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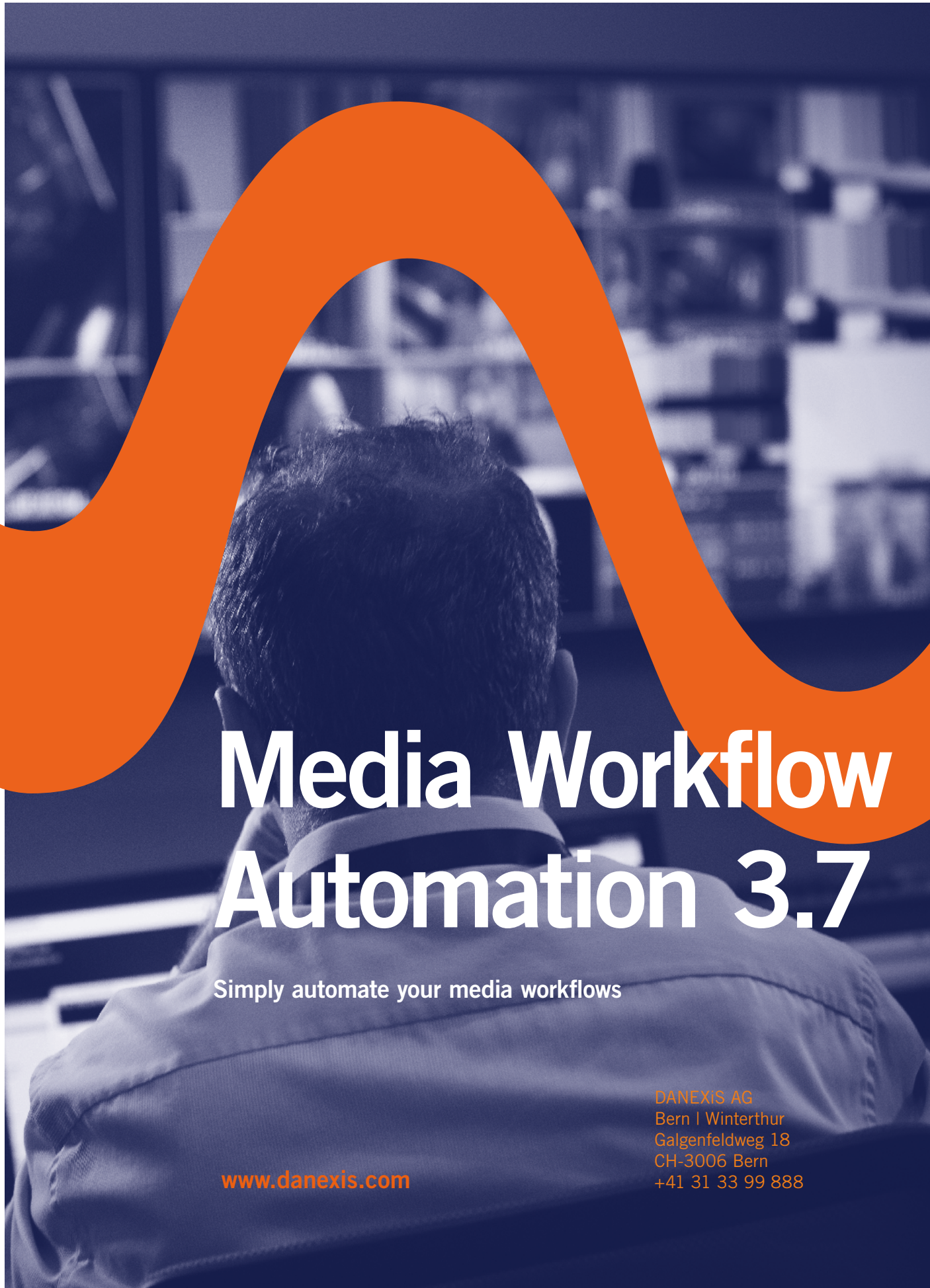

