

Backend technology serving the leading web-to-print sites

PERSONALIZED
IMAGES



PERSONALIZED
VIDEOS



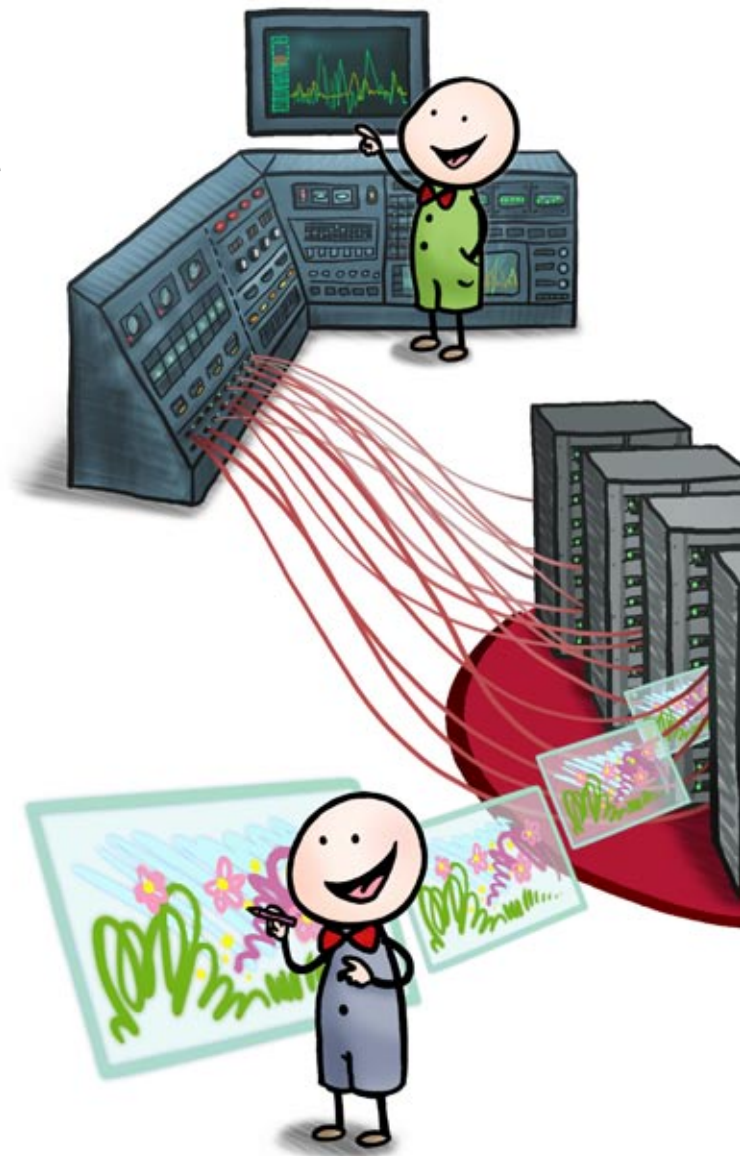
PERSONALIZED
DOCUMENTS

- Use personalized images and documents online
- Web APIs for easy integration
- Flexible product previews
- Powerful production workflow

High Speed Multi Server Concept

High Output and Less Administration

The system is fully scalable and can be flexibly configured by the administrator. Four rendering instances lie at the heart of each DirectSmile Integration Server, resulting in fast and reliable rendering of your image files. An internal cache is used as a buffer for previously rendered motifs ensuring optimum high speed image output. Whether over a central high-performance server or shared installations – you can use current hardware to full capacity and configure the system to meet your own requirements, changing or adding additional services whenever needed.



Layout and Design

Ideal Individualisation with DirectSmile VDP-Studio

Unrestricted freedom in design and creation is your priority? Put the power of images to good use with the bundled DirectSmile VDP Studio software. It gives you the possibility to create variable documents in your own working environment with InDesign and to create personalized image sets with the DirectSmile Designer. Just a few clicks and your files are uploaded and available world-wide on the DirectSmile Integration Server. And to make sure that you that you stay in the picture, no matter how many images are uploaded, we keep your product administration easy-to-handle with a well-organized tree-structure ascertaining that you can quickly and easily find all documents and image sets.

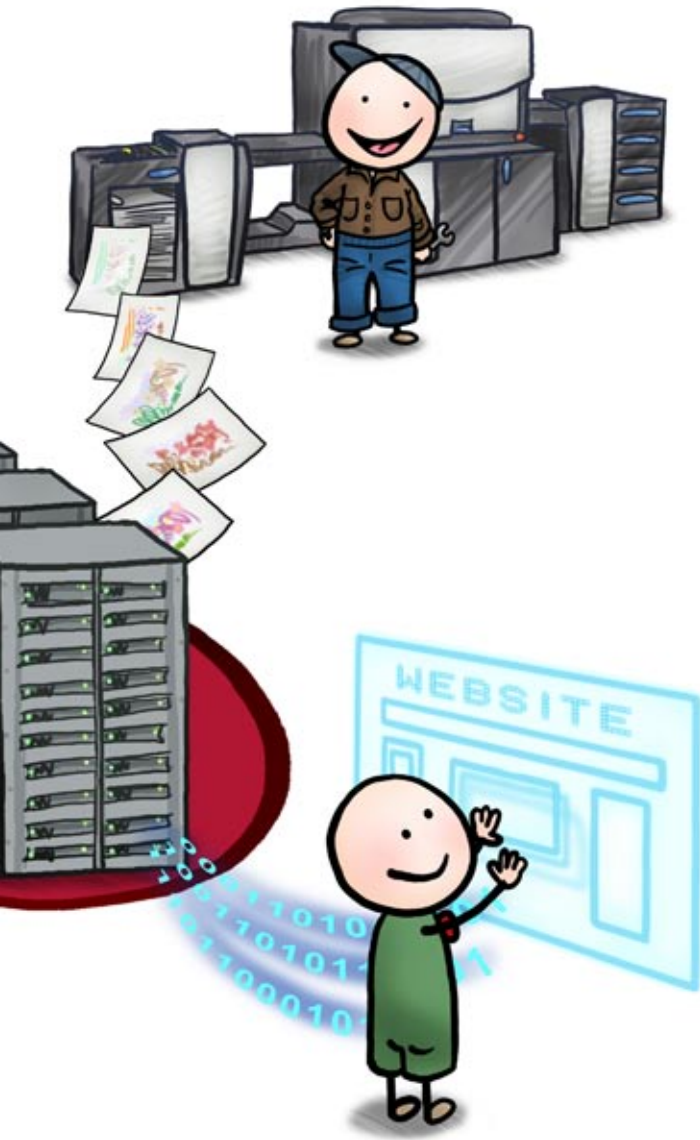
More than a million images a day – fully scaleable for any

