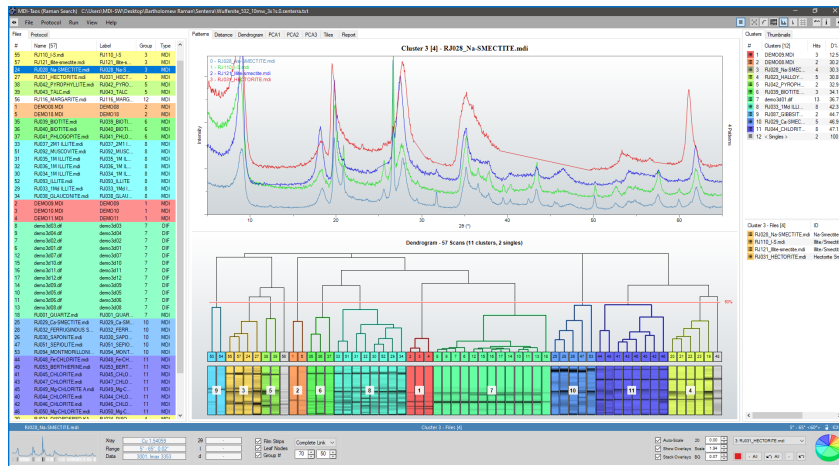# JADE Pro
JADE Pro is all-inclusive!

JADE Pro includes all of the features of JADE Standard, plus batch processing Whole Pattern Fitting (WPF) and Rietveld refinement tools that go beyond what is available in JADE Standard. JADE's One-Click-Analysis™ and the JADE Toolkit are only found in JADE Pro. Additionally, JADE Pro features a unique floating network license that allows access on one concurrent system at a time, so when a license is not in use, it is available to someone else in your organization. Discounted additional seats create access to more concurrent shareable licenses that work together.

🔑 KEY POINTS

- All-inclusive - Everything in JADE Standard and so much more
- Phase ID (Search/Match)
- Batch processing Whole Pattern Fitting (WPF) and Rietveld
- One-Click-Analysis™ for Whole Pattern Fitting (WPF)
- Pattern Indexing (All Crystal Systems)
- Rietveld Structure Refinement (Atomic Parameters)
- Ab Initio Tools (Charge Flipping +)
- Cluster Analysis of Powder Patterns
- Hardware Independent - supports a wide range of diffractometers
- Floating Network License - can work as a shareable multi-seat license
- Discounted Additional Seats Available

3 NEW TOOLKIT FEATURES
Toolkit is found only in JADE Pro

Toolkit has expanded its feature set!

BFDH Morphology ▲

Create predicted crystal shapes based on the Bravais-Friedel-Donnay-Harker model. Other options include ability to promote the presence of certain (hkl)-faces by applying XRD multipliers from calculated structure intensities or calculating a Scherrer shape from fitted profiles.
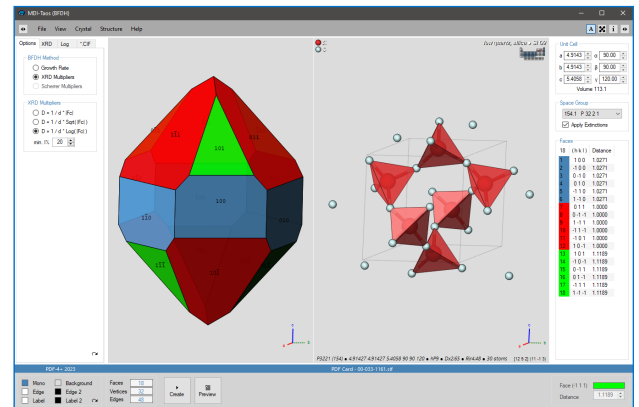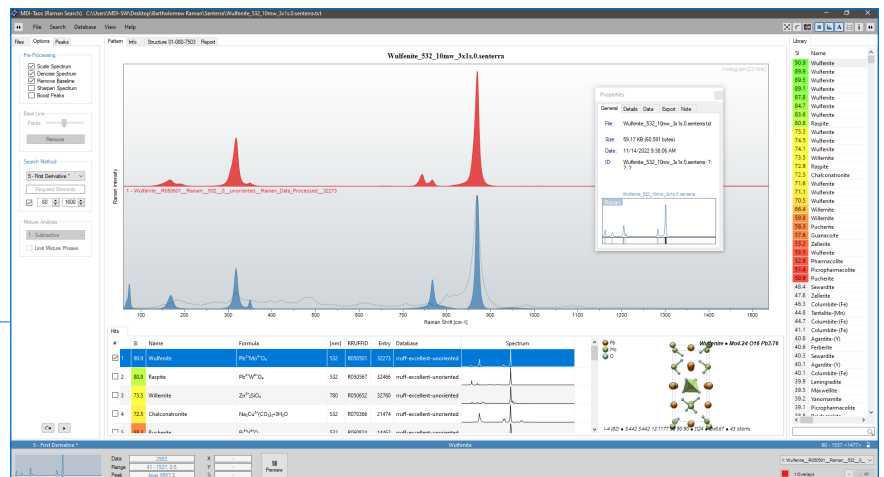

Dendrogram▲

View your clusters with automatic cluster color coding. You can now streamline your analysis by adding reference patterns as cluster markers, recalling setup protocols for reproducibility and other correlation functions for determining pattern similarities.

RAMAN Mineral ▶

Designed for the mineral phase ID from Raman Stokes spectra. Whole spectra correlation functions are used for finding similarity matches for single-phase and multi-phase spectra.

ADDITIONAL TOOLKIT FEATURES

Toolkit is found only in JADE Pro

Toolkit also includes these utilities designed for JADE.

For Oriented Clays - ClaySim ▶

For (00l)-patterns. Performs simulations and analyses of oriented clays based on structure types introduced by R.C. Reynolds.

XRD Digitizer

Take a picture of an XRD plot and this tool will convert it to a digital format that you can now work with in JADE. Use advanced image editing options to tweak any imperfections or remove artifacts from your image.
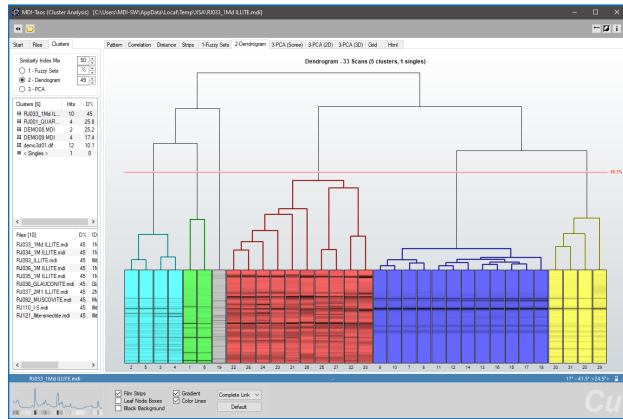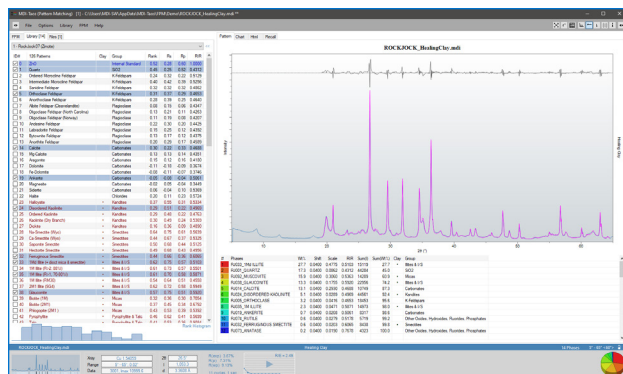

Cluster Analysis ▲

Offers hierarchical Dendrogram Clustering with Principal Component Analysis in addition to Fuzzy Clustering.

Charge Flipper + Solve Structure

For structure solution using the charge flipping method.

Pattern Matching ▲

Try the fulll Pattern Matching method used in ROCKJOCK and ClaySim.
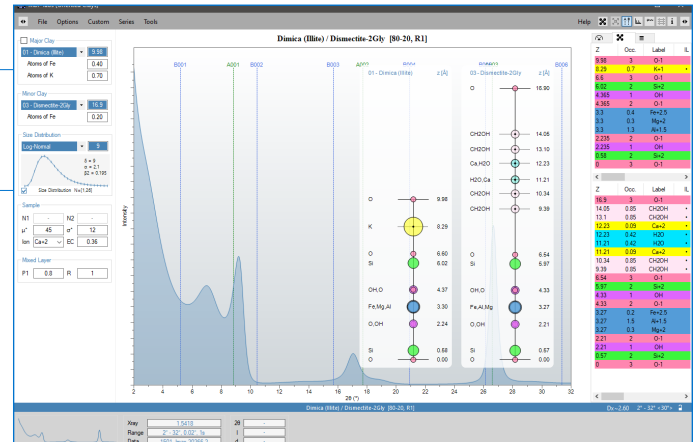
Regression Analysis

Perform regression analysis on data without leaving JADE Pro's Toolkit.

3D Scatter Plot

A scatter plot tool for xyz data sets from columnar data files.

Laue Visualization ▶

Laue simulations, stereographic projections and alternative structure visualizations. This tool also exports multi-page Adobe PDF booklets.

Microstructure Tool

Provides methods for the analysis of the residual stress and microstructure defects for various diffraction geometries and is applicable to cubic phases (FCC, BCC) following a profile fitting in JADE (D. Rafaja).

MDI SizeStrain

Designed for crystallite size and micro-strain analysis using X-ray powder diffraction data. This Toolkit supports both Warren-Averbach and Williamson-Hall methods for crystallite size determination.

Simulated Annealing ▶

An alternative direct space structure solution method (SA) designed for inorganic structures applying Coulomb interactions and repulsive potentials.

Area Detector Tool ▼

Built to extract powder patterns from images obtained with flat area detectors, so that they can easily be analyzed in JADE.