Media Workflow Automation 3.7

Simply automate your media workflows

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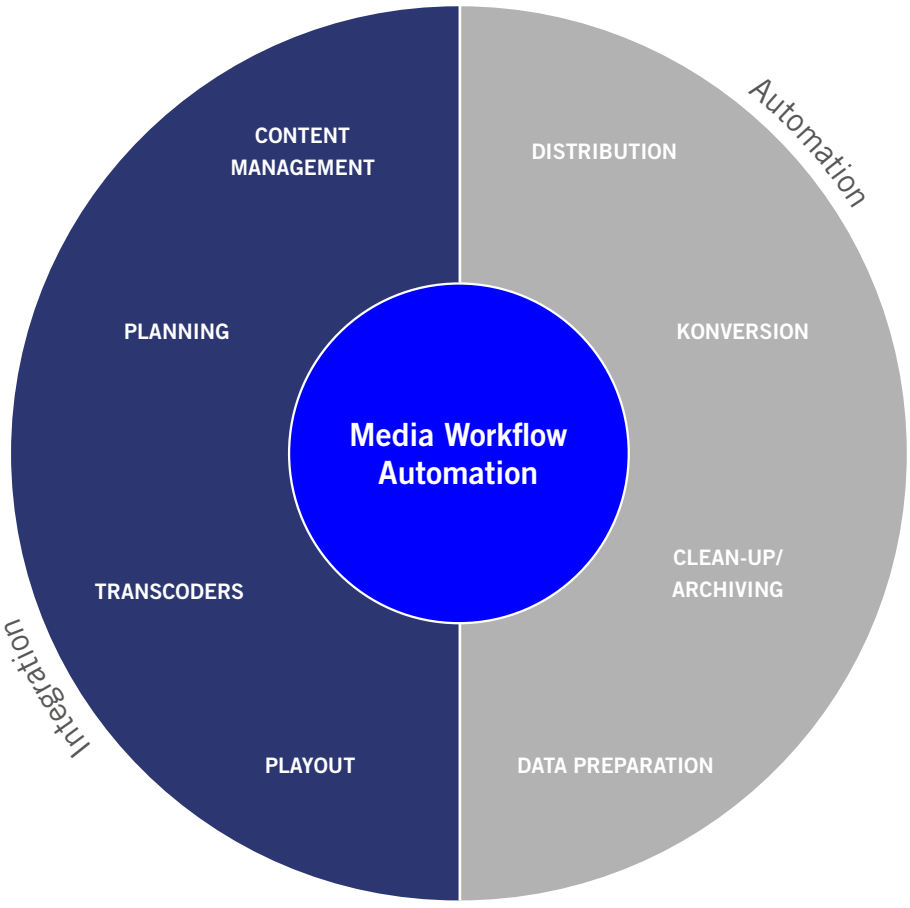
Overview

Processes within the media technology sector are becoming more diverse and demanding. Media content is consumed through various channels. The underlying system landscape is complex and media formats exchanged between system components are usually incompatible and must be converted in costly individual process steps.

Media Workflow Automation is a product-independent, cost-effective integration solution for the automation of standardised routine tasks for broadcasting. The solution features highly configurable activities that can be combined into any workflow. The automation of receiver-friendly content preparation leads to a higher target group distribution at low operating costs.

Media Workflow Automation integrates various systems for content management including, transcoding and processing as well as broadcast/advertisement planning environments. Media Workflow Automation excels at content and metadata distribution between integrated systems during conversion of content, such as for Web platforms, archiving and cleaning up aired content or data processing – for example AsRun log data.



