

AM WORKFLOW SOFTWARE

Technical Features

AM PART IDENTIFIER

Inventory Analysis

- Connection to Existing ERP Systems
- Metadata Extraction and Criteria Mapping
- Technological and Economic AM Suitability Analysis
- Automatic Part Complexity Analysis based on CAD Model
- Scoring of AM Business Cases
- AM Pricing Estimates
- Part Life Cycle Tracking

Use Case Screening

- Online Screening Interface
- Standardized Digital Part Submission Process
- Instant Evaluation of Individual Parts
- Configurable Workflow
- Out-of-the-Box Part Use Case Reporting
- Industry-Tested Evaluation Logic
- Custom Evaluation Criteria
- Manufacturing Decision Recommendations

COLLABORATION

3D File Management

- Support 30+ File Formats for Upload
- Batch File Upload and Processing
- 20+ CAD System Plugins for Direct Upload (Autodesk, SolidEdge, SolidWorks, Siemens NX, ...)
- Model Organization as 3D Projects
- Quick Search (File Name, Customer, Order Date, Status, ...)

Project Collaboration

- Project Sharing Across Organization
- Email Invitation for Collaborate
- Commenting on Parts or Projects
- Comment on Part Geometry within Viewer (Beta)
- Define Custom Part Requirements
- Attach Part Documents (PDFs, Licenses, Pictures, ...)

ORDER MANAGEMENT

Process Selection

- Instant, Accurate Part Pricing
- Material Filtering and Selection (Physical, Electrical, Chemical Properties, Characteristics, Lead-times, Availability, ...)
- Print Service Comparison by Delivery Time and Price
- 3D Model Viewer (Wireframe, Transparency, Printability Analysis)
- Request a Quote or Place Part Order
- Batch Upload 3D Models via Drag & Drop
- Single or Multiple Post-Production Methods
- Process Selection Across Multiple Parts

Order Tracking

- Order Tracking through Production Workflow
- Order Filtering based on Status Updates
- Automatic Status Updates via Email
- Delivery Tracking Links
- Repeat Past Part Orders

Accurate Pricing

- Custom Part Pricing Formulas
- Custom Post-Processing Pricing Formulas
- Custom Support Pricing Formulas
- Custom Orientation Pricing Formulas
- Step-by-Step Pricing Formula Assistant
- Accuracy Verification with a Pricing Formula Tester
- Manual Pricing Requests
- Smart Rules to Offer Manual Pricing Requests
- Custom Quotation and Invoice Layout

Printing Service Configuration

- Database of 300+ Materials (Name, Physical and Technical Properties, ...)
- Combine Material and Post-Processing
- Configure Multiple Locations
- Custom Shipping Methods and Cost
- Custom Pickup Locations
- Custom Payment Methods
- Credit Card Payment Processing
- Discounts, Minimum Order Prices and Extra Fees
- Personalized Vouchers

Order Accounting

- Detailed Order Summary
- Project Communication Tracking
- Generate Order Confirmation as PDF
- Generate Delivery Note as PDF
- Generate Invoice as PDF
- Required Company Information
- Customer Reference Number
- Order Data Export as CSV

3D Model Optimization

- Printability Analysis (Wall Thickness, Gaps, Shells, ...)
- Model Repair (3YOURMIND Mesh Healing Engine)
- Model Optimization based on Production Technology Selection
- High-Accuracy Model Conversion to STL
- Download of Original or Optimized 3D Model

AGILE MES

Part Prioritization

- Automatically Prioritized Part Recommendations for Build Jobs
- Unique Part Sequence IDs (Schedule Orders in Multiple Print Jobs)
- Part Filtering (Material, Order Date, Delivery Date, ...)
- Assignment of Employees and Groups to Parts
- Attach Documents, Instructions and Comments to Parts
- Review Version History for Modified Parts
- Batch Download of Part Lists and Production Files for Processing

Tracking

- Custom Workflow Templates (Optional Customization per Part)
- Unlimited Workstations for Printing and Processing
- Quality Assurance Process Tracking
- Custom Process Statuses
- Notifications for Comments, Errors and Job Status Updates
- Rules to Automatically Forward Parts to External Suppliers

Scheduling

- Part Assignment into Print Jobs
- Custom Job Status, Names and Printer Assignment
- Automate Scheduling of Prioritized Parts based on Nesting Behaviour
- Attach Documents, Instructions and Comments to Jobs
- Automatically Generate and Download Job Processing Documents
- Production Overview by Job or Printer
- Scrap and Reschedule Broken Jobs and Parts
- Schedule Workstation Maintenance
- Analytic Reports (Delivery on Time, Printer Utilization, Job Success Rate, ...)

Machine Integration (Beta)

- Direct Data Integration with 3D Printers
- Scheduling and Sending Print Jobs to Printers
- Storage and Assignment of Default Printer Parameters
- Real-time Information Updates (Printing Time Shifts, Time for Disarmament, Dismantling, ...)
- Collection and Storage of Real-Time Process Parameters (Log Files, Parameter Set, Versioning, Manual Setting Adjustments, ...)
- Notification and Collection of Special Events (Machine Error Messages, Machine Status, Completion of Jobs, ...)
- Development of AM Production Standard for Software-to-Machine Connectivity

INFRASTRUCTURE AND INTEGRATIONS

Installation

- SaaS (Dedicated 3YOURMIND Cloud Hosted in Germany)
- On-Premise (Self Deployment on Customer Cloud using 3YOURMIND Documentation)
- On-Premise (Self Deployment using 3YOURMIND Documentation)
- Dockerized Deployment
- Simple Deployment and Setup Scripts

Customization

- Multiple Production Locations

Compatibility

- Mobile-Optimized
- Compatible with All Major Web Browsers
- Support Multiple Database Types (PostgreSQL, MySQL, MariaDB)
- Built to Scale for Enterprise Applications

Integrations

- Continuously Maintained API Documentation
- Custom Integrations in 3rd Party Systems through REST APIs
- 60+ Integrated Software Products (ERP, PLM, CAD, WEB, MES, ...)

Data Processing

- Integration with AWS S3 for Secure Data Storage
- Normalized Database (All Data is Only Stored Once)
- Performance Optimized (Upload and Analysis of 100 files in approx. 8 min)

Security

- End-to-End Encrypted Data Transfer with TLS
- Layered Platform Permissions
- Complex Authorization and Role Management
- Automatic System Monitoring, Direct Alerts and Instance Logging
- Compliant with GDPR-EU and FTC Act (15 U.S.C. 41-58)
- Restriction of File Download

ADMINISTRATION

User Management

- Single Sign On (Authentication Protocols: oAuth, SAML, JWT)
- Verification Workflows for New Users
- Profile Preferences and Personal Address Book
- Supports 9+ Currencies and Conversion (Configurable)

Customization

- Multi-Language
- White Labeling
- Custom Subdomain
- Customize Frontend

ANALYTICS

- Performance Overview
- Order Statistics
- User Statistics
- Upload Statistics

SUPPORT

- Agile Project Management with Metrics for Customer Success
- Dedicated Native Speaker in Required Language
- Multi-level Service Packages
- Detailed Product Documentation
- Branded User Manuals for End Users

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