

ENTERPRISE WORKFLOW



CLOUDFLOW and its WORKSPACE

CLOUDFLOW is a modular production workflow suite for file processing, asset management, soft proofing and workflow automation. It is a web-based application platform specifically tailored for the packaging graphics with support for PDF, color separation, trapping, screening, proofing and much more.

WORKSPACE

Workspace is the foundation for any CLOUDFLOW configuration. It indexes file repositories while respecting the existing directory structure, automatically extracts relevant metadata and creates accurate thumbnails. It stores all of its information in a database to make it available and searchable and allowing for centralized configuration and backup.

Workspace features an innovative workflow engine to create business and production flows. Its fully HTML5 based user interface offers easy and customizable access to all processes and content. With the webserver built-in, it can host custom portal solutions that tie directly into workflows and access files with proper user and permission management.

The extensive and documented web API of CLOUDFLOW connects to surrounding IT equipment and databases to retrieve parameters and other production instructions to automate production and eliminate double entry.

The foundation for any CLOUDFLOW configuration

- Web-based
- Central database for all CLOUDFLOW applications
- File and asset management
- Automatic indexing and metadata generation
- User management and permissions
- Workflow engine
- · Distributed computing
- Full REST API allows access to all CLOUDFLOW functions

Turnkey solution for soft proofing and collaboration



- · True HTML5 viewer, no plug-ins required
- Correct high-res preview in the web browser
- Support for native PDF, screened TIFF, LEN and other image formats
- Difference viewing with auto alignment and separation selection
- Advanced markup and annotation tools
- Measurement tools for ink densities, distances and angles
- Easy to embed in existing web portals with full API

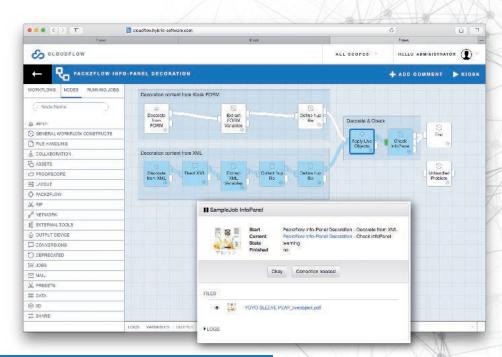






- Unmatched speed: 64-bit multi-processing and multi-threading
- Full customizable workflows
- Complete set of prepress functions, such as document preflight and correction, separation handling, barcodes, transformations, trapping, flattening and many more
- Advanced Step & Repeat for labels, flexible packaging, folding cartons, spiral wraps, etc.
- · Variable data processing
- Creation of job info panels, slug-lines, bearer bars, etc.
- · Optional gravure export

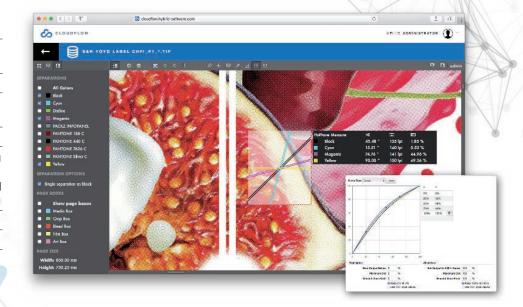




Fastest RIP for packaging output based on proven Global Graphics Harlequin RIP technology

RIP

- High speed native PDF 1.7 and PS RIP technology
- Reliable output for various output devices
- 1-bit and multilevel AM, FM and hybrid screening
- Built as native CLOUDFLOW application
- Complete feature set for all packaging printing techniques with full control of screen sets and calibration, including support for object-based screening
- Optional HXM hybrid screening
- · Fast, multi-threaded host renderer



Enterprise Packaging Workflow System

CLOUDFLOW is ...

a modular production workflow suite for file processing, asset management, soft proofing and workflow automation.

