

ALL INGEST SOLUTION

by x-dream-group

All ingest types in one solution — file, social media, camera, tape, feed, stream, field, remote office, studio and archive — powered by AI

A sophisticated production environment requires a robust ingest solution that seamlessly supports both content creators and those who rely on ingested essences and assets. Our **All Ingest Solution** covers all types of sources, both within and outside your facility. It offers user interfaces tailored to each use case while enabling automated processing wherever possible and integrates the latest AI-powered functionalities.

WHY IS INGEST SO IMPORTANT?

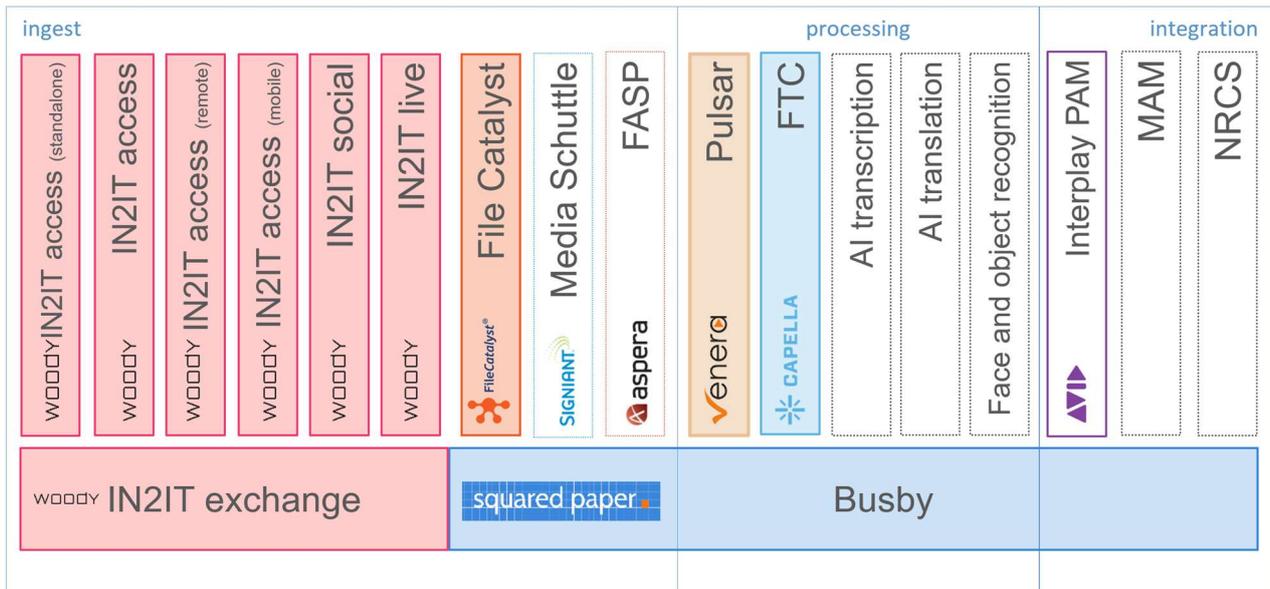
It has been a long time since “ingest” referred simply to bringing a video file into a post-production application. Nowadays, the term “Ingest” describes the starting point of a complex and fully integrated file-based post-production and publication. Production workflows also include various processing steps. Each step requires its own set of essence files and metadata. Such essence files typically include video, audio, graphics, and subtitle files. Metadata can be technical, descriptive, business or for control. It's clear “Ingest” developed towards a versatile topic.

But where is the origin of all these files and data? While the answer might be different per customer use case, it will most often be a combination of central (central ingest desk), decentral (kiosk systems, editing stations), remote (journalists abroad, regional offices), B2B (movies, commercials, news, sports) and archive ingest. Other sources might be databases (e.g. rights). In most cases, ingest is a manual process; however, some sources (e.g. metadata) may be available for automatic retrieval. Moreover, several processing actions can be automated or run through AI prior to the essences finally being handed over to the production systems.

INGEST MANAGEMENT SYSTEM



SERVICES ARCHITECTURE



The Ingest Management System (IMS) is the heart of our All Ingest Solution. It orchestrates the ingest workflow operations while providing user interfaces for operators to interact and monitor. The IMS seamlessly integrates all ingested sources and delivery targets, ensuring a smooth and efficient process. For the IMS, we have selected *Squared Paper's Busby*, a proven and flexible solution.

For customers with distributed organizations, the IMS can be deployed at every facility and connected to act as one global system via a bridging module. In larger installations the IMS is part of the all over Production Management System (PMS) that orchestrates and integrates all the facilities building blocks and teams to become one efficient end2end business process. A PMS adds asset aggregation to the solution prior to handing the content to editing, archiving, news operations, layout and publishing.

Central Ingest Station

The Central Ingest Station is the primary place for ingest operations. It's usually located in a room where all new content is brought to. A team of ingest specialists uses several dedicated workstations to bring files from various storage devices into the production and delivery environment. While doing so, files are previewed, selected, pre-cut, and stitched. Technical metadata is generated automatically, while descriptive metadata is added manually. The product used for that is *Woody IN2IT access*. It can transcode and re-wrap the files in the platform-internal format.

A variant of central ingest is offered when the source devices are attached to a server or files are being moved there before the ingest operations. In this case, *Woody IN2IT exchange* is the right choice. Most often via watch folders, new files are detected and automatically ingested with standard metadata. If metadata is to be manually set, *Woody IN2IT access* can act as a client to *Woody IN2IT exchange*.

In other cases, the requirement is to trigger an automated workflow for a batch of files. In this case, *x-dream-media's xIngest* allows you to remotely browse, preview, select and segment video files via a WebGUI. Compared to *Woody's IN2IT*, the *x-dream-media's xIngest* sends the files for processing to x-dream-media's

Workflow Manager (WFM). WFM orchestrates transcoding, re-wrapping, QC, virus scanning and other operations. It's usually used to manage larger amounts of material.

Desktop or Kiosk Ingest

Besides the central ingest, desktop or kiosk ingest offers journalists and creatives to bring source material into the production environment from their workspaces or dedicated computers close to their desks. A dedicated computer allows virus risks to be managed in a controlled and professional manner. Furthermore, it reduces costs when expensive storage devices such as Sony XDCAM HD are required. The functionality provided is identical to that of the central ingest desks. The product of choice is again *Woody's IN2IT access* in combination with x-dream-media's WFM and other tools for virus scanning and QC.

To serve a larger number of journalists at their desks for occasional ingests, the upload web client of *Woody IN2IT exchange* is a cost-effective alternative – ideal for remote journalists (see section below).

Social Media Ingest

"What happens, happens first on social media". So ingesting social media content is taking content from end-user publishing portals back to production environments. Often, a journalist has found an item of interest and faced the challenge of retrieving and ingesting the file. Download tools can be used in combination with the usual ingest tools. A more efficient method is using one integrated tool. In our solution, we use *Woody IN2IT social* for directly downloading and ingesting from social media and web portals.

Live Feed Ingest

Live sources originate from satellite feeds, lease line or studio transmissions. Traditionally, video has been provided as HD-SDI signals, but modern workflows now include SMPTE 2110 or NDI sources. Recording usually happens as a "crash-record" or scheduled record. For fully integrated multi-camera or multi-feed recording, our solution is built on *Woody IN2IT live*. It supports the recording of SDI, NDI, SMPTE 2110 studio signals and many types of web streams.

When metadata handling and integration are less critical during live recording, *x-dream-media's Broadcast Recorder* is a perfect alternative for recording to disk and processing via *x-dream-media's WFM* workflow orchestrator.

For connecting remote interview guests from their mobile phones, laptops or PCs, we offer *MultiCAM's AirBridge*. It converts the master control room into a video call-in center. For more static or reoccurring connections, *Medialooks Video Transport* is a must-have for video engineers.

Tape Ingest

Although tape is considered obsolete, many archives still contain valuable assets stored on tape and some workflows continue to use it for production or transport. Our ingest solution addresses this by making use of recording software in combination with *x-dream-media's WFM* for ingest workflows or *Woody's IN2IT exchange* for PAM ingest.

