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About Idealliance

Idealliance (International Digital Enterprise Alliance) is a not-for-profit membership organization that has been a leader in information technology and publishing since 1966. Idealliance advances core technology to develop standards and best practices to enhance efficiency and speed information across the end-to-end digital media supply chain - creation, production, management, and delivery of knowledge-based multimedia content - digitally and in print.

Idealliance is where media creators and technology communities collaborate to craft best practices, advance standards, and certify people, processes, and systems to achieve the highest performance in creation, production and delivery of graphic communications.”
The Integrated Media Workflow
When reviewing emerging business opportunities for printers, it is easy to see that providing new services to existing customers necessitates implementing a more complex workflow. Clearly the repurposing of content and media assets for all media channels is a must. In the ideal, this implies utilizing a central asset management repository. Early attempts to deliver products across media channels were accomplished by developing parallel workflow for each media channel. For example, early pioneers left their print workflow in place and created a parallel workflow to produce tablet applications. This was an acceptable transition step, but is not cost effective or efficient. Instead printers must consider adopting a new, more dynamic workflow that will enable them to offer a wide variety of new services to their customers.

What is the Integrated Media Workflow Model?
In order to make a meaningful workflow transition, one must understand what is meant by an “Integrated Media Workflow” (or IMW) model. The goal of the IMW is to be able to efficiently produce output to a wide variety of distribution channels from a single workflow. Rather than using a linear process or a series of separate linear processes, the goal is to integrate media production centrally and to output to any distribution channel from that central system.

Note that in addition to moving from a straightforward linear model, the hub-and-spoke IMW model has several additional stages that are critical to the success of the IMW model.

Underlying Technologies

At the heart of an IMW is the “hub”. One difference between many current print workflows and an integrated media workflow is that, it is highly likely, not all functions will be performed by hardware, software and staff at your physical location. Today you can add remote cloud services to enhance workflows without the level of investment or expertise formerly required by each individual printer. Additionally underlying technologies enable printers to bring their customers into the loop remotely at any time. Certain technologies, underlying each stage of an integrated media workflow play a key role in assuring media integration. These technologies can include:

- Color Management – techniques and technologies for managing the color intent across devices throughout the integrated media workflow
• Metadata – descriptive digital asset labels that facilitate automation and contain critical asset information, across an integrated media workflow (PDFx4)
• Workflow and Asset Management Technologies – technologies that manage and move content and media assets from one process to the next, across an integrated media workflow
• Cloud Services – computer resources (including both hardware and software applications) that are accessed in real-time to ensure that only the most current content and media assets are used throughout the workflow
• Security – technologies that ensure that your media assets are protected against loss, damage, or theft
• Analytics – software and cloud-based technologies that track the output and measures the results

Six Stages to an IMW

One way to understand an Integrated Media Workflow is to partition the functions into steps or stages. Some stages exist in current print-based workflows, but others are new functions that are required to integrate cross-channel media production. Some stages are at the “spokes” of the workflow while others are centralized. IMW stages include:

Create & Capture: (create: to bring into existence / capture: to acquire)
Ingest & Manage: (ingest: to bring into, to upload/ manage: to organize, store and retrieve)
Edit & Produce: (edit: to correct or modify/ produce: to combine components into a product)
Transform & Publish (transform: to correct or modify/ publish: to combine components into a final product)
Fulfill & Distribute: (fulfill: to package or print/ distribute: to deliver or supply)
Report & Engage: (report: to provide a detailed accounting / engage: to involve)

Create & Capture

Managing the design and creation process of content and media assets is the first stage in an integrated media workflow. In a linear workflow for one print target, the design and creation processes are very straightforward. In an integrated media workflow intended to deliver content to a wide variety of media channels, all channels must be considered in both the design and creation stage. The design for digital channels may call for the creation of additional editorial content and media assets to enhance what appears in print. In order to serve a wide number of output channels, additional still images may need to be captured. And in this stage, photo, video and animations may come into the mix. Finally, a family of layout designs may need to be developed for tablets and smart phones outside of the print design. Integrating tools and processes that enable the ideation, design and creation of text and rich media assets is critical to evolving toward an integrated media workflow.

Steps within the Create & Capture stage include:
• Collaborate to build a cohesive publication plan with all stakeholders
• Design each publication item, assuring cross-media brand integrity throughout the project
• Prototype and test. This might involve a series of A/B tests with customer/reader feedback.
• Reserve pages for advertising based on input from an Ad Entry sales tracking system
• Create a set of related layouts to assure uniform branding for each deliverable/channel
• Establish, assign and manage a color space for the project
• Design online and social media presence including the home URL, PURLS, a Facebook fan page and a YouTube channel
• Register home URL and generate PURLS to map against a customer data profile, generate QR codes that link to the appropriate PURL
• Within a project plan identify all logos, imagery/videos and other content that will be required for each deliverable
• Streamline content creation to save time and resources by making a plan to capture/create each media asset and content block only once for use multiple times across media channels
• Create imagery and/or content for the cross-channel project
• Capture imagery and/or content for the cross-channel project
• Embed or assign metadata to each asset 1) Describing that asset, 2) Identifying target delivery channel/product and 3) noting any usage rights restrictions
• Add SEO keywords or adwords for a Google campaign.
• Create a hierarchy of information plan for mobile applications – layering content, headlines, categories, and variable data elements

When implementing the Create & Capture stage in an IMW, new techniques and processes should be considered:
• Explore new ways to create multi-use design during project conception
• Develop stronger concept design processes to promote multi-channel use
• Discover new cloud-based systems that empower real time collaboration & ideation with your customers and their designers
• Protect creative concepts while sharing content broadly and securely
• Gain a competitive edge with digital capture of structured content at the creative stage
• Learn the importance of capturing metadata when media is created
• Understand the importance of rights management for each asset created, captured or acquired
• Develop a strategy for developing “responsive” designs that will work across a number of aspect ratios and physical dimensions

RELEVANT STANDARDS & SPECIFICATIONS
• Standard Image Formats including: JPEG, TIFF, BMP, PNG, WebP & SVG
• Standard Video Formats including: AVI, MOV, MP4, OGG, WebM
• Dublin Core: Provides standard metadata labels for generalized publishing
• PRISM: Provides standard metadata labels for magazine publishing and related media assets
• PRISM Usage Rights: Provides standard metadata for capturing asset usage rights
• PSV Content Encoding: Provides portability across media channels and direct display in HTML5-enabled browsers & reading technologies
• XML: Provides portability across media channels
• XMP: Provides a standard way of inserting metadata into each media asset
• EVE: Provides best practices for video capture and labeling videos with metadata
• GRACoL & SWOP: Provides standard profiles for color management.

Ingest & Manage

At the heart of an ideal integrated media workflow is the concept of using a toolset that can manage both the media content and assets within the production workflow. This process is made possible through the tagging of assets as they are captured and automating the process of upload into Media Asset Management (MAM) Systems. This process informs production workflow systems by keeping a metadata record about who created each asset and how each asset has been processed throughout the workflow. Digitally labeling media assets that will be ingested into an integrated media workflow optimizes system and job performance. The transformation of media assets into delivery system formats happens in Stage 4, Transformation.

Steps within the Ingest & Manage stage include:

• Upload media assets and content into Digital Asset Management (DAM)/Content Management (CM)/Workflow systems (Cloud Central)
• Upload or access client marketing data/consumer data/CRM data to support personalized marketing deliverables
• Add metadata for each asset ingested so assets can easily be searched, located and collected/aggregated to produce each marketing deliverable
• Manage versions of media assets and content throughout the project
• Manage approvals of media assets and content throughout the project and route from one project task to the following task

Unless you are already using a workflow system and/or a central digital asset management system, ingestion is likely to be a new stage in your workflow. When implementing the Ingestion stage in an IMW, new techniques and processes should be considered:

• Learn how ingesting content with stronger metadata creates new opportunities and a more efficient workflow
• Remove barriers and open up new, simpler content submission to increase content capture and contribution
• Empower your customers—better metadata equals better search, which in turn gives customers what they want, when they want it, and how they want it
• Define optimal formats and standardized formats for faster ingestion and stronger workflow
• Explore cloud ingestion and find out when and what type of cloud would be right for your workflow
• Gain an understanding of the different types of Content Management Systems (CMS) that can be used to store and manage content and media assets and their usage rights and permissions

Relevant Standards & Specifications

• PSV: Provides standard metadata architecture for the design or federation of systems managing media assets
• XMP: Provides a standard way of inserting metadata into each media asset
• EVE: Recommends mezzanine formats for video management
Media production is the process by which content and media assets are edited, combined into layouts, enhanced and finished. While past production workflows were dependent on layouts designed for print, a production workflow designed for multiple channels must address assorted media types, including audio, video, digital images, graphics, animations and written content that can be transformed and delivered across a wide variety of distribution channels, including print, tablet, mobile, Web, point of sale, and specialty engagement. As production for the numerous media types is integrated within a workflow, special attention should be given to establishing standard storage formats, utilizing workflow technologies to automate the movement of assets through the production process, and eliminating manual or duplicate processes.

Steps within the Edit & Produce stage include:

- Select and tag final imagery, logos and color space for the integrated marketing campaign and product launch
- Assure brand integrity by using color management and G7 gray balance throughout production and proofing
- Verify color accuracy for multiple output devices and locations
- Track and manage production workflow/approvals
- Preflight creative-submitted ad files
- Complete image correction, retouching and video editing within target color space
- Produce, proof and approve final layouts for print & tablet layouts
- Produce and integrate interactive enhancement for tablet publications
- Produce, proof and approve Web and social media components
- Utilize Web tagging so you can capture analytics and measure engagement following product launch
- Test QR code linkage to PURLs
- Normalize personalization data
- Secure approvals and retain versioning for meeting tight deadlines in launching
- Track production efficiencies and material usage and waste

When implementing the Edit & Produce stage in an IMW, new techniques and processes should be considered:

- Identify & eliminate wasteful stages in production by harnessing new technologies to simplify content layout
- Turn up the volume on your production collaboration with real time versioning
- Adopt multi-media efficient production with multi-device and multi-media output in mind
- Build digital enhancements and interactivity to perform as designed across devices and operating systems for tablets and other digital platforms
- Learn how to employ workflow technologies and media asset management systems to move media efficiently through media production and approval

Relevant Standards & Specifications

- GRACoL and SWOP: Enables standardized color management
- SWOP: Defines color proofing standards
- G7 Calibration enables standardized gray balance for proofing systems
• XMP: Provides a standard way of inserting production metadata into each media asset as it moves through production and approvals
• HTML5: The W3C markup language for structuring and presenting content on the Web – must be used with CSS3 and Javascript to provide intended interactivity
• SAINT: IDEAlliance standard lexicon for specifying interactive digital ad and content production
• Ad-ID: Provides a universal unique identifier for each ad being produced

Transform & Publish

By this point in an integrated media workflow, media has been created, produced, and is stored in a central repository. This asset management system serves as the hub for an integrated media workflow. The richness of the metadata associated with each asset is the key to your ability to select and aggregate content for delivery to different media channels. From this hub, or central repository, the next stage is to collect or aggregate assets to be delivered, transform them into the appropriate format for each channel and publish the deliverables for each channel. The Transform & Publish stage includes proofing, preflighting, approvals, generation of PDFs and ripping.

Steps within the Transform & Publish stage include:

• Merge personalized content and variable media assets into personalized mailers
• Insert ads from outside Creatives
• Assemble and transform appropriate media into formats and layout for each channel
• Transform RGB to CMYK for materials to be printed
• Transform print materials into PDF/X-4 for printing
• Transform print materials to a shared color appearance on multiple output devices, substrates and print technologies
• Preflight, proof, approve and rip completed product for print
• Transcode video into correct format for target tablet OS
• Transform digital resolutions and size based on target tablet / device
• Transform from Flash® to HTML5/JS based on browser technology for target channel
• Publish eBooks with EPUB
• Publish interactive digital renditions for tablets using OpenEFT or .folio

Transformation of centralized content and media assets to create deliverables for more than a single channel is likely to be a new stage in your workflow. When implementing the Transform & Publish stage in an IMW, new techniques and processes should be considered:

• Leverage metadata to assemble and transform appropriate media into formats and layout for each channel including PDF for print
• Execute rock-solid Customer Experience Management—what are the basics and how to you get started?
• Understand how to strengthen marketing content by using personalized elements when assembling and transforming for deliveryLearn how to capture hearts and minds by matching customer profiles with relevant content
• Realize the advantage of transcoding rich media objects from a central source format into device-specific formats for each distribution channel at this point in the workflow
• G7 calibration of proofing devices enables standardized gray balance across multiple output channels
• PDF/X: Delivery format for print and for publications with fixed layout to be displayed on the Web and digital devices such as tablets and smart phones

RELEVANT STANDARDS & SPECIFICATIONS
• EVE: Provides best practices for video transcoding
• XSLT: Provides XML/text transformations that result in an XML-encoded text stream that can be directly formatted by a style sheet
• PDF/X: Final format for print and for publications with fixed layout to be displayed on the Web and digital devices such as tablets and smart phones
• HTML5: Becoming popular as a final format for Web and mobile content that is displayed with browser technologies. (Basis for EPUB 3.0 and PSV)

Fulfill & Distribute
After media has been aggregated and transformed/transcoded for each destination channel or platform it must be printed and/or packaged and then delivered to its intended target(s). At this point content may be output on any print device, offset press, digital press, wide format press or even screen printed, posted on the Web, or packaged and distributed as apps to digital newsstands such as Apple iTunes, Google Play or Amazon. Likewise printed materials may be mailed to their final destination, distributed to physical newsstands, displayed as signage or be part of a package. All these functions are included within the Fulfill & Distribute stage.