Features

– Broadcast-capable, 24/7 event-driven workflow engine
– Highly configurable activities for mapping individual process steps
– Intuitive, browser-based user interface with user-friendly diagnostic capabilities
– OnPremise/cloud or hybrid operation, ready for operation in virtualised infrastructure

Application Areas

Intelligent transfer of media data, e.g.
– on playout systems due to planning
– for import data in media asset management systems including associated metadata

Transcoding of media contents, e.g.
– for further processing in uniform house format

Provision of media data including metadata. e.g.
– for Web platforms, RSS feeds, etc.
– for automatic data exchange with other content providers

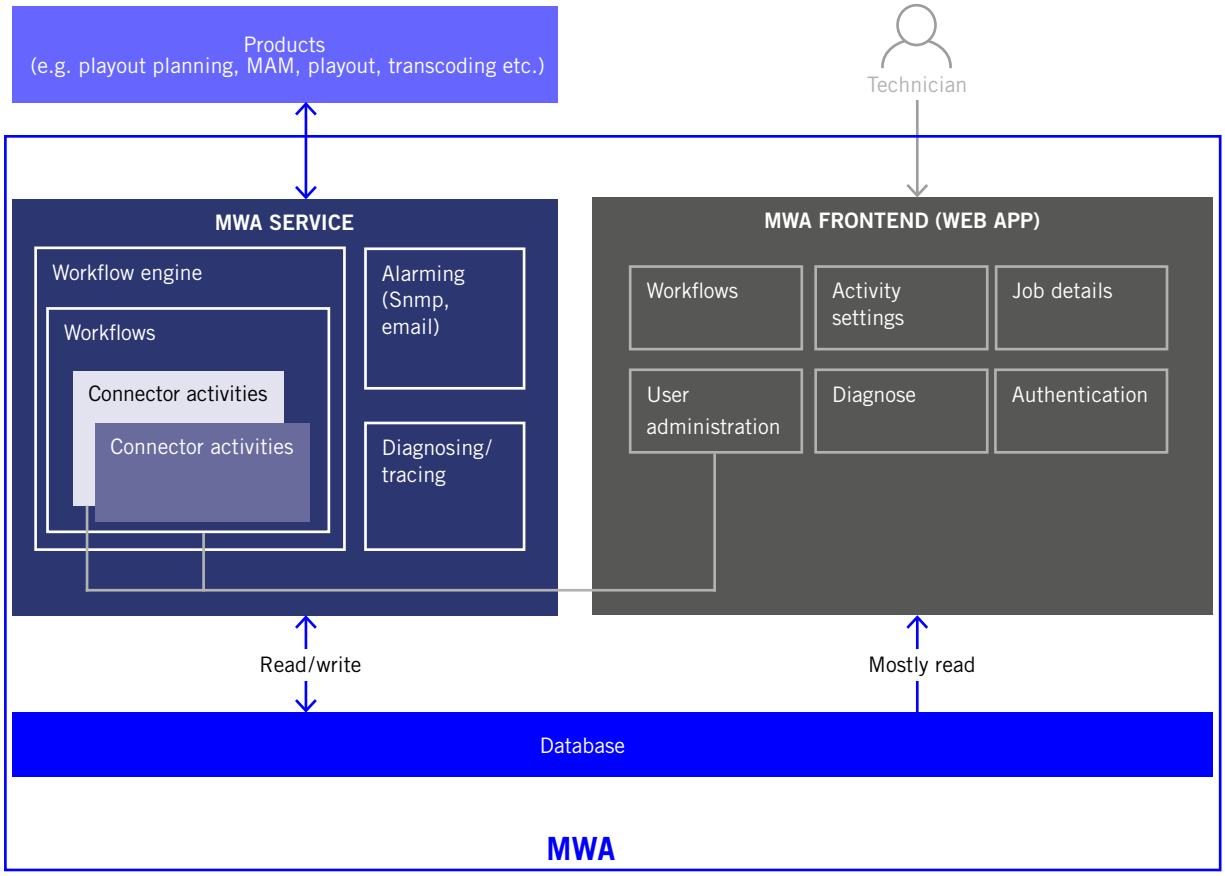
Clean up and archive content, e.g.
– for broadcast content on playout systems

Preparation of AsRun data, e.g.
– for GRP quotas

Architecture

A robust Windows Service-based workflow engine performs any workflow. The building blocks of a workflow are activities that represent the process steps to be automated. Activities communicate via a messaging system, which allows them to perform computer-intensive activities on dedicated servers. Connector activities are required for the integration of individual broadcast products, for example, media asset management or planning systems. Proprietary product formats are converted into uniform media workflow automation formats by the connector activities, which form the basis for any combination of the activities.

Media Workflow Automation is a reliable automation solution, running as a background process and not perceived by the end user in most cases. Using a browser-based user interface, a user can still quickly see the current status, the planned respective tasks already performed, and the Media Workflow Automation settings.



Activities

Media data transmission	File format filter option
	Consistency check of large files before processing
	Playlist support: copy order takes into account the time of transmission, various playlist formats
	Transfer to multiple copy destinations, e.g. in redundancy scenarios, differentiation of playlists and content
	Ability to retry failed transfers
	Configuration options – Number of parallel transmissions – Data package size – Transfer behaviour (e.g. copy, move, archive) – Override behaviour if file already exists
	Metadata support in the form of key/value-based XML or JSON format, Diga export format (DBX)
	Supported data sources/storage: network shares (NFS, SMB, FTP), download URL, all Windows-supported formats (FAT, NTFS, Live File System, ReFS), Amazon S3 Bucket
Transcoding	Multi-source data handling (e.g. intro/outro sequences)
	Use of metadata in the transcoding process
	Ability to retry failed transcoding operations
	Configuration options – Transcoding priorities – Complete transcoding template with extensive settings – Post-transcoding behaviour (e.g. deleting the source file)
	Supported transcoding solutions – Cambria FTC (H.264, MPEG-2, DNxHD, HEVC, etc.)

Media data import	Metadata import into media asset management systems including metadata key mapping
	Metadata support in the form of key/value-based XML or JSON format, Diga export format (DBX)
	Triggering media data provisioning processes
	Preview generation during import
	Configuration options – Number of parallel imports – Post-import behaviour (e.g. deletion of the source file)
	Supported media asset management systems – Px Media Library
Media data provisioning	Metadata provisioning from media asset management systems e.g. planning systems
	Support for preview content
	Generate download URLs for media content
	Metadata mapping to any template definitions with metadata placeholders for content referencing in iTunes, RSS feeds, XML, JSON, CSV, XLS, etc.
	Metadata monitoring for triggering the processing operation
	Configuration options – Conditional logic for the provisioning time, e.g. due to metadata – Metadata query frequency and number of queried metadata entries per request – Metadata mapping
	Supported media asset management systems – Px Media Library – Diga System – File system-based solutions
	Supported playout systems – Genesix Playout from Stryme

Support for different planning systems	Music Master/TvMaster – Metadata import with aggregation mechanism – Content caching, if there is no media asset management system – Processing of exported playlists including metadata export for data preparation for GRP quotas
	Diga System – Processing of exported content including metadata – Renaming of exported files
	Burli – Processing of exported playlists
	OpenMedia – Processing of exported file lists with triggering of media data provisioning processes
	Delfin – Processing of exported advertising planning lists (ASC) for data processing for GRP quota determination
Cleanup/ Archiving	Determine removable files based on processed playlists
	Configuration options – Directories to be monitored
Data preparation for GRP quotas	Regular generation of a GRP file according to the requirements of the Swiss Federal Office of Communications (BAKOM)
	Consideration of AsRun log of Media Device Control, TvMaster dispatch planning/category division and Delfin advertising planning
	Determination of the initial broadcasting time for repetitive content
	Determination of planning times for initial broadcast content
	Combination of individual advertising content to advertising blocks
	Configuration options – Generation time – Start date for the last 24 hours – Time for initial broadcasting of new advertising blocks, messages, etc. – Deviation period against planned transmission times – Metadata mapping, e.g. TvMaster category to GRP designation