The Direct Smile Server is the Ace in your hand! Giving you the support and certainty to improve your product sales and promote your advertising efforts with all essential product images. Incorporate image personalisation and variable documents wherever needed and at the speed you require. Connect your Online Shop with the DirectSmile Integration Server and start selling personalized products – whether B2B or B2C – with realistic, personalized images.

Workflow and Print Production

Integrated Workflow to the point of Print

The DirectSmile Integration Server is a total production system which renders image-sets and documents – even in high resolution – for output as print-ready PDF files. All you need to start the production of your personalized image products is an appropriate printing system. Processing of print data happens seemingly all on its own as the automatic workflows minimises any manual preparatory tasks. This means you save time and effort and your specialised staff can concentrate on more important issues. Even imposition is part of the software solution and can be integrated into the workflows.



Integration with APIs

Flexible Interface Development

The DirectSmile Integration Server delivers personalized images and documents as graphic or PDF files. These are ideal for use in your web page and will convince the visitors on online shops and e-mailings alike. The APIs available ensure that any programmer can quickly and easily integrate your image motifs into your internet presentation.

You have total integration flexibility into your applications as there are three possibilities available: Web Services (SOAP), URL call (http) or WCF.

online and cross media application.

Your enthusiastic customers will give your sales a boost. Raise the impact of e-mails, MMS and Flash files by including personalized images. Create an elegant communication path with individualized product brochures which can be downloaded from your website. The decision to connect to the DirectSmile Integration Server gives you sheer endless possibilities.

How can you benefit from the DirectSmile Integration Server?

- Enhance the effectivity of your internet or mobile applications by using image personalization and variable documents to make your web pages, online shops and web-to-print applications more attractive
- Incorporate personalized images in your E-Mailings which enhance the content of your advertising message and trigger a higher response
- Present assertive, personalized product previews to motivate your customer's purchasing habits.
- Use the effect of variable, personalized content in graphics or PDF in order to support your advertising promotion and product information.
- Online orders can be produced automatically on your digital production printing system

Hierarchic Item Management with virtual products and no redundancies

The profitable usage of personalized Images and Documents requires an easy-to-handle infrastructure. That's why the DirectSmile Integration Server organizes products and product groups (image sets and documents) within an innovative, hierarchically structured system based on a tree-structure.

With this special structure it is possible to create variations from a master product. The variations can have their own name, previews and properties and they are defined as "virtual products". The concept of virtual products not only avoids product redundancies it also cuts administration time and resources.

The associated management tool works conveniently in a browser but can also be installed locally on your computer. Specific characteristics such as tags or sortings will help you build up and manage a comprehensive product catalogue. You can even attach user-defined product properties: for example article numbers used by external applications. This way the DirectSmile Integration Server integrates into your entire IT infrastructure.

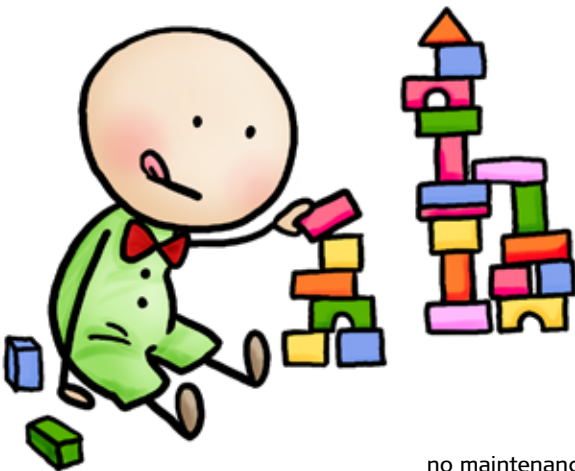


This shows you how easy it is to create a new (virtual) product:

Select a document master for the type of product. Drag & drop the master attribute over to the image set or sets you want – that's it. The new products are now listed and are available for preview as soon as their master data have been updated. In this example you can see the product previews in the DirectSmile Card & Gift Shop front end.

Highlights

- Scalable production class server system for rendering image personalized motifs and documents – up to a million images per day, unlimited performance
- Provides images and documents via API, using Web services (SOAP), URL calls (http) or via WCF
- Includes hierarchical item management for time-saving administration of image sets and documents
- Automatically created, photo-realistic previews and immediate preview of personalized products
- Includes market leading image personalization and full VDP functionality. User can upload whole databases
- Automated workflow for print production, from InