



## HMMP

### HORIBA Multi-Model Predictor Tool

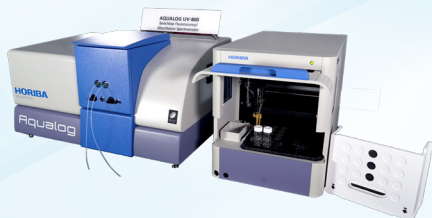
ELEMENTAL ANALYSIS
FLUORESCENCE
GRATINGS & DEM SPECTROMETERS
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RAMAN / AFM-RAMAN / TERS
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SPR IMAGING



Facilitates batch multivariate Aqualog® A-TEEM™ analyses for industrial QA/QC applications

#### Introducing the NEW HMMP tool for easy batch regression and discrimination analysis of Aqualog A-TEEM data

HORIBA's patented A-TEEM molecular fingerprinting is an ideal optical technique for product characterization involving



Aqualog A-TEEM Spectrometer with FAST-01 Autosampler

component quantification and identification. The HMMP Add-In tool, powered by Eigenvector Inc. Solo, ideally complements the A-TEEM by supporting the development and batch wise application of methods for an unlimited number of component regression models as well as discrimination models. The HMMP breaks the time- and labor-consuming barrier of analyzing individual models and collating results into a cohesive report to meet the requirements of industrial QA/QC applications. The HMMP tool facilitates administrator level method model development but more importantly push-button operator-level application and report generation.

The HMMP tool is exclusive to the Aqualog A-TEEM and supports enhanced model robustness by combining the absorbance and fluorescence excitation-emission matrix (EEM) data using the Solo Multiblock Model tools! HMMP incorporates a direct, exclusive link to the Aqualog's batch file output directory for trouble-free file browsing and automatic concatenation of absorbance and EEM data as well as all model-dependent pre-processing.

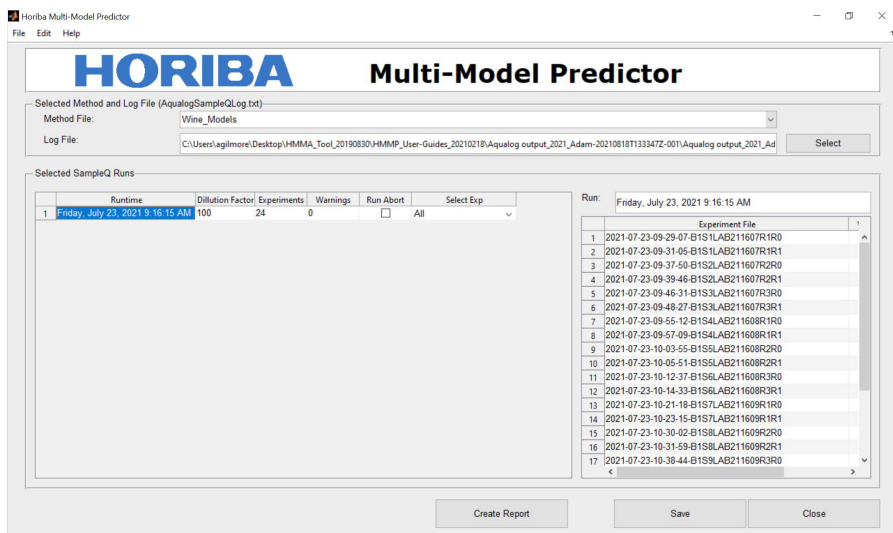
The HMMP tool mates seamlessly with data collected using the Fast-01 autosampler as well as any other sampling method that employs the Aqualog SampleQ toolbox.

The HMMP tool supports an unlimited number of regression models in a given method to provide comprehensive reports of all parameters of interest. Discrimination model methods with multiple class groups are also supported to facilitate product characterization as functions of unique compositions and component or contaminant threshold concentrations among other QA/QC scenarios. The HMMP tool can employ a wide range of algorithms for discrimination and regression including Principal Components Analysis (PCA), Partial Least Squares (PLS), Artificial Neural Networks (ANN), Support Vector Machine (SVM) and Extreme Gradient Boost (XGB).

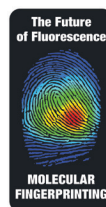
Key applications supported include wine quality chemistry, water contamination and pharmaceutical product identification and composition among many others.

#### Key Features and Benefits

- Easy, Rapid Operator Level Analysis
- Facilitated Administration of Method Model Development and Editing
- Complete Parameter Profile and Classification Reports
- HMMP Add-In Fully Integrated into Eigenvector Inc. Solo/Solo+Mia and Exclusively Activated and Supported by HORIBA Instruments Inc.
- HMMP Reports include all required parameter information and are saved in a comma separated format for LIMS system compatibility.
- The HMMP tool is provided with ample online Help support powered by the Eigenvector Inc. Wiki platform and HORIBA's fully featured user manual.



The HMMP user interface facilitates method development and selection, fully articulated data file browsing with data integrity warnings and push-button report generation.



To learn more about the A-TEEM molecular fingerprinting technique, applications and uses of this autosampler, refer also to [www.A-TEEM.com](http://www.A-TEEM.com)



Powered by Solo Predictor software from Eigenvector Research, Incorporated

## HMMP Specifications

Parameter	Specification
Software and System Requirements	Eigenvector Solo or Solo+Mia v8.9.2 or greater (Add-in Included). HMMP Add-In Activation License Code Provided by HORIBA Instruments Inc. Aqualog Software Version v4.3 or greater
Method File Security	Password Protected Method Generation and Editing
Operator Level Access	Select Method, Browse for Aqualog Sample Q Log files, Select Runs and Experiment, Create and Save Report files
HMMP Error Trapping/Reporting	Aqualog detector saturation, Sample Q Run aborted
Aqualog Data Model Format Requirements	Multiblock Model format: Concatenated Absorbance and Processed EEM variable block
HMMP Data Browsing Features	Browser exclusively limited to parsing individual Aqualog Sample Q log files Selectable Sample Q Batch Run(s) and Individual Experiments within Run(s)
Solo Regression and Discrimination Algorithms Supported	Partial Least Squares (PLS) Principal Components Regression (PCR) Soft Independent Modeling by Component Analogy (SIMCA) Support Vector Machine (SVM) Extreme Gradient Boost (XGB) Principal Components Regression (PCR)
Discrimination Method Model Number Limits	One discrimination model per method/Unlimited Class Groups in model
HMMP Data Output	Comma Separated Text File (*.csv). Compatible with LIMS system coordination.
HMMP User Documentation	Horiba HMMP User Manual (PN 5700034697) HMMP Wikipage: <a href="https://www.wiki.eigenvector.com/index.php?title=Horibamultimodelpredictor">https://www.wiki.eigenvector.com/index.php?title=Horibamultimodelpredictor</a>

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