Remote Journalists & Contributors

Although individual journalists in the field and external contributors provide content occasionally and in smaller volumes, their collective number is large. Therefore, a simplified way to up- and download video files with related metadata is required. Tools have to be accessible globally and intuitive to use. We address these needs with *Woody's* upload WebGUI for *IN2IT exchange*. It allows to contribute from remote directly into the production chain as an operator on-site would do. A special remote ingest variant is available for scenarios where a work order is first received and then a production result is returned. In this case, *x-dream-media's PROexchange* is an excellent solution for extending on-premises workflows to integrate external production partners. A workorder is received via a so-called exchange job. These are communication threads

that are restricted to individual users or groups. They take in the essence files to work on and further metadata that describes the workorder. The contributor has access to their communication jobs as a permanently registered user or an operator invites them to a temporary room.

Remote Offices & Facilities

Staff in remote offices or production facilities require tight integration into the systems of the main facility in order to be as productive as possible. Larger facilities can be equipped as the main facility. Smaller facilities get provided with a fully featured but scaled-down system. In both cases, users interact with a local system that sends and retrieves the files and metadata to and from the main facility as a background process.

AI-Enhanced Ingest and Automated Metadata Creation

To further improve efficiency and content discoverability, the x-dream All Ingest Solution can integrate AI-driven processing during ingest.

During or immediately after ingest, AI services can automatically:

- ❖ Generate speech-to-text transcriptions for searchable timed metadata
- ❖ Create automatic subtitles and captions
- ❖ Translate metadata and subtitles into multiple languages
- ❖ Detect and identify faces, objects, or scenes in video material
- ❖ Enrich assets with AI-generated tags and contextual metadata
- ❖ Support faster content search, archive access, and newsroom workflows

These capabilities help broadcasters and content owners reduce manual logging, accelerate editorial workflows, and improve content monetization opportunities.

B2B Content Exchange

Modern content production and publishing rely on collaboration between studios, post-production facilities, agencies, broadcasters, and publishers. This involves handling large volumes of video files and metadata, requiring a secure, reliable, and efficient exchange method. Within our All Ingest Solution, we provide market leading technology to address these needs, such as *Fortra's FileCatalyst*. Additionally, cross-team workflows are implemented via our hybrid workflow orchestration layer *WFM*.

Processing

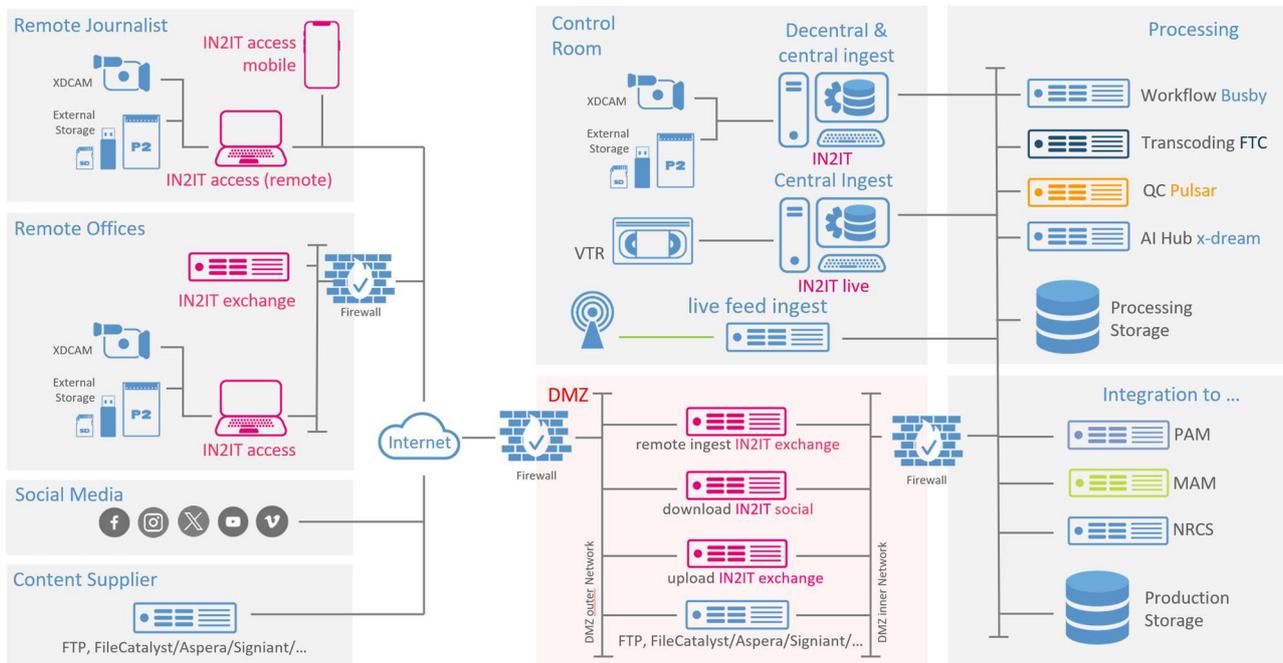
Once files and metadata have been ingested, fully automated actions can take place, such as transcoding and re-wrapping to a house format or browsing proxies, quality control, audio processing (e.g. normalising), or video processing (e.g. standard conversions). Advanced actions like audio transcriptions for timed metadata and subtitle creation, translations of metadata and subtitles or face recognitions can be added for automatic metadata creation. Finally, assets (files + metadata) are handed over to the production system(s). For instance, while a high-resolution file is moved and checked into the production asset management system (e.g. Interplay PAM), a low-resolution browsing proxy is made available to the media asset management system (MAM) or the newsroom control system (NRCS). *Squared Paper's Busby* orchestrates and processes All Ingest workflows. Built-in user interfaces or *x-dream-media's OneGUI* provide an overview of any volume of ingested assets.