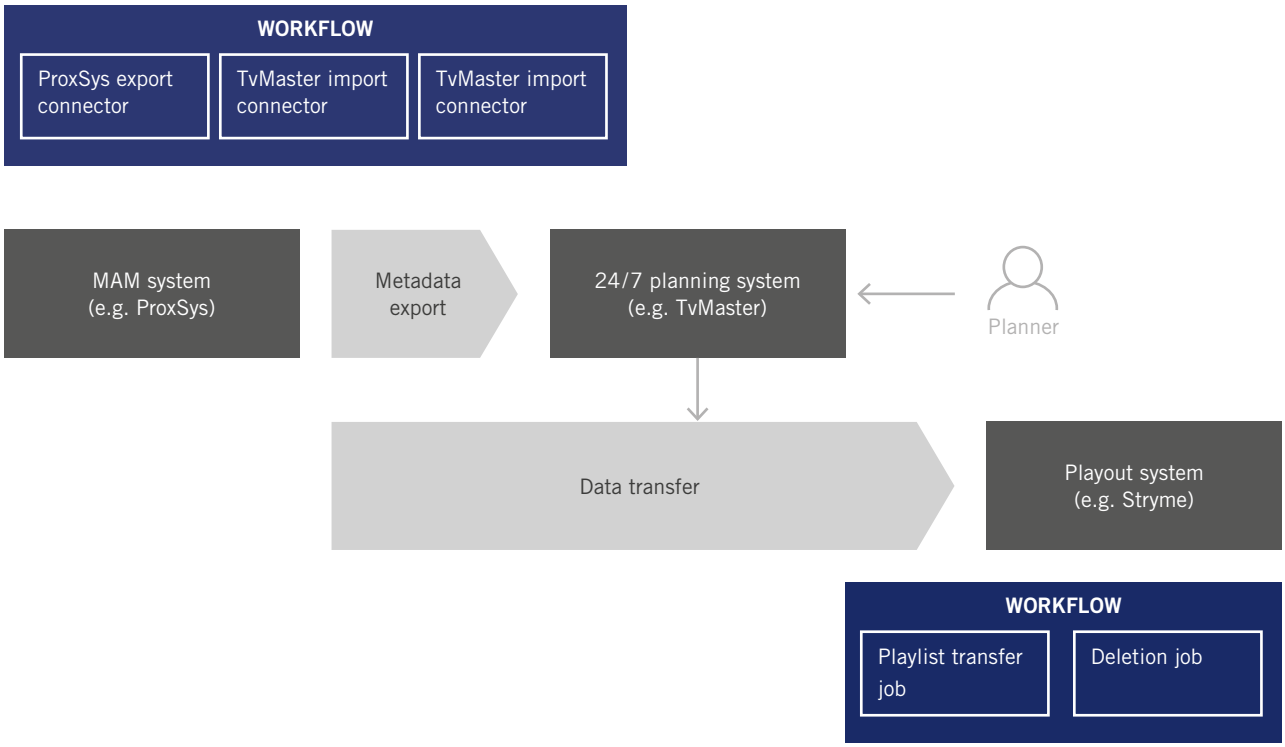
Integration with command line tools	Trigger and monitor any batch process that can be executed via a command line console
	Metadata mapping to command line argument parameters
	Configuration options – Command line command with metadata placeholders – Duration of execution monitoring – Post-execution behaviour (e.g. deletion of the source file)
Notifications	Notification of any events by mail, SNMP traps, etc.
	Mail template storage with metadata placeholders
	Assignment of recipients to events

Workflow Example

In this example, metadata from a media asset management system is transferred to a planning system. Depending on the planning, the planned content is transferred to the playout systems.

Metadata export can be triggered through definable metadata values. The metadata can be freely assigned and converted both when exporting from the media asset management system and when importing into the planning system.

