the buttons combination "Ctrl+Shift+F".



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