Configuring TextPad for use with TUFLOW

Background

Halcrow has developed a syntax file for TUFLOW for use with the TextPad editor as part of the software provision to the Environment Agency and are pleased to provide this syntax file for general use.

The syntax file provides highlighting for keywords in TUFLOW control and log files, and these instructions are provided on how to configure TextPad to use the syntax file and also to run simulations of TUFLOW directly from the text editor.

This syntax file and instructions for usage are provided as-is and Halcrow encourage and would welcome any feedback on its use (please send any comments to isis@halcrow.com).

Setting up the syntax highlighting of TUFLOW text files

A TextPad syntax definition file *tuflow v*.syn* (current version *tuflow v3.syn*) is provided for use with TUFLOW to allow highlighting of TUFLOW keywords. This may be placed in the TextPad folder within the Program Files folder structure, or alternatively in a user-specified folder if a local version is required. By default, this will be available if placed in the system sub-folder in the TextPad folder (typically "*C:\Program Files\TextPad 5\system*"). To utilise a local folder, one must select the default syntax file folder (e.g. *<Application Data>\Helios\TextPad\5.0*) in TextPad via the following menu option: *Configure > Preferences > Folders > Syntax* and copy the TUFLOW syntax file to this folder (see Figure 1; NB syntax files for other document types used may also need to be copied to this folder).
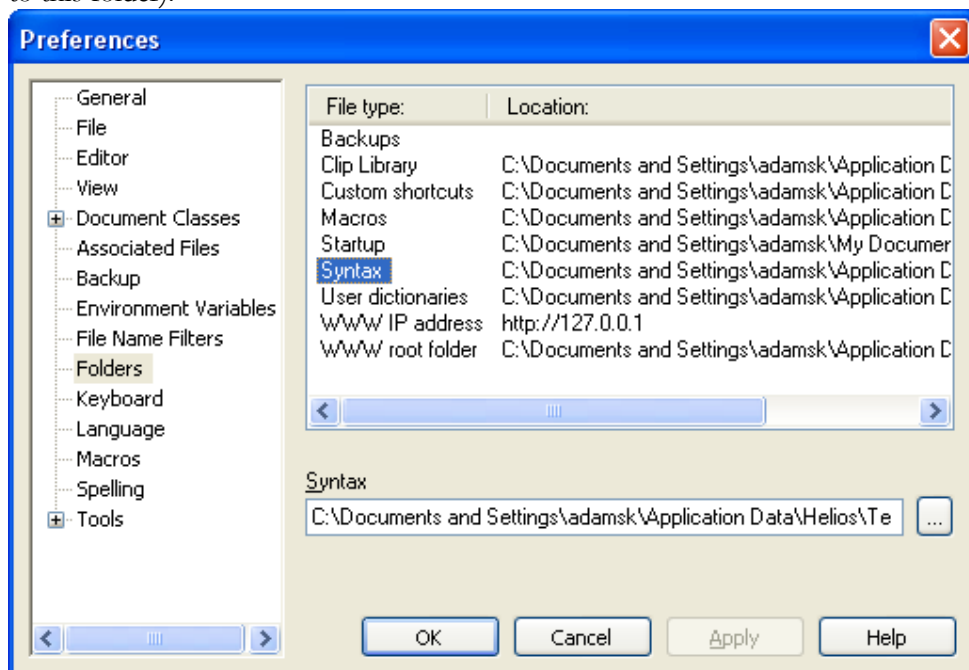

Figure 1: Setting the default syntax folder in TextPad

To enable the recognition of the keywords in the TUFLOW text files, one has to create and configure the TUFLOW document class as described below:

(a)   In TextPad select *Configure > New Document Class*.