Steps within the Fulfill & Distribute stage include:

Printing personalized mailers and delivering via USPS, taking advantage of postal discounts to mail promotional pieces at the lowest rates
• Printing specialized point-of-sale materials and advertising signage
• Printing packaging
• Package eBook using EPUB OPF
• Packaging tablet app for each tablet/mobile platform and delivering to digital newsstand
• Launch website with URL/PURL technology
• Launch Facebook page
• Launch YouTube channel
• Deliver physical product to subscriber or newsstand via USPS or other logistics companies
• Deliver digital product via Web portals or Web services

When implementing the Fulfill & Distribute stage in an IMW, new techniques and processes should be considered:
• Use GRACoL and SWOP to enable standardized color management from proof to press
• Learn how G7 press calibration can assure brand integrity when delivering media across multiple print channels
• Gain an understanding of how employing print process controls improves cost effectiveness of the print channel
• Learn how OpenEFT can streamline delivery of enhanced tablet editions to digital newsstands
• Gain a stronger foundation in the value of Publishing On-Demand
• Learn how you can gain efficiencies and maximize USPS mailing discounts by employing Mail.dat / MailXML

**RELEVANT STANDARDS & SPECIFICATIONS**
• G7 Calibration: Enables integrity of visual appearance across delivery channels
• G7 Process Control: Optimizes print workflow and reduces cost of printing
• Printing Standards: SWOP, GRACoL, ISO 12647, 15311, and 15339
• EPUB: Standard for eBook packaging and delivery
• OpenEFT: Optimizes exchange of digital editions between publishers and digital newsstands
• .folio: Compiled format merging underlying page renditions with interactive overlays from Adobe DPS
• Mail.dat & MailXML: Optimizes postal operations

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**Report & Engage**

One might assume that once media is delivered the job is done. But today, gathering metrics and extending consumer engagement are critical to the ongoing media publication ecosystem. Clearly the ways to engage and measure begin with the design of the media being delivered. Gathering information about how users engage is now a critical stage in the process. Tools that gather usage information, customer feedback and extend the engagement through ongoing social media all become part of an effective, integrated media workflow.

**Note:** Because of the iterative nature of modern workflows, there may be prototyping or social engagement before the create and design phase, with analytics from the social media postings providing feedback into the product design.

Steps within include:

• Collect customer data from online opt-in
• Capture customer data from in-store loyalty clubs
• Manage and analyze customer data in a secure CRM system
• Manage billing and receivables
• Capture email open, click through, and opt out rates
• Report detailed distribution metrics
• Analyze and respond to color output data from multiple locations and devices.
• Build an ongoing strong social media community around the project
• Gather, listen and respond quickly to customer feedback
• Consider managing social media in a coordinated fashion by using a Social Media Management System (SMMS)
• Use online data and web analytic tools to track and influence new rapid-response multi-channel marketing campaign deliverables, to maximize campaign effectiveness, build customer loyalty, and drive ongoing revenue streams
• Utilize online data analytics to extend subscriber base and to generate new advertising revenue

If you are in a print-only workflow today, it is likely that engagement is a new stage in your workflow. When implementing the Report & Engage stage in an IMW, new techniques and processes should be considered:

• Explore methods to gather customer responses including opt-ins, Facebook “likes” and Web page analytics
• Learn how social media can be employed to further ongoing engagement
• Master techniques for deploying social media on behalf of your customers
• Listen and respond to analytics and customer feedback while driving new revenues
• Promote and utilize new social content platforms, the new currency of customer acquisition
• Ensure privacy & rights management while creating opportunities and protecting intellectual property

RELEVANT STANDARDS & SPECIFICATIONS

• ACS (USPS Address Correction Service)
• FOAF Metadata to create Social Media linkages
• MPA Tablet Metrics
• OWA (Open Web Analytics)
• Google Analytics
• Adobe Analytics
• OpenEFT Analytics: Enable employment of any analytic engine including Adobe Analytics, Google Analytics, Spring Metrics, Whoopra, etc. for tablet editions