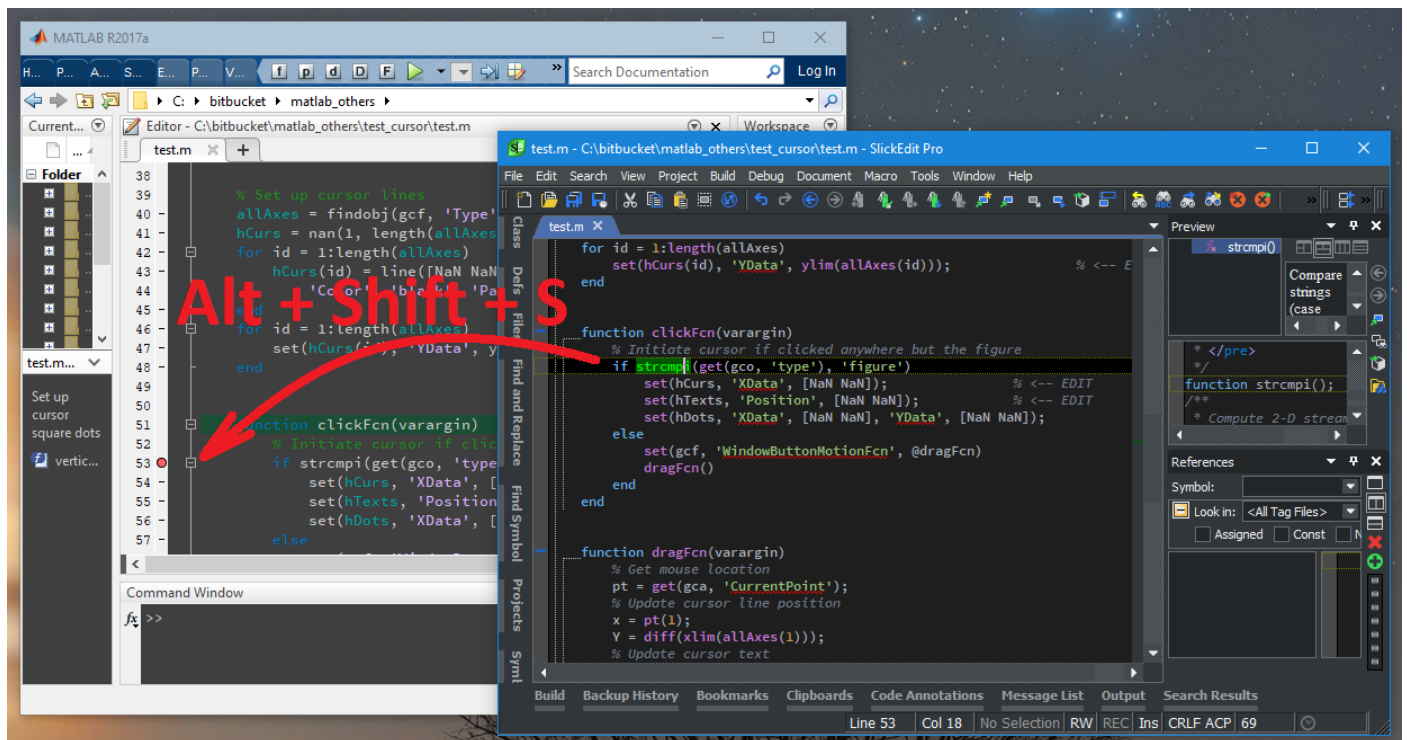# Sync Matlab to SlickEdit

This is a quick macro which simulates keystrokes to open the same file at same line in Matlab IDE as in SlickEdit.
It has two components:

1. A SlickEdit macro "syncMatlab.e" and
2. A C++ console utility "sendKeystrokes.exe" (64 bit).

Console utility

It is built with Visual Studio 2019 and it is the one which sends key events to Matlab IDE. It expects following keyboard shortcuts to be present in Matlab:

- Ctrl+Shift+0: Activate code-window (default, cannot be changed in Matlab R2017a),
- Ctrl+o: Open file,
- Ctrl+g: Go to line, and
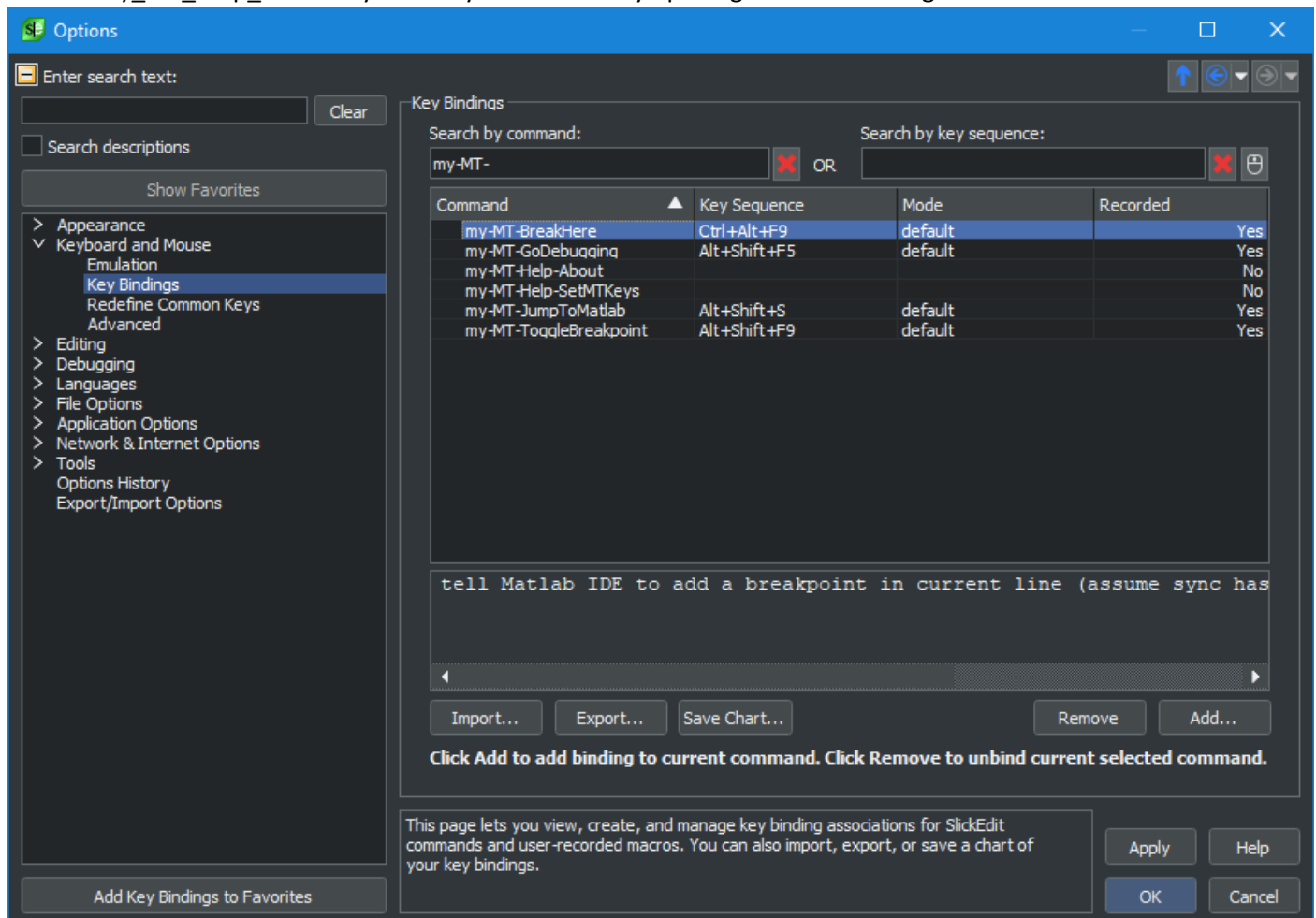- F12: Toggle breakpoint.

Command line parameters:

- sendKeystrokes.exe "C:\path\file.m" 83 BREAK "MATLAB R2017a"
  4 parameters: opens the given file ("C:\path\file.m") in requested Matlab IDE version "MATLAB R2017a", jumps to line 83, toggles also a breakpoint to that or closest line. Only this command supports specifying the title of the Matlab IDE's main window.
- sendKeystrokes.exe "C:\path\file.m" 83 BREAK
  3 parameters: opens the given file in default Matlab IDE (default "MATLAB R2017a"), jumps to line 83, sets also a breakpoint to that or closest line.
- sendKeystrokes.exe "C:\path\file.m" 83
  2 parameters: opens the given file in default Matlab IDE and jumps to line 83.
- sendKeystrokes.exe "C:\path\file.m"
  opens the given file in default Matlab IDE
- sendKeystrokes.exe GO
  tells Matlab IDE to start/continue debugging.
- sendKeystrokes.exe BREAK
  tells Matlab IDE to toggle a breakpoint to current line (assumes synchronisation was done with one of the above commands).

To build 32-bit or to do any changes, simply open attached sendKeystrokes.sln in Visual Studio Community 2019.

SlickEdit macro

Provides few macros which can be mapped to key shortcuts in SlickEdit:

- my_MT_JumpToMatlab: jump into Matlab IDE to the same file and line as in SlickEdit.
- my_MT_ToggleBreakpoint: jump into Matlab IDE to the same file and line as in SlickEdit and tries toggling a breakpoint to that line.
- my_MT_BreakHere: tell Matlab IDE to add a breakpoint in current line (assume sync has been done, see my_MT_JumpToMatlab).
- my_MT_GoDebugging: tell Matlab IDE to start/continue debugging.
- my_MT_Help_SetMTKeys: set keys in SlickEdit by opening the below dialog.

All these macros will look for the default "MATLAB R2017a" version, this is the version I use. If another version is needed, then change the console utility "sendKeystrokes.exe" accordingly.

Installation

Copy "syncMatlab.e" and "sendKeystrokes.exe" into your SlickEdit configuration directory (see it in SlickEdit menu Help -> About SlickEdit: Configuration Directory).

Open "syncMatlab.e" in SlickEdit and from menu Macro -> Load module… -> Open.

Assign keyboard shortcuts on macro loading or later by typing "my-MT-Help-SetMTKeys" on SlickEdit command line.