The smart transmission of planned content takes place in parallel, for which the broadcasting time is taken into account and delays are displayed immediately. Sent content that does not exist in any future playlist can be cleaned up automatically or manually on the playout systems..



cmp planning to playout

User Interface

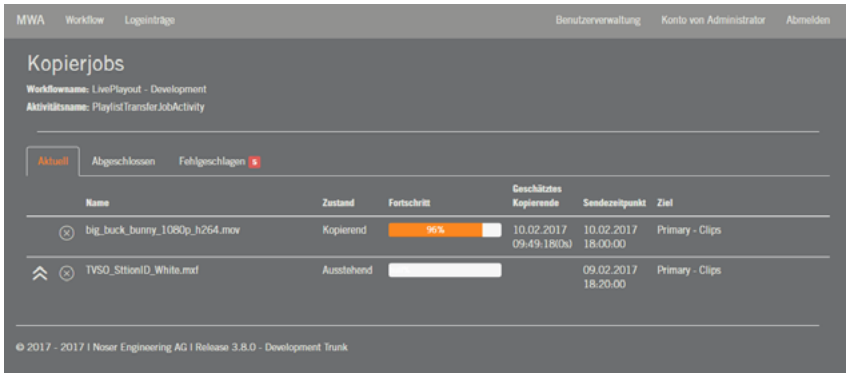
Workflow overview
– List all workflows
– Activate/deactivate workflows
– Status of the associated activities, error indication

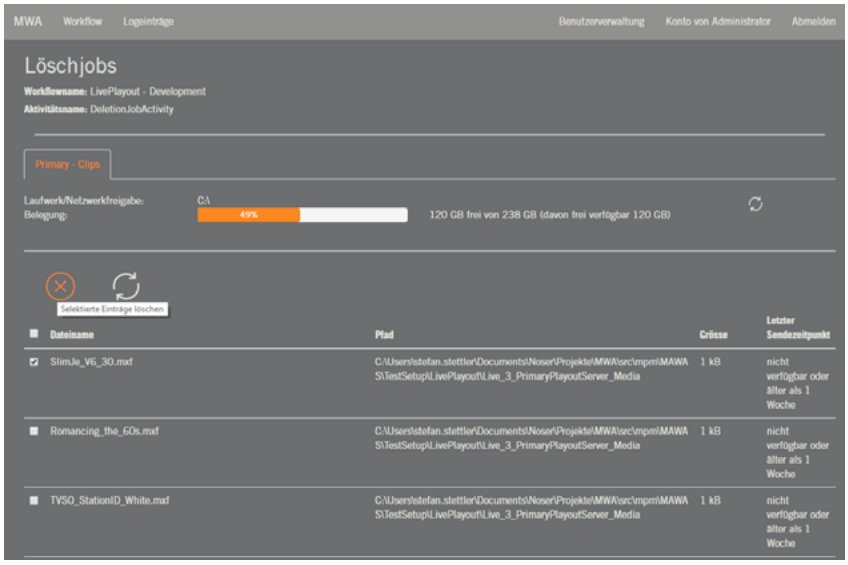
Activities
– Settings/configuration of an activity
– Details of ongoing, failed and completed tasks
– Cancelling current tasks
– Reload existing tasks
– Repetition/confirmation of failed tasks

Troubleshooting
– 'Get insight instantly' approach: read-only access to portal without login
– List of logging entries with correlation mechanism for interdisciplinary diagnosis
– Filtering by logging level

User account
– Change password

User management
– Detection of stand-alone users and roll allocation
– List of all registered users





Requirements

Technical specifications	
Operating system	Windows operating system with .NET 4.5-Support (e.g. Windows 7 SP1, Windows 8, Windows Server 2012 R2)
Web server	IIS 8.0, WebSocket-capable, http/https
Supported browsers	Chrome, Firefox, Internet Explorer 11
Database	MSSQL Server Standard
Data exchange	XML (workflow definitions)
Messaging	Rabbit MQ 3.5.4 or comparable

Server components	
Hardware	Minimal: HP Z440 Workstation Recommended: HP Server dl380 or comparable
CPU	Intel Xeon E5-2630v2 2.6 GHz
RAM	16 GB
Disk	2 x 146 GB (operating system), 2 x 300 GB (data & database)
Network	Minimal: 1 GB Ethernet port Recommended: 10 GB Ethernet ports for video applications 2 ports each in redundancy scenarios

Any questions?

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