Workflow Orchestration

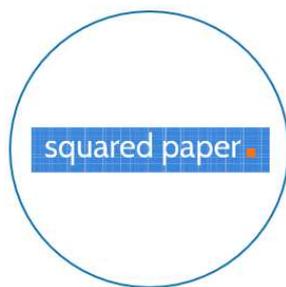
Squared Paper's Busby is the core of our ingest end-to-end solution. It orchestrates and processes the All Ingest workflows. Built-in user interfaces or *x-dream-media's OneGUI* provide real-time monitoring of all ingested assets - regardless of volume.

This centralized approach enables efficient workflow management, visibility, and control over the entire ingest process.

TYPICAL NETWORK ARCHITECTURE



ALL INGEST SOLUTION PARTNERS

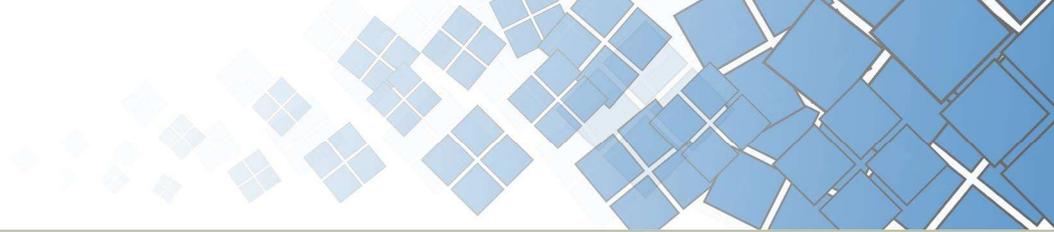


Woody: Remote, decentral and central file and social media ingest

Squared Paper: Workflow Orchestration

Capella: File Transcoding

Venera: Quality Control



x-dream-group is a composite entity, consisting of x-dream-media, a pan-European software manufacturer and integrator dedicated to media IT, and x-dream-distribution, a wholesale distributor offering a carefully curated portfolio of media software products and vendors across EMEA.

x-dream-group's comprehensive service portfolio spans from consulting and deployment to training, support services and customer-specific development. Additionally, we provide sales and procurement of both standard solutions and tailored offerings to meet the unique needs of our customers.

x-dream-media GmbH

Höhenkirchener Straße 134
85662 Hohenbrunn
Germany

Phone +49-8102-99578-1
Fax +49-8102-99578-5
www.x-dream-group.com