Quickstart  
  
1. Clone or download (and extract) the source from github: <https://github.com/UMCU-RIBS/Palmtree>

2. Open AllProjects.sln in Visual Studio 2017 or higher

3. Set a startup project in Visual studio:

* The CursorTask project is an example where the input signal amplitude is used to provide continuous input control for the application
* The MoleTask project is an example where the input signal from the source is translated to “brain-clicks”, much in the way patients use it
* The EmptyTask project might be a good starting point to build your own task, only the minimum has been setup, ready for you to build upon. Be aware that you might want to adjust the <app>.config so the task - by default - includes only the filters you need.

4. Run the project in Visual Studio

5. A popup will show asking you which source module to use:  
 *Note: the source module can be set automatically either by passing a command-line argument   
 or by setting the source in the .config file (app.config in the source; <appname>.config>   
 for build). See “Palmtree – User documentation” for more details.*

* GenerateSignal: generates a random signal as input to the pipeline  
  *Note: Because the signal is current generated by the source module on the same thread as  
   on which it is processed, it is recommended to stay under 800Hz. This limitation is   
   imposed by this specific source module, the pipeline can easily process much higher   
   numbers of samples (up to 1.000.000 samples per second), see the performance test   
   document.*
* KeypressSignal: generate a base signal where keypresses change the signal to a different value. Handy for testing and recommended when running “brain-click” tasks.

6. Click the “Edit configuration” to adjust settings on Data storage (where and what is stored), The source-module, the filter-modules and the application-module.

7. Click the “Set configuration and Initialize” button to apply the configuration and initialize the modules. Each module’s settings and the logic of the pipeline will be checked. If errors occur, they will be shown in the console in red and the modules will not continue to be initialized; Upon success, all modules will be initialized and your program is ready to start running.

8. Click the start-button to start a run. Click the stop-button to stop a run. Each run (start of the task) will have it’s own data output files (source data, filter pipeline data, events data)