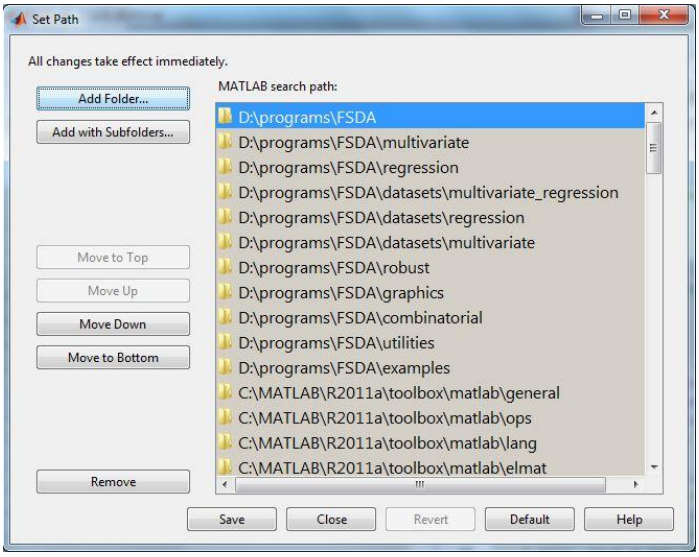
Installation notes

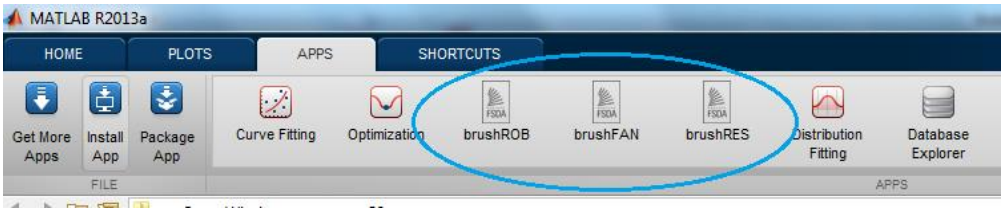
1. FSDA works from the release R2009b of MATLAB and uses the Statistics toolbox.
2. FSDA can be installed :
    a. Automatically with a setup program for Windows platforms. The installer updates your MATLAB search path and mounts the FSDA documentation pages in the `helpfiles` folder, following the layout expected by your MATLAB release.
    b. Semi-automatically on Linux platforms, by unpacking the compressed tar file `FSDA.tar.gz` under a folder of your choice (say `programs`) and by running the bash script `setupLINUX.sh`. The script, as for the setup Windows program, will update the MATLAB search path and install the FSDA documentation pages.
    c. Manually by unpacking the compressed tar file `FSDA.tar.gz` under a folder of your choice (say `programs`). Then, the search path update and documentation setup can be done by running the MATLAB scripts `addFSDA2path.m` and `setuphelp.m` that are located in the `FSDA\utilities` subfolder. The same scripts can be used at any time to repeat, if necessary, these two steps.
3. If FSDA has been installed properly (in what follows without loss of generality we assume, for example, that FSDA has been installed in folder `D:\programs\FSDA`), after the installation the **"Set Path" window of MATLAB should include the following FSDA search paths**:



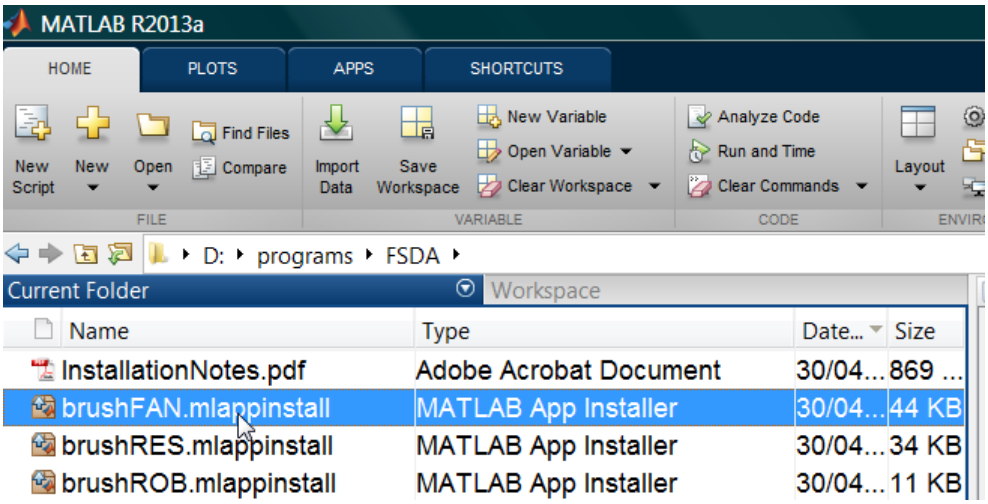
4. If there are multiple releases of MATLAB installed in your computer, our setup program will ask you to **choose to which release the FSDA Toolbox has to be associated and where** (under which folder) it has to be installed. The search path update and documentation setup are modified accordingly. However, if other MATLAB releases are present and the user intends to run FSDA also on them, the two steps should be completed manually using the already mentioned `addFSDA2path.m` and `setuphelp.m` scripts (see 2b) as follows:

```
>> addFSDA2path('D:\programs\FSDA')
>> setuphelp('D:\programs\FSDA')
```

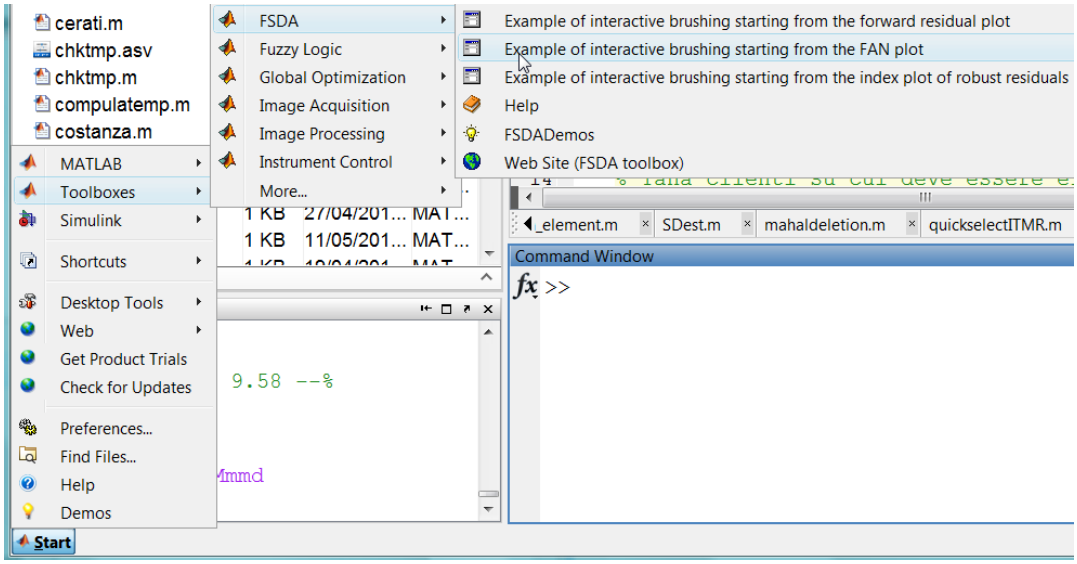
5. If FSDA is installed in MATLAB R2012b or subsequent releases, three APPS (`brushRES`, `brushFAN` and `brushROB`) are automatically installed:



Remark: if the three apps have not been automatically installed, you can easily install them manually double clicking on the files `brushFAN.mlappinstall`, `brushRES.mlappinstall` and `brushROB.mlappinstall` contained in the root folder of FSDA.

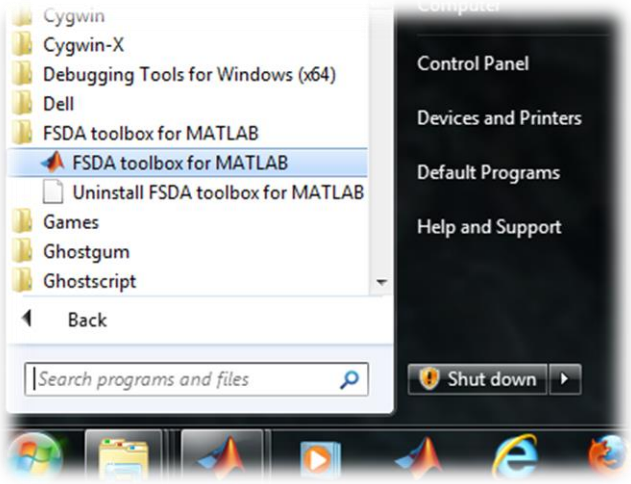


If FSDA in installed in MATLAB 20212a or earlier the three apps appear inside `MATLAB Start button|Toolboxes|FSDA`.



These APPS are graphical user interfaces conceived to demonstrate some functionalities of FSDA.

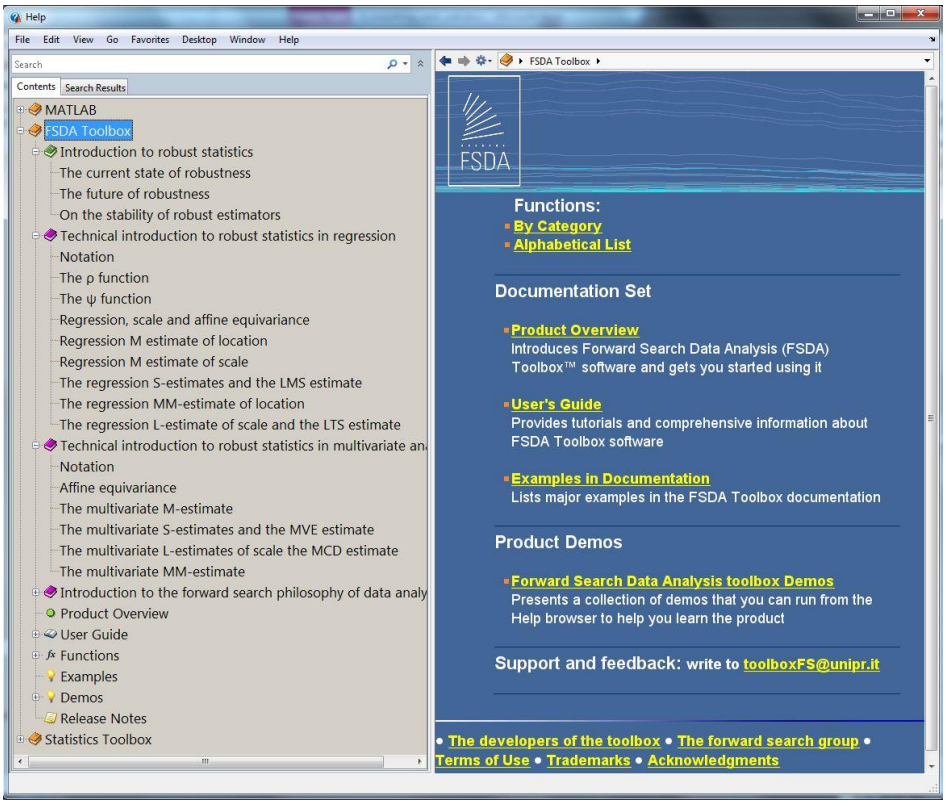
6. Our setup program, if successfully executed, adds to the "Program Files" Windows Menu the entry "FSDA toolbox for MATLAB", including a **FSDA uninstall program** that should be used by the user to remove an obsolete FSDA release, before an update:



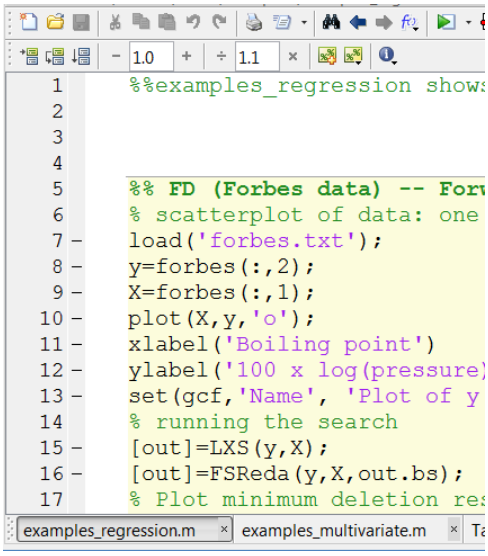
7. Nonetheless, to avoid problems that may occur if FSDA is installed with our setup program more than once, the setup program tries to locate and remove (with the agreement of the user) previous FSDA installations. Of course, your personal copies of FSDA folders not included in `D:\programs\FSDA` will not be affected.

8. If everything went well with an automatic or manual installation, when you open MATLAB:

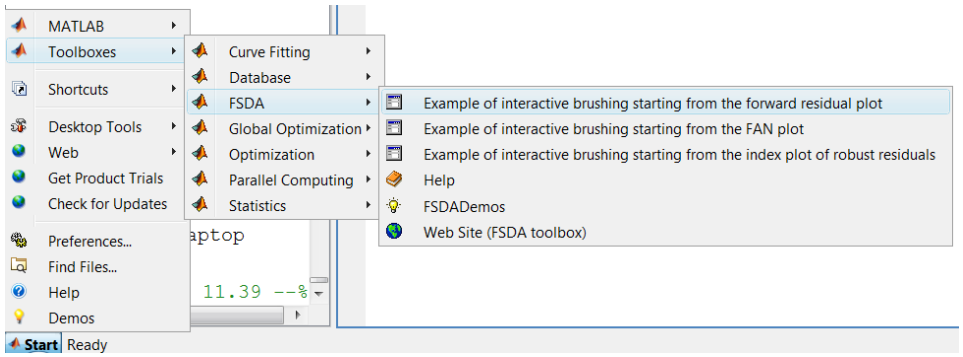
   a. **The MATLAB "Help" pages should include FSDA with all its submenus, as shown here:**



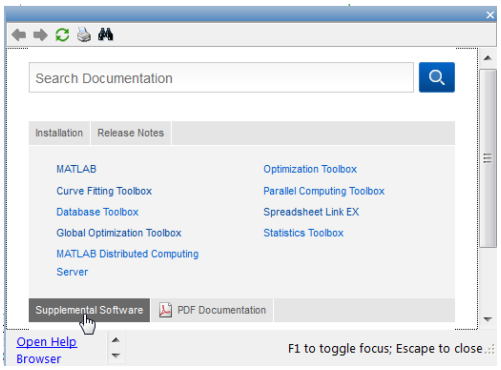
b. **With the setup installer, two example files named "examples_regression.m" and "examples_multivariate.m" should be opened automatically.** These files contain a series analysis of several well known datasets in the literature of robust statistics and have the purpose to let the user familiarize with the toolbox**.**

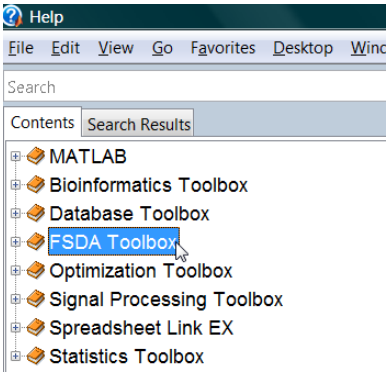


c. **FSDA should appear among the installed "Toolboxes" in the MATLAB "Start Menu" (only for MATLAB releases before R2012b)**

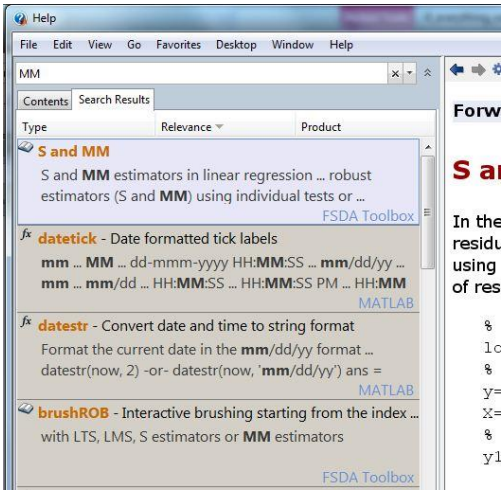


d. **For those who use MATLAB R2012b+ the html help files can be found in the Supplemental Software tab which appears at the bottom of the Doc Center home page** (see left panel of screenshot below)**. Those who use releases of MATLAB earlier than 2012b can find the documentation in the same place as all the other official Mathworks toolboxes** (see right panel of screenshot below):

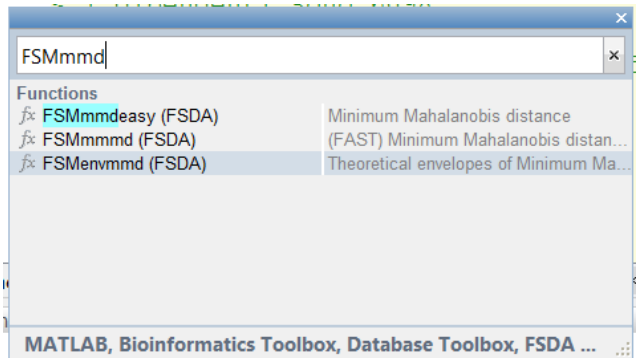




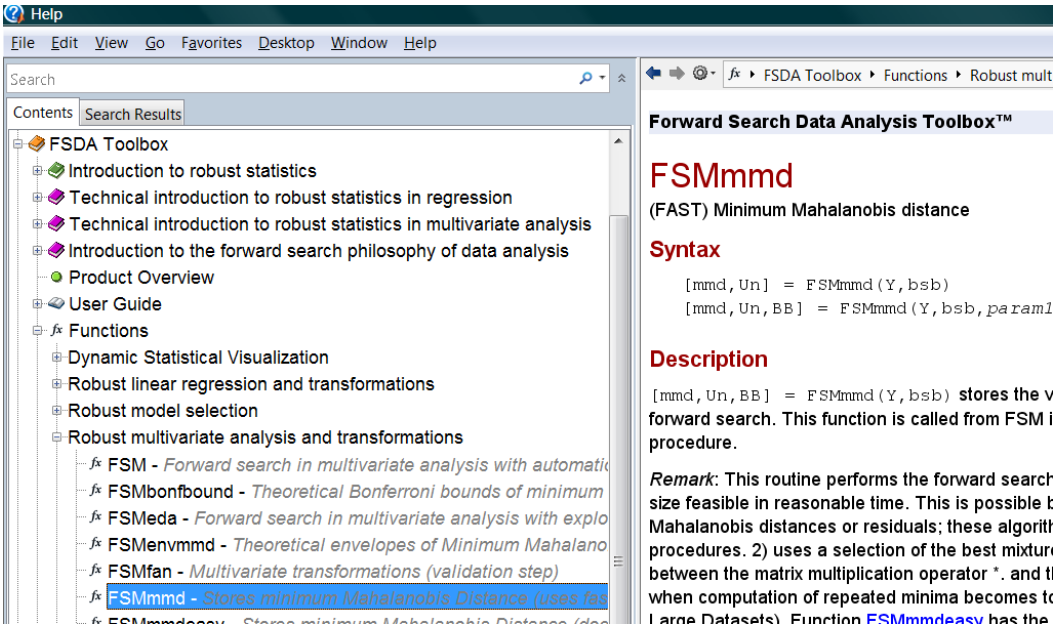
e. **If you search for a FSDA function in the MATLAB Help Browser, you should get results as in this example " (all releases of MATLAB)**:



f. In the MATLAB function browser (SHIFT+F1), all FSDA functions can be immediately found (only for MATLAB releases lower than R2012b). For example if in the function browser you type `FSMmmd`, this is what you should get



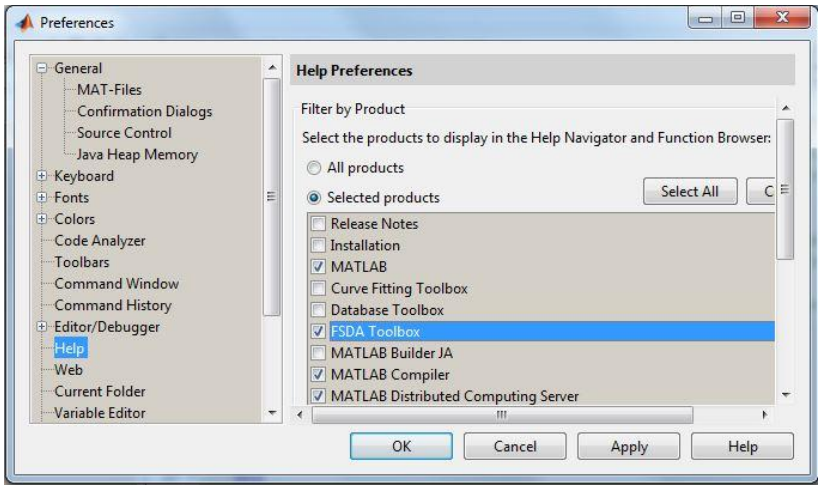
Similarly, using MATLAB releases lower than R2012b typing for example `doc FSMmmd` (or `docsearch FSmmmd`) you should automatically see the associated HTML documentation of the function.



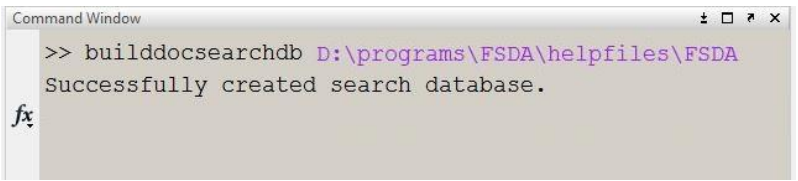
Unfortunately, from release R2012b `docsearch` does not search custom documentation. As far as we know the only one possible way to go directly to the HTML documentation of third parties toolboxes is to use the undocumented option `-classic` as follows `docsearch -classic`

9. If you think that the MATLAB Help Browser is not producing proper search results for FSDA functions (like those in Figure 7.e and 7.f):

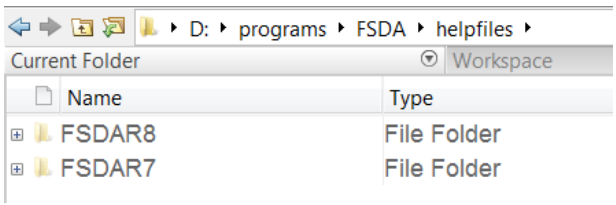
   a. **Check first that in the MATLAB Help Preferences FSDA is selected, as here (only for lower than R2012b):**



   b. If it is selected but FSDA functions are never referenced in the search results, **it is likely that some internal index file is corrupted or its encoding is not appropriate for your operating system platform.** In this case, to rebuild the index file, it is sufficient to run the MATLAB `builddocsearchdb` command, as shown here:



Remark: if in the help system you cannot find the FSDA toolbox or you see two duplicate FSDA toolbox instances it is possible that FSDA is installed in a position where you must have administrator privileges. In this case if you find that inside `D:\programs\FSDA\helpfiles`, two subfolders `FSDAR8` and `FSDAR7` remained.



If you use MATLAB 2012a or earlier rename `FSDAR7`, `FSDA` and delete folder `FSDAR8`. Alternatively, if you use MATLAB 2012b or later rename `FSDAR8`, `FSDA` and delete `FSDAR7`. Our routine `setuphelp('D:\programs\FSDA')` does in automatic way, what has just been described.

IF YOU THINK THAT SOMETHING NOT DESCRIBED IN THESE NOTES WENT WRONG

PLEASE DO NOT HESITATE TO SEND AN E-MAIL TO

`toolboxFS@unipr.it`[1]

[1] The developers of the toolbox are grateful to Dr. Patrizia Calcaterrra for the precious support in many development phases of our toolbox. The logo of the toolbox has been designed by Dr. Massimiliano Gusmini.