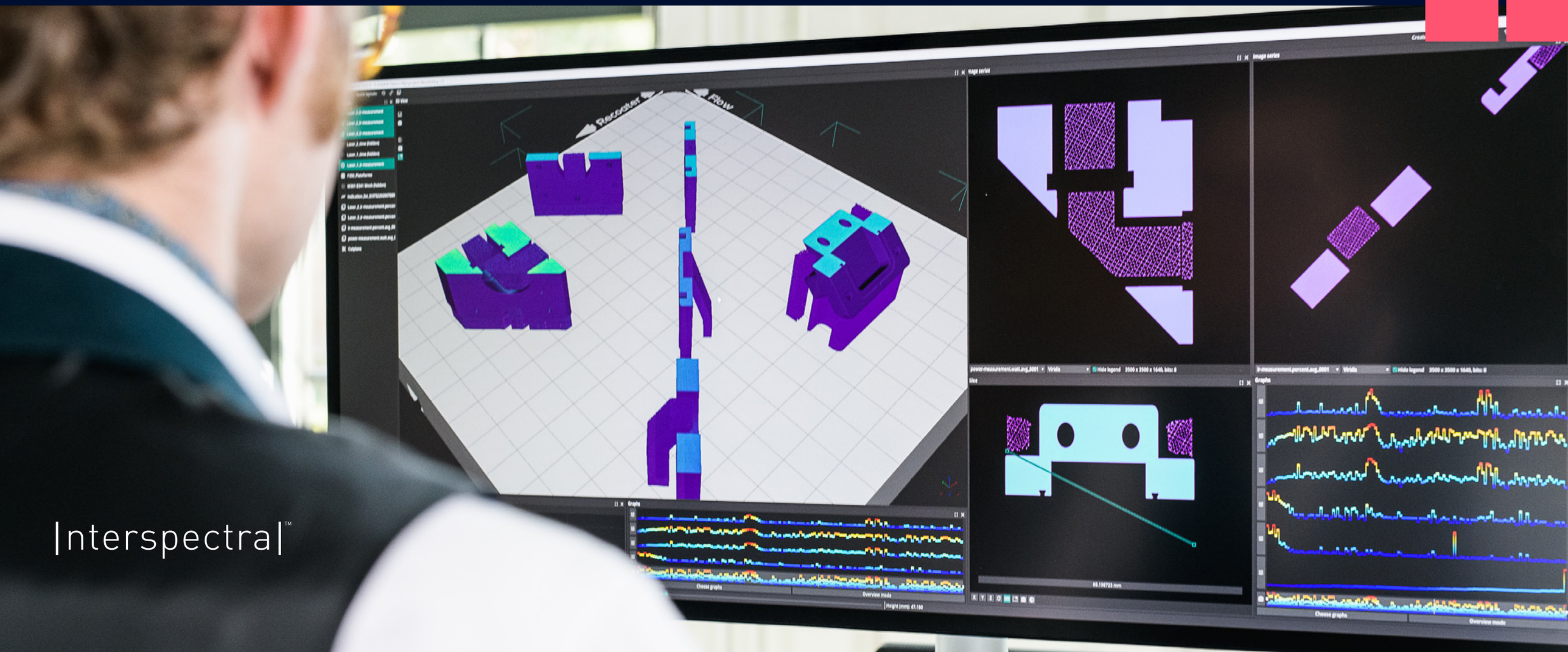
AM Explorer™

PRODUCT DESCRIPTION

AM Explorer™

Fuse, visualize and explore your metal AM process data in 3D



Interspectral™

Supporting Your Entire Additive Manufacturing Journey

AM Explorer is a powerful tool for analyzing and visualizing 3D data in additive manufacturing. It helps engineers, researchers, and manufacturers explore, compare, and optimize data from process monitoring, simulations, and inspections.

From Prototype to Production
Supporting the entire additive manufacturing process, AM Explorer offers AI-driven analytics and comprehensive data management to enhance quality and efficiency at every stage.

Data-Driven Insights for Smarter Decisions
By transforming complex data into actionable insights, AM Explorer enables real-time anomaly detection, in situ monitoring, and optimized production with reduced waste.

Flexible Workflow Integration
Designed for on-premises deployment, AM Explorer integrates smoothly into any operational environment, adapting to diverse workflows with vendor-agnostic flexibility.

Tailored Onboarding
With personalized setup, hands-on training, and expert guidance, we ensures a smooth adoption by providing tailored guidance through documentation, interactive demos, and consultations.