INDUSTRY

LABELS

ACCELERATION
SHARE

MODULARITY
PRINTING

PREPRESS RIP DATALINK JOBS

SCALABILITY

PACKZ **ORCHESTRATOR**

MODULAR ARCHITECTURE
WORKSPACE SOFTWARE



SMART FACTORY

3D DIGITAL TRANSFORMATION PACKZFLOW

EDDDICE \\/\ODKELO\\// PACKAGING

OPEN STANDARDS

ORDER LIFECYCLE MANAGEMENT

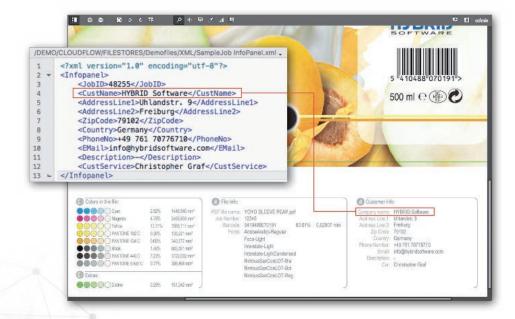
PROOFSCOPE





- Connection to MIS/ERP and other data sources
- Generation and reading of XML or JDF
- Compatible with all SQL databases
- Dataconnector services
- Data manipulation, such as XSLT translation (XML processing)





Order Lifecycle Management

ORCHESTRATOR

- · Integration framework to build OLM applications based on CLOUDFLOW
- Custom job tickets to manage orders and production jobs across departments
- Combines Workspace, Datalink, Media module, Application and process templates and user interface editor
- Process engine for Milestones, actions and workflow templates
- Live-Connector gives access to complex data sources and real-time combination of information from different sources
- Unique caching system to control and optimize workload on information systems

Job management

JOBS

- Presents job information in a graphical user interface
- Automatic creation of job related folder
- Easy search and access to files in existing jobs
- Execution of prepress and approval tasks based on job info
- Call existing item or job for re-run with same or modified properties



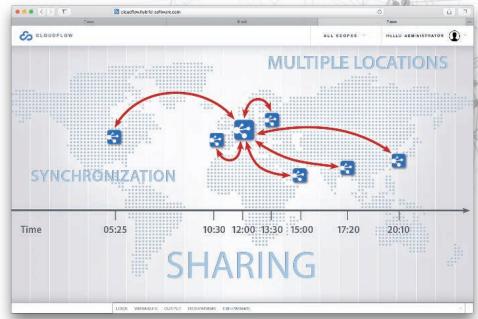


Multi-location service for files and licenses



- Sharing files over regular internet instead of dedicated lines
- Optimized synchronization of new and changed files on block level
- File replication across multiple locations
- Automatic distribution of file modifications
- Synchronization driven by workflows or business process
- Group-wide search capability on all assets







- Full HTML5 solution, no plug-ins required
- · High-res 3D viewing in the web browser
- Seamless integration in workflow and approval processes
- Automatic generation of 3D previews based on 3D models and PDF graphics
- Built with powerful IC3D technology



Corrugated plate manufacturing automation

PATCHPLANNER

- Full HTML5 user interface allows multiple operators to patch their own jobs
- Efficient layout of plate patches for platemaking
- Works with PDF and TIFF
- · Add registration marks
- Export of cutting coordinates and mounting instructions for automated corrugated plate mounting machines, cutting tables and even manual mirror mounters





CLOUDFLOW CONCEPTS



Modular Architecture With CLOUDFLOW, you can add and combine a large variety of functional modules for soft proofing, prepress automation,

RIPping, screening, job- and order lifecycle management and many more.

Multiple Workspaces can be clustered for extra computing power, high availability and multi-location configurations.

CLOUDFLOW's powerful Share technology links Workspaces across the internet to exchange and synchronize files, data and licenses to optimize their utilization.



Open Standards

CLOUDFLOW is web-based from the start (HTML5), uses PDF and XML all the way, and supports all major industry standards

such as CIP3, XMP and many others. It contains a completely documented REST API for seamless integration.

CLOUDFLOW is fully data driven by the power of the document-oriented Mongo-DB database. With the Datalink module you can add data access and manipulation functionality to interoperate with SQL and other data structures.



Industry 4.0

With its ability to run completely in the cloud, CLOUDFLOW offers a reliable platform for the digital transforma-

tion in the labels and packaging world.

It integrates and interoperates with all contributors, IT services and equipment of the entire value chain by providing flexible interfaces and powerful process engines.