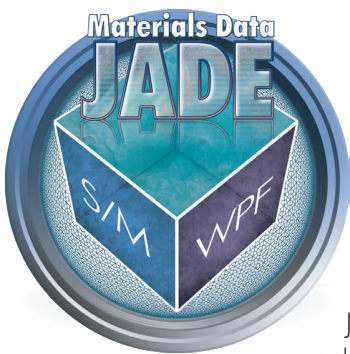


JADE® ANALYSIS SOFTWARE



JADE Pro

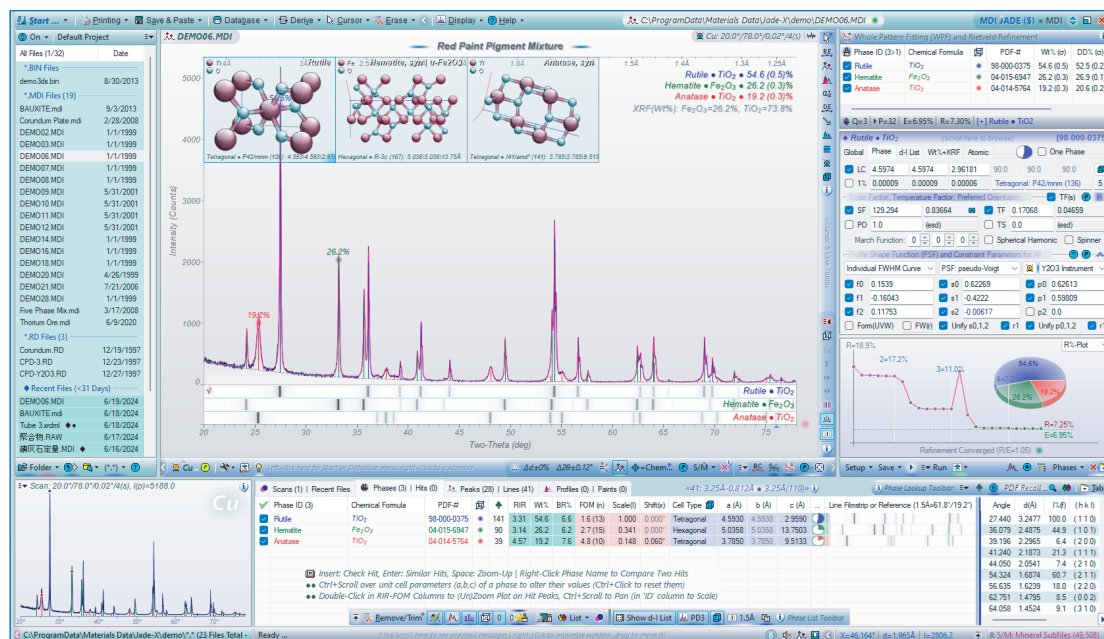
JADE Pro is all-inclusive!

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 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



Toolkit is found only in JADE Pro

ED-XRF

For manual or automatic identification of elements and minerals.

XRD Digitizer

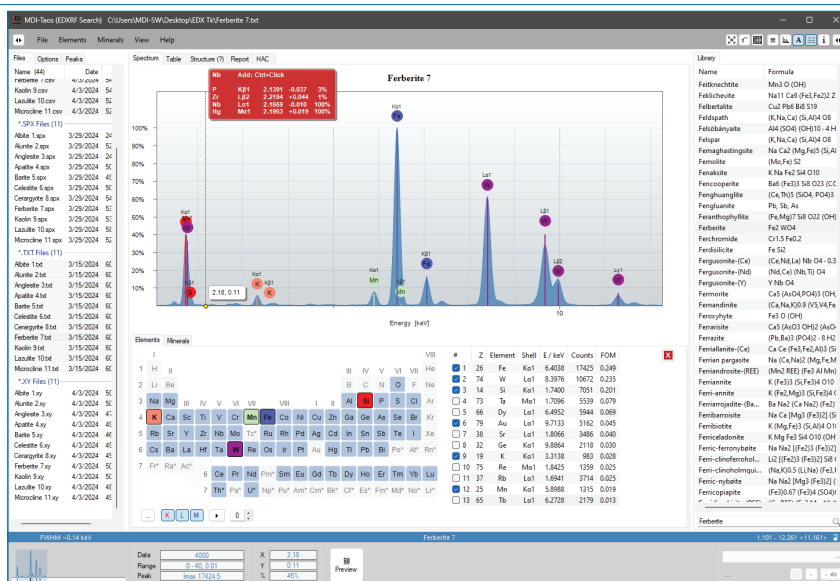
Take a picture of an XRD plot and this tool will convert it to a digital format that you can now work with in JADE. Use advanced image editing options to tweak any imperfections or remove artifacts from your image.

Charge Flipper + Solve Structure

For structure solution using the charge flipping method.

Regression Analysis

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



JADE Standard

JADE Standard provides a more limited set of tools than JADE Pro, but without the annual updates and renewal costs.

Available in three levels -

1. Basic Level
2. Add either Phase ID (S/M) or WPF + Rietveld
3. Add both Phase ID (S/M) and WPF + Rietveld

Included with all levels of JADE Standard -

Simulation and Visualization - Simulate powder patterns to create your own custom database. Visualize a structure in 3D with motion. Visual cues throughout to better help you and your team understand the materials you are analyzing.

KEY POINTS - ALL LEVELS

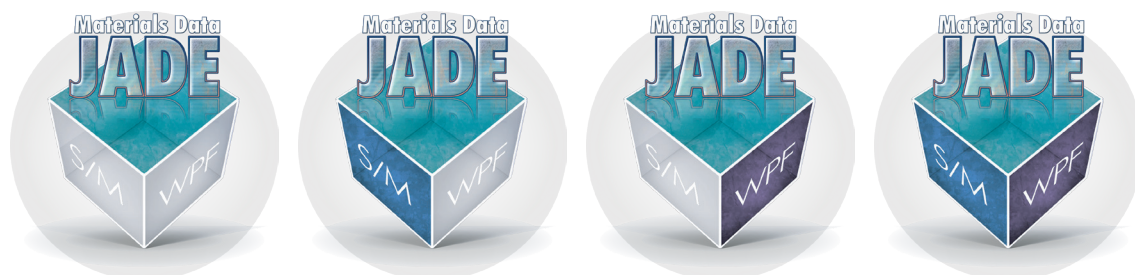
- Reads all vendor pattern files
- Handles variable/fixed-slit data
- Auto peak search and multi-filter search
- Simulate powder patterns from crystal structures
- No annual renewal fee
- Individually licensed for workstations
- Hardware Independent - supports a wide range of diffractometers

PHASE ID (SEARCH/MATCH)

- Found in Levels
2A: Search/Match
3: Search/Match and Whole Pattern Fitting
- Phase Identification (S/M)
- Minor and Trace Phase ID

WPF + RIETVELD

- Found in Levels
2B: Whole Pattern Fitting (WPF)
3: Search/Match and WPF
- WPF & Rietveld Refinement



Level 1	Level 2 (A or B)		Level 3 ...or choose JADE Pro, and get it all and more!
Base	Base	Base	Base
	Phase ID (S/M)		Phase ID (S/M)
		WPF + Rietveld	WPF + Rietveld

Phase ID (S/M) - JADE Standard Level 2A or Level 3

Profile-based Search/Match with minor and trace phase ID or search on a single peak. Ability to include chemistry filters and unit cell data as well as preferred-orientation.

WPF + RIETVELD - JADE Standard Level 2B or Level 3

Quantify weight percentages and identify minor phases quickly and easily.

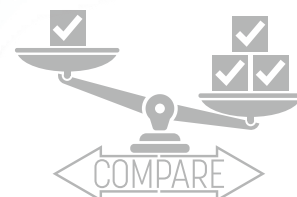


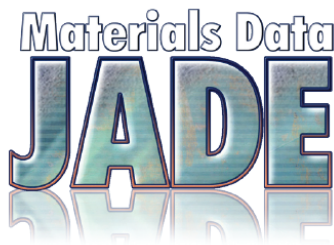
JADE QA

A special build meant for production line Quantitative Analysis (QA) typically carried out by a technician. Requires a setup file created by an analytical scientist using JADE Pro. JADE QA runs independently of JADE Pro and was designed to extend the power of Rietveld Quantitative Analysis (QA) to those in your organization responsible for overseeing consistencies in production who may or may not have a background in XRD.



...Compare on the next page!





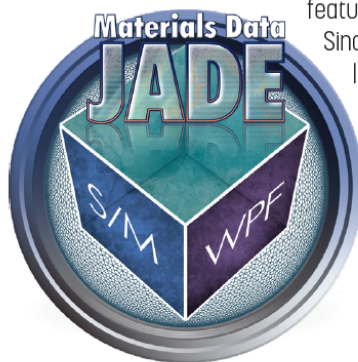
Get More Power With JADE Pro

JADE is available in Pro and Standard

JADE FEATURE LIST

	Pro	1	2A	2B	3
Intuitive, State-of-the-Art UI	✓	✓	✓	✓	✓
Reads All Vendor Pattern Files	✓	✓	✓	✓	✓
Smart Column Data Importer	✓	✓	✓	✓	✓
Merge Multi-Scans/Segments	✓	✓	✓	✓	✓
1, 2, and 3D Pattern Overlay	✓	✓	✓	✓	✓
Déjà Vu ID Similar Pattern Files	✓	✓	✓	✓	✓
Handles Variable/Fixed-Slit Data	✓	✓	✓	✓	✓
Multiple Display Axes and Any Diffraction Wavelength	✓	✓	✓	✓	✓
Zero Offset Correction and Theta Calibration	✓	✓	✓	✓	✓
Background Fitting/Batch Fitting/Removal	✓	✓	✓	✓	✓
Auto Peak Search and Multi-Filter Search	✓	✓	✓	✓	✓
Wide Variety of Report and Print Options	✓	✓	✓	✓	✓
Includes Starter Database	✓	✓	✓	✓	✓
ICDD PDF Database Access (as well as other databases)	✓	✓	✓	✓	✓
Multitude of Data Choices for Database Retrieval	✓	✓	✓	✓	✓
View Crystal Structures and Reflection Planes	✓	✓	✓	✓	✓
View Polyhedra, Calculate Bond Distances and Angles	✓	✓	✓	✓	✓
Simulate Powder Patterns from Crystal Structures	✓	✓	✓	✓	✓
Individual Analyst/Shared Work Environments	✓	✓	✓	✓	✓
Support for Custom d-I% list for Phase Overlay	✓	✓	✓	✓	✓
Excellent Profile Fitting and Batch Profile Fitting	✓	✓	✓	✓	✓
RIR and DDM Quantitative Analysis	✓	✓	✓	✓	✓
Size & Strain and Residual Stress Analysis	✓	✓	✓	✓	✓
Line-Based Unit Cell and Batch Refinement	✓	✓	✓	✓	✓
Structure Database Manager	✓	✓	✓	✓	✓
Profile Based Search/Match (S/M)	✓	✓	✓	✓	✓
Subfile + Chemistry + Unit Cell Filters in S/M	✓	✓	✓	✓	✓
Minor and Trace Phase ID	✓	✓	✓	✓	✓
Single Peak and Severely-Oriented S/M	✓	✓	✓	✓	✓
Solid-Solution and Isotypical Phase ID	✓	✓	✓	✓	✓
Auto-S/M in background thread on loading a pattern file	✓	✓	✓	✓	✓
Full pattern S/M on PD3 phases by correlation & similarity	✓	✓	✓	✓	✓
WPF and Rietveld Refinement (Unlimited Phases)	✓	✓	✓	✓	✓
Gold Standard Quantitative Analysis	✓	✓	✓	✓	✓
Seamless Integration with Database Retrieval	✓	✓	✓	✓	✓
Auto-Loading of Structure Data from Database	✓	✓	✓	✓	✓
Combination of Phases with/without Structure Data Weight%	✓	✓	✓	✓	✓
Linking of Unit Cell, Phase Broadening Parameters	✓	✓	✓	✓	✓
Custom d-I% (hkl, FWHM, Skew) to Fit Clay Phases	✓	✓	✓	✓	✓
March-Dollase and Spherical Harmonics Orientation Function	✓	✓	✓	✓	✓
Amorphous Content with/without Internal Wt% Standards	✓	✓	✓	✓	✓
Atomic Occupancy and Bond Distance Constraints	✓	✓	✓	✓	✓
Polynomial and Spline Curve Background Fitting	✓	✓	✓	✓	✓

All levels of JADE Standard are perpetual licenses and sold without the benefit of updates or any of JADE Pro's extensive set of extra features, like the ability to share a license. Since it is a subscription, JADE Pro has a lower buy-in than JADE Standard.



If you have JADE Classic, there still may be trade-in value for your JADE Classic towards the purchase of a current version of JADE Standard or JADE Pro.

Additional JADE Features Only Available in JADE Pro

	Pro
One-Click-Analysis™ - Phase ID and WPF/Rietveld Analysis	✓
Size and Strain Analysis (Warren-Averbach & Williamson Hall)	✓
Pattern Indexing (All Crystal Systems)	✓
Simulate Series of Powder Patterns from Crystal Structures	✓
WPF and Rietveld Refinement Batch Processing	✓
Rietveld Structure Refinement (Atomic Parameters)	✓
Atomic Occupancy and Bond Distance Constraints	✓
Fourier Map Tools	✓
Ab Initio Tools (Charge Flipping +)	✓
Cluster Analysis of Powder Patterns	✓
Floating (Shareable) Network License	✓
All Updates via Subscription	✓
Extract Patterns from Area Detector 2D Images	✓
Digitize Any XRD Plot Image	✓
Cluster Analysis Visualization Dendrograms	✓
Toolkit App Version of ClaySim	✓
Toolkit App for Microstructure Analysis	✓
Toolkit App for Structure Solver Workflow	✓
Live Simulations and Visualization	✓
Toolkit App for Simulated Annealing	✓
Toolkit App for Regression Analysis	✓
Toolkit App for Pattern Matching	✓
Toolkit App for 3D Scatter Plot	✓

Multiple Languages!

To better support diverse teams sharing a license of JADE Pro across their organization and to ensure consistent results regardless of language, JADE can switch on the fly to Chinese or Japanese languages.