The AM Explorer Workflow

CONNECT
Seamlessly integrate real-time data from your production environment for immediate insights.

- Compatible with various data sources and machines, supporting process monitoring data from most additive manufacturing systems on the market.
- API and proprietary file integration with leading OEMs, including EOS, Nikon SLM, Colibrium Additive, Freemelt, and AddUp.
- Supports simulation and post-build inspection data, such as CT scanning and laser surface scanning.

DETECT
Utilize AI to automatically detect anomalies and track key metrics throughout the process.

- Modular analytics architecture for scalable and adaptable defect detection.
- AI-powered defect analysis, including automated localization, classification, and presentation of powder bed image defects.
- Seamless integration of external analysis modules.
- Capability to develop and integrate custom analysis modules.

ANALYZE
Delve into data trends to uncover insights that drive continuous improvement.

- Advanced 3D visualization and data fusion of multiple data streams. Interactive 3D volume and point cloud rendering.
- Support for large and complex data sets.
- Comprehensive data fusion from various sensor systems, including powder bed images, melt pool monitoring, optical tomography, condition sensors, and third-party quality sensors.
- Integration of pre- and post-build data, such as simulations, CT scans, and laser scanning, for in-depth analysis.

OPTIMIZE
Efficiently record and document key observations to support operational transparency.

- Document findings with ROI indications.

COMMUNICATE
Generate comprehensive reports that inform data-driven decisions and communicate results effectively.

- Configure, export, and share build quality reports in media-rich PDF formats.
- Generate high quality screenshots and videos.

GENERAL

- Intuitive user interface for streamlined navigation and efficient operation.
- Customizable workspace to tailor the software to specific tasks.
- Easy deployment with no complex installation procedures required.
- Secure, standalone operation with no internet connectivity needed.

Enhancing the Customer Journey

Use Cases

AM Explorer supports a wide range of additive manufacturing applications, enabling efficient process optimization and quality assurance at every stage.

- **Application and process parameter development**
  Fine-tune manufacturing parameters to optimize performance, efficiency, and repeatability.
- **In-situ monitoring**
  Gain real-time insights into the build process, detecting anomalies and ensuring consistent quality.
- **Post-build quality control**
  Conduct comprehensive inspections using advanced data analysis to verify part integrity and performance.
- **Qualification**
  Streamline the qualification process by leveraging in-depth monitoring and analysis for compliance and certification.
- **Research & Development**
  Support innovation with a flexible platform that enables data-driven experimentation and process refinement.

Licensing

AM Explorer is offered through an annual subscription model, with one license per connected machine. Flexible multi-year and enterprise pricing options are available.

Support, Knowledge and Updates

- **Free Remote Support**
  Included in your subscription for seamless assistance whenever you need it.
- **Regular Software Updates**
  Quarterly releases with early access to new features and improvements.
- **Customer Support Forum**
  Access a comprehensive knowledge base, including FAQs, documentation, guides, and tutorials for self-service support.

Smooth Onboarding

Each customer receives a tailored 3-month onboarding program to ensure a seamless integration of AM Explorer into their workflow.

The program includes

- Comprehensive introduction & hands-on training for a smooth start.
- Integration & software implementation support to align with your systems.
- Case evaluation to maximize the software's impact on your operations.
- Dedicated application engineer providing expert guidance throughout the process.
- Biweekly meetings to track progress and address any challenges.
- Certification upon completion to recognize your team's expertise.

This structured approach ensures you gain full value from AM Explorer, accelerating adoption and long-term success.

Improving your AM Explorer Experience:

To ensure that our customers get the most out of AM Explorer, we regularly update our customer support platform.
Here, you'll find:

- **New tutorials for using AM Explorer**
  Explore comprehensive step-by-step tutorials taking you through some of the most useful features of AM Explorer with screenshots, videos, and test data available for download.
- **Latest version of AM Explorer for download**
  Download the newest AM Explorer release with access to the latest improvements and features.

For information on how we can customize our software to meet your needs, please contact us at

sales@interspectral.com

Interspectral™

About Interspectral

Headquartered in Norrköping, Sweden, Interspectral is a technology company at the forefront of 3D visualization, data fusion, and AI-driven solutions for Industry 4.0. Our goal is to provide our global clients with tools that transform complex data into practical insights, helping them to achieve excellence in additive manufacturing.

VISITING ADDRESS
Garvaregatan 4C
602 21 Norrköping
Sweden

E-MAIL info@interspectral.com
WEBSITE www.interspectral.com