HMM2 Build Element

Builds a HMM profile from a multiple sequence alignment. The HMM profile is a statistical model which captures position-specific information about how conserved each column of the alignment is, and which residues are likely.

Element type: hmm2-build

Parameters

Parameter	Description	Default value	Parameter in Workflow File	Туре
Profile name	Descriptive name of the HMM profile.		profile-name	string
HMM strategy	Specifies the kind of alignments you want to allow.	hmmls	strategy	numeric Available values are: O for h m ms 1 for h m mls 2 for h m mfs su
Calibrate profile	Enables/disables optional profile calibration. An empirical HMM calibration costs time but it only has to be done once per model, and can greatly increase the sensitivity of a database search.	True	calibrate	boolean
Parallel calibration	Number of parallel threads that the calibration will run in.	1	calibration- threads	numeric
Standard deviation	Standard deviation of the synthetic sequence length. A positive number. Note that the Gaussian is left-truncated so that no sequences have lengths.	200.0	deviation	numeric
Fixed length of samples	Fixes the length of the random sequences to, where is a positive (and reasonably sized) integer. The default is instead to generate sequences with a variety of different lengths, controlled by a Gaussian (normal) distribution.	0	fix-samples- length	numeric
Mean length of samples	Mean length of the synthetic sequences, positive real number.	325	mean- samples- length	numeric
Number of samples	Number of synthetic sequences. If is less than about 1000, the fit to the EVD may fail Higher numbers of will give better determined EVD parameters. The default is 5000; it was empirically chosen as a tradeoff between accuracy and computation time.	5000	samples-num	numeric
Random seed	The random seed, where is a positive integer. The default is to use time() to generate a different seed for each run, which means that two different runs of hmmcalibrate on the same HMM will give slightly different results. You can use this option to generate reproducible results for different hmmcalibrate runs on the same HMM.	0	seed	numeric

Input/Output Ports

The element has 1 input port.

Name in GUI: Input MSA

Name in Workflow File: in-msa

Slots:

Slot In GUI	Slot in Workflow File	Туре
MSA	msa	msa

And 1 output port.

Name in GUI: HMM profile

Name in Workflow File: out-hmm2

Slots:

Slot In GUI	Slot in Workflow File	Туре
HMM profile	hmm2-profile	hmm2-profile