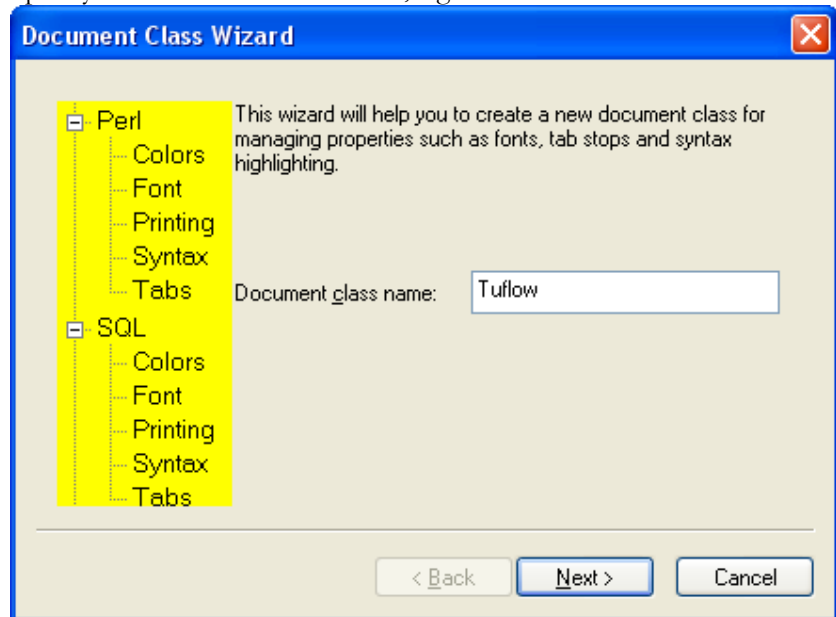(b)   Specify the Document class name, e.g. "Tuflow".

Figure 2: Creating a new document class (Tuflow)

(c)   Click Next.

(d)   On the next window specify the following class members (TUFLOW input file type extensions; use the "*" wildcard and separate with commas):
*.ecf, *.tcf, *.tbc, *.tgc, *.tmf, *.ebc, *.egf, *.rdf, *.trd, *.erd, *.elf,*.tlf, *.tef.

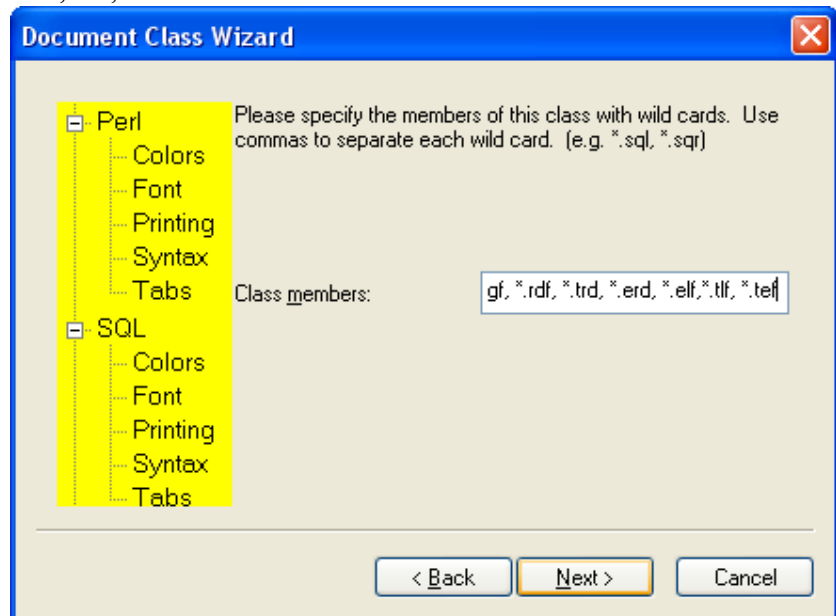**Figure 3: Setting the associated file extensions for the Tuflow document class**

(e)   Click Next.

(f)   On the next window tick the box *Enable syntax highlighting* and from the drop-down menu select the file *tuflow v*.syn*, where "*" denotes the latest revision number, currently 3. If this file does not appear in the drop-down list, please make sure that the file is present in the syntax folder as described above, or in the default folder, e.g. "*C:\Program Files\TextPad 5\system*".

(g)   Click Finish.

(h)   In order to specify the colours for the keywords, comments and numbers in your TUFLOW text files, in TextPad one needs to go to *Configure > Preferences*. Then on the Preferences window which opens in the Document Classes section among the Categories on the left, the user has to select the *Tuflow* Document Class and *Colors* section. In the Item box, the user has to click on the item *Keywords 1* and select the required text colour (e.g. blue) for *Foreground* (see Figure 4). The process should be repeated for all required items. Although it is a matter of personal preference, the recommended colour scheme (e.g. for consistency with schemes used within UltraEdit) is as follows:

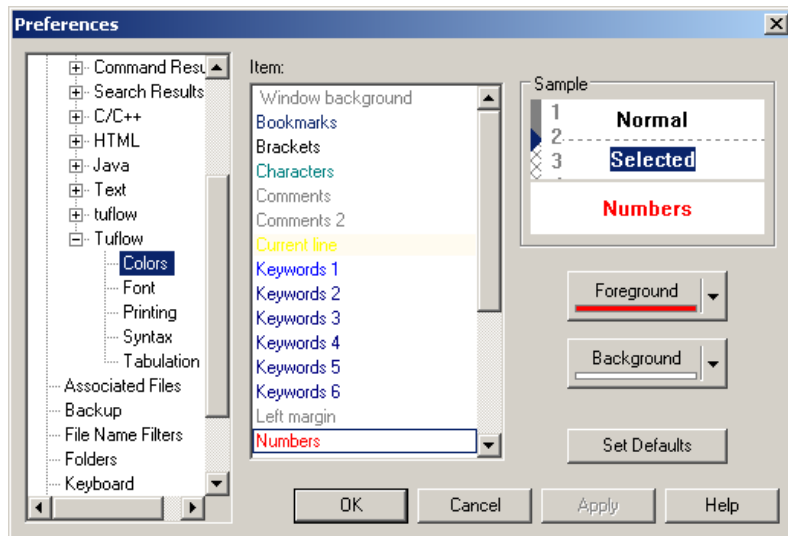| Item	Foreground Colour
Keywords 1	Blue (TextPad default)
Keywords 2 ("==" operator)	Red
Comments	Green (TextPad default)
Comments 2	Green
Numbers	Red

Figure 4: Selecting the syntax colour highlighting

       (i)   After completing these steps, click OK.

Now TextPad will syntax highlight TUFLOW text files. NB TextPad may have to be closed and re-opened for the highlighting to take effect.

Running TUFLOW and ESTRY simulations from TextPad

It is possible to run single simulations from TextPad. The benefit of running TUFLOW from TextPad is that it provides an environment where the TUFLOW control file (**.tcf*) and other TUFLOW control text files can be edited and simulations started. There is also no need to close the **.tcf* file (or other TUFLOW text file) to run TUFLOW.

To set up TUFLOW to run from TextPad:

       (a)   In TextPad select *Configure > Preferences* from the menu.

       (b)   On the Preferences window in the list on the left, select *Tools*

       (c)   Then click on the *Add* in the upper right corner, then *Program* (see Figure 5). Browse to the TUFLOW executable file name (e.g. *c:\tuflow\tuflow.exe*).
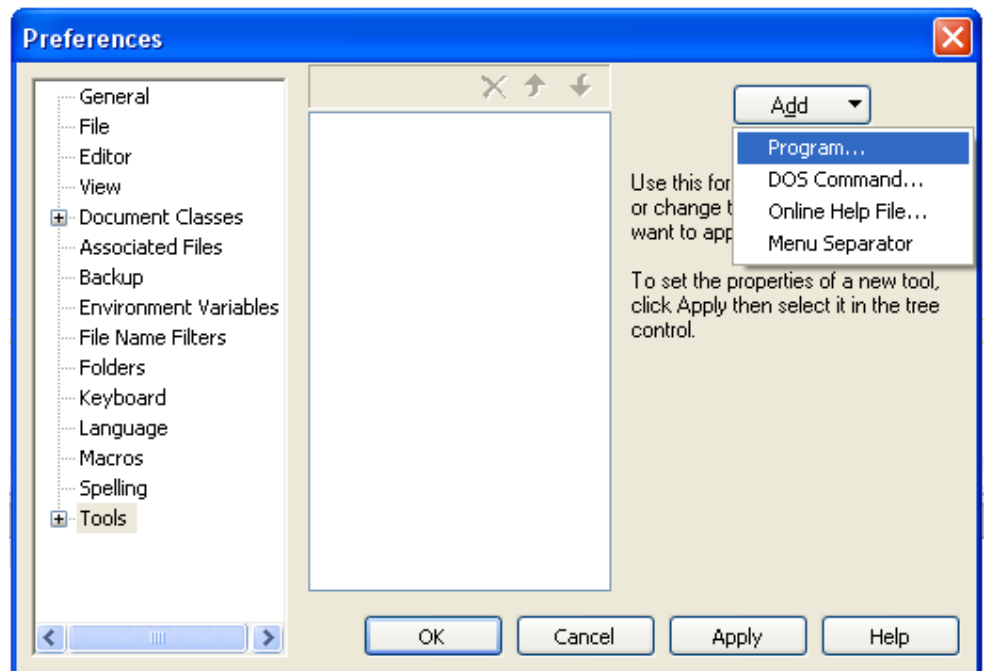
Figure 5: Adding a program to run directly from TextPad

(d)   The name of the executable (i.e. Tuflow) will then appear in the list in the middle.

(e)   Click the "Apply" button and the new tool should appear in the left part of the panel as a sub-option of *Tools*.

(f)   Click on the new tool name in the left part of the panel (you may need to expand the *Tools* item using the + button) and the right part should show the tools properties (see Figure 6).

(g)   The *Command* field should contain the full path to the executable and the name of the executable file (e.g. *C:\Tuflow\Tuflow.exe*).

(h)   Ensure that the *Parameters* field contains the text "$File" – this ensures that TUFLOW uses the currently open file (which should be the *.tcf file) as its argument – and the *Initial Folder* field contains the text "$FileDir" – this ensures that the working directory is that of the *.tcf file.

(i)   It is recommended that the *Capture Output* box should be unchecked. This ensures that TUFLOW runs in a separate console window; otherwise output would be captured in the "Tool Output" window within TextPad. It is also recommended that the *Close DOS window on exit* box be checked; otherwise the "Press any key to continue…" instruction will appear on termination of the simulation.
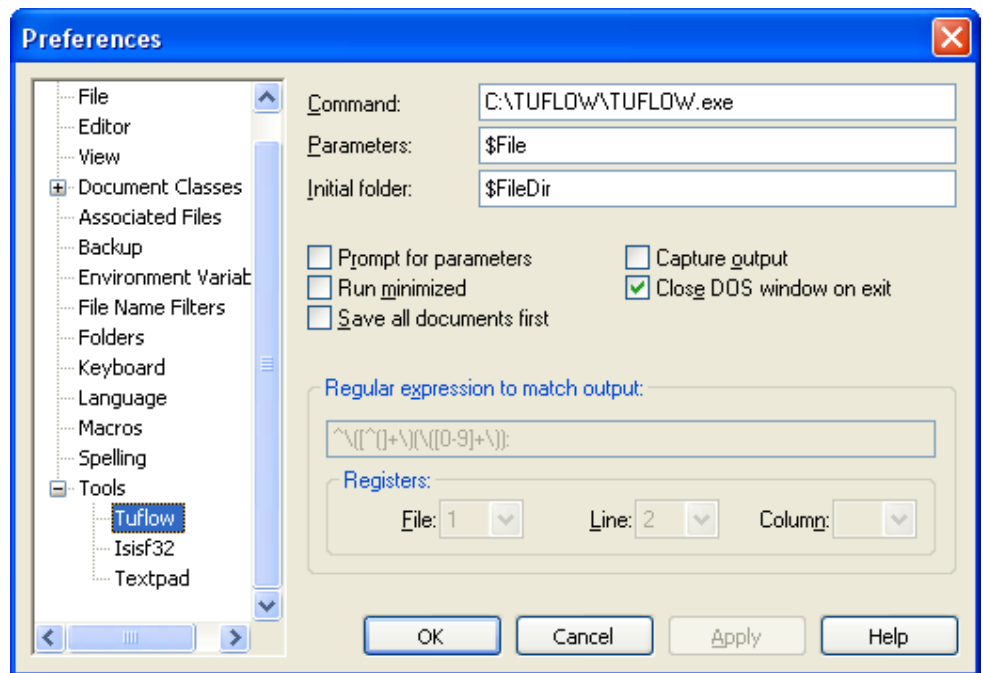
Figure 6: Configuring the program within TextPad

(j)   When all these steps are completed, one is able to run a single TUFLOW simulation by selecting *Tools > External Tools > Tuflow* from the TextPad menu, provided the respective *.tcf* file is loaded into TextPad and is the currently activated window. Also note the keyboard shortcut from the menu (e.g. Ctrl+1) to enable quicker re-use of this command.

(k)   In a similar manner as described by the steps (a) to (j) above, one can also set up the menu to run ESTRY simulations (if required). In Step (c), the user will have to select the executable *estry.exe*, which should also be located in the TUFLOW executable files folder (e.g. *C:\TUFLOW*).

Opening other files referenced in TUFLOW input files within TextPad

Another useful feature is to set up a menu to enable TextPad to open a file which is referenced in a TUFLOW text file currently open in TextPad. This path can be an absolute path (e.g. *c:\tuflow\projects\project1\model\project1.tgc*) or a relative path to the currently open TUFLOW text file (e.g. *..\model\project1.tgc*). This enables direct and quick opening of other TUFLOW text files referenced in the *.tcf* and other files. This is performed by allowing TextPad to call itself, using the required file name as its argument.

The steps needed for setting this up are therefore the same as for setting up running TUFLOW from TextPad ((a) to (j)) except that in Step (c), the user will have to browse to the TextPad.exe file (e.g. *C:\Program Files\TextPad 5\textpad.exe*), and in Step (h), in the "Parameters" field the user will have to enter "$Sel" value and make sure that none of

the tick boxes is selected (see Figure 7). This will allow the currently selected file name to be opened in TextPad.
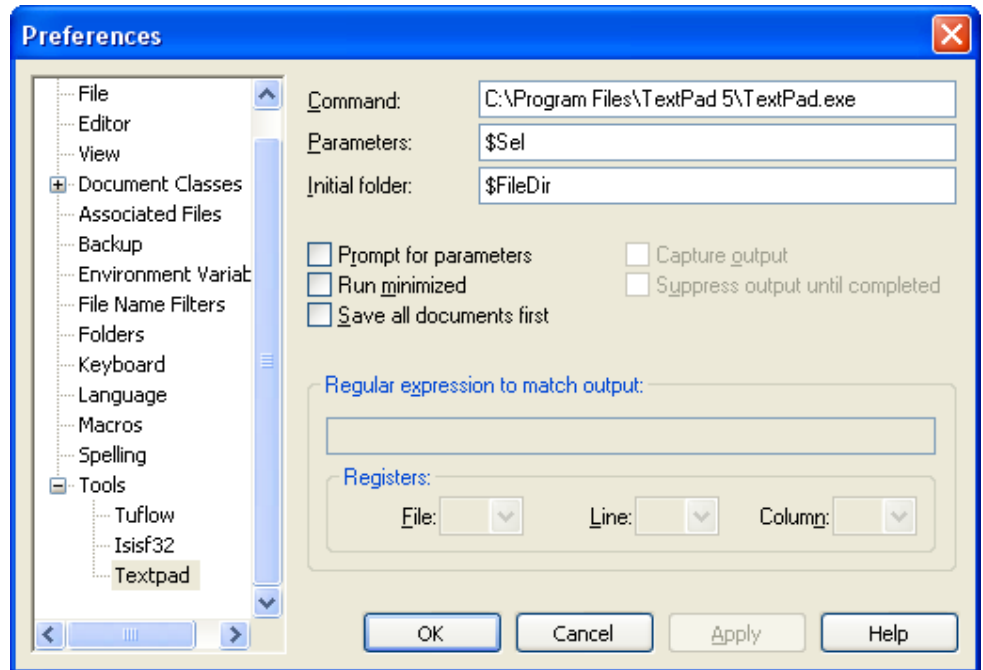

Figure 7: Configuring TextPad to open a selected file within TextPad

When the TextPad menu in the Tools menu is set up, then it will make it easier for the user to open other TUFLOW text files for editing. Having the *.tcf* (or other input file) open, the users will have to select the referenced file name and select *Tools > External Tools > TextPad* from the menu. The file selected will then open in TextPad. Again one should take note of the keyboard shortcut from the menu for quicker re-use of this command.

For example, if in the .tcf file there is typically the line "Geometry Control File == ..*model\\isis_tm01.tgc*", then in order to open the *.tgc* file referenced, the user will have to select the entire file name "..*model\\isis_tm01.tgc*" and select *Tools > External Tools > TextPad* from the menu. NB If a dialogue similar to Figure 9 appears, it means that the selection is not recognised as a valid file name. In such instances, one should normally select "No" and check that the whole file name text has been selected, or that the file specified in the dialogue exists.
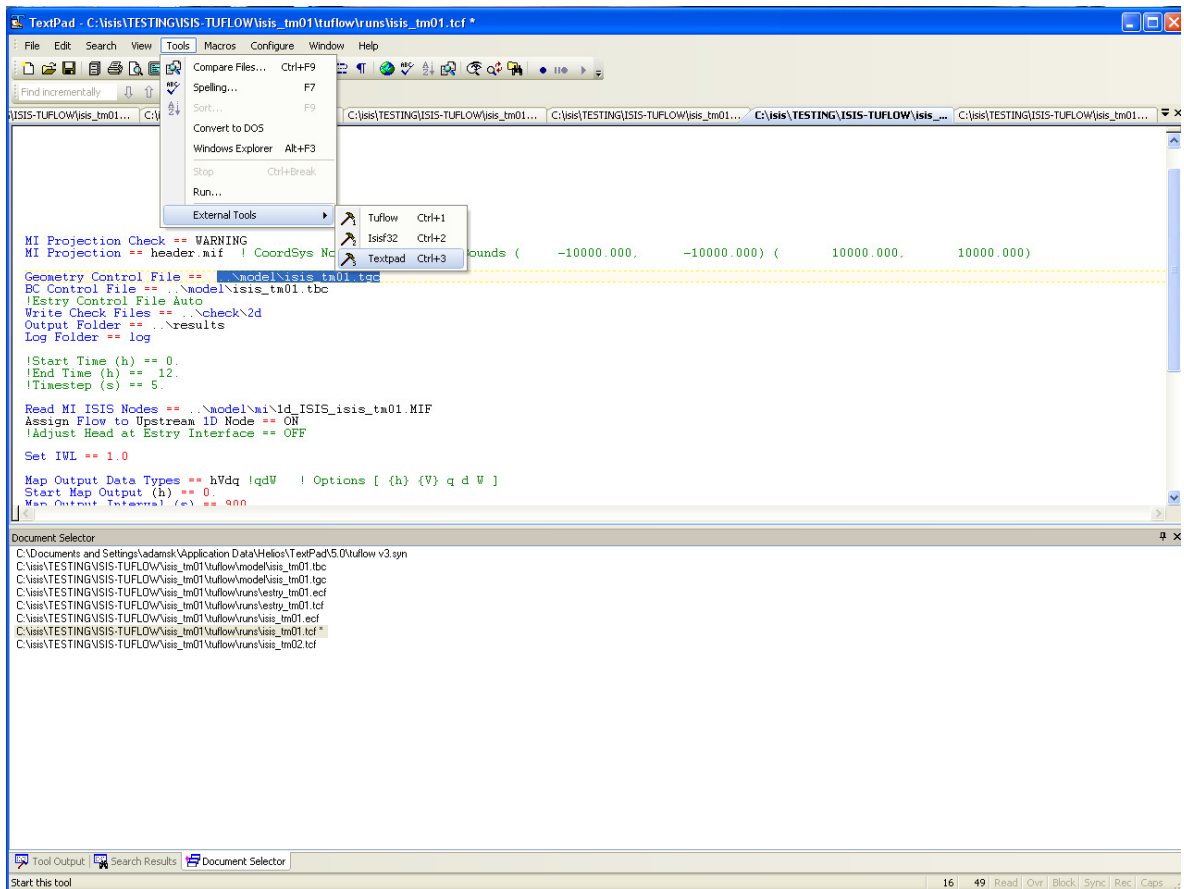
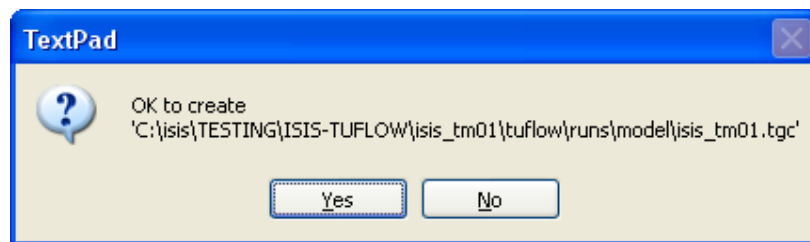**Figure 8: Opening a file referenced in another file within TextPad**

Figure 9: Dialogue indicating the selected file does not exist

Other useful TextPad tips

It is recommended to deselect the "Allow multiple instances to run" option from the *Configure > Preferences > General* menu option. This ensures that each time a file is opened, it opens in a separate tab in the current instance of TextPad, as opposed to opening a new instance. This makes it easier to navigate between currently opened files.
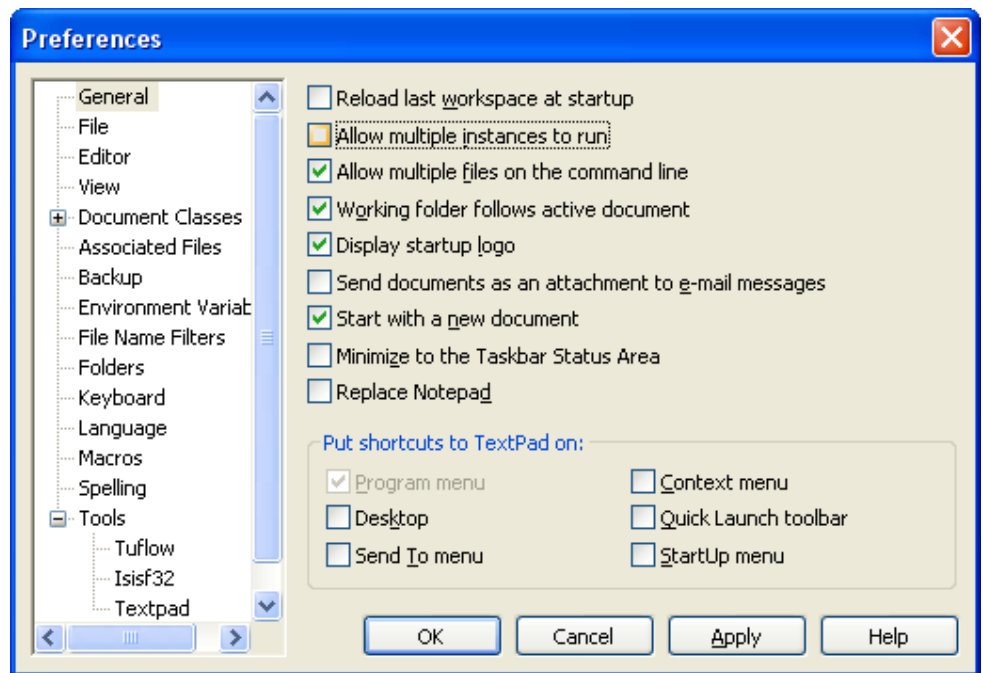
Figure 10: Ensuring all files open within the same instance of TextPad

Set up file name filters for TUFLOW input files. In order to allow TextPad to filter for TUFLOW input files when using the *File > Open* command within TextPad, one can set up file name filters. To do this, select *Configure > Preferences > File Name Filters* from the menu. Then select the *Add* button and enter "TUFLOW files" in the *Description* field, and the list of filename extensions (using wildcards and separated by semi-colons, i.e. "*.ecf;*.tcf;*.tbc;*.tgc;*.tmf;*.ebc;*.egf;*.rdf;*.trd;*.erd;*.elf;*.tlf;*.tef") in the *Wild Cards* field. Then when opening a file from the *File > Open* dialogue, select "TUFLOW files" from the *Files of type* field to apply the filter.
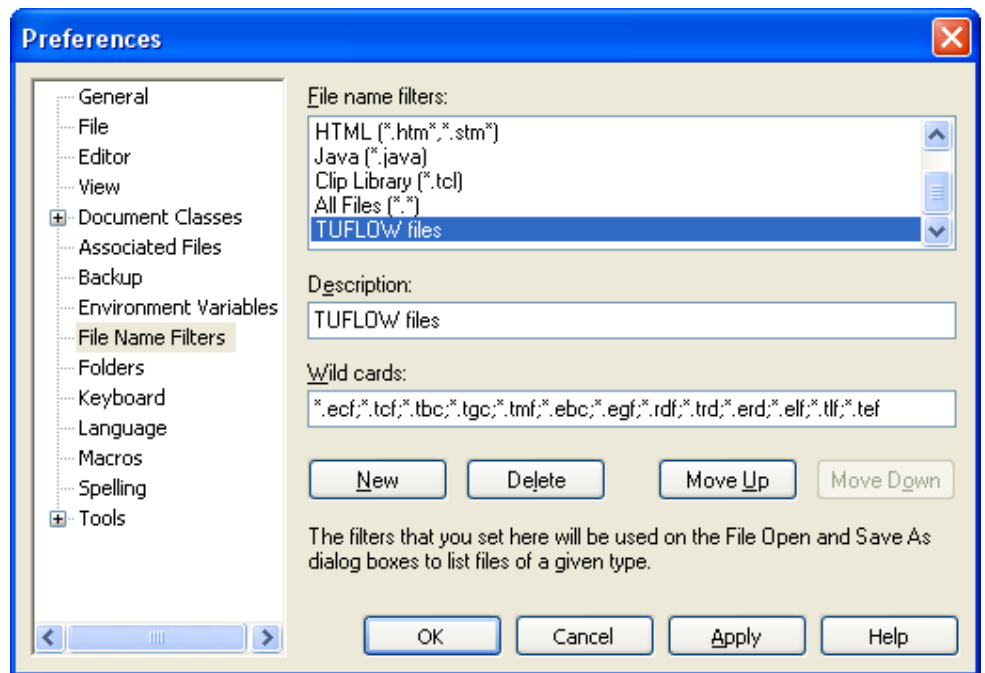
Figure 11: Setting up filters for TUFLOW input files