

# About the Workflow Designer

The *Workflow Designer* allows a molecular biologist to create and run complex computational workflow schemas even if he or she is not familiar with any programming language.

The workflow schemas comprise reproducible, reusable and self-documented research routines, with a simple and unambiguous visual representation suitable for publications.

The workflow schemas can be run both locally and remotely, either using a graphical interface or launched from the command line.

The elements that a schema consists of corresponds to the bulk of algorithms integrated into UGENE. Additionally, you can create custom workflow elements.

The screenshot displays the UGENE Workflow Designer interface. The main window is titled "UGENE - [Workflow Designer - Build HMM from alignment and test it]". The interface includes a menu bar (File, Actions, Settings, Tools, Window, Help), a toolbar, and a "Project" sidebar on the left. The central workspace shows a workflow diagram with the following steps:

- Read alignment**: Reads MSA(s) from `HIV-1aln`.
- Multiple sequence alignment**: A connector element.
- HMM build**: build and calibrate HMM profile using default settings.
- Read sequence**: Reads sequence(s) from `human_T1.fa`.
- Sequence**: A connector element.
- HMM search**: search HMM signals. Use default settings. Output the list of found regions annotated as `hmm_signal`.
- Write HMM profile**: result.hmm.
- HMM annotations**: A connector element.
- Write Genbank**: Write sequence(s) from For each sequence from `Read sequence` and set of annotations from `HMM search`, `Read sequence` in Genbank format, to `signals.gb`.

The right sidebar contains a "Property Editor" for the selected "HMM search" element. It includes a description, a "Parameters" table, and sections for "Input data" and "Output data".

Name	Value
Filter by high E-value	1e-1
Result annotation	Hmm_signal
Filter by low score	-1000000000.0
Number of seqs	1

**Filter by high E-value**: E-value filtering can be used to exclude low-probability hits from result

At the bottom of the window, there are "Tasks" and "Log" buttons, and a status bar indicating "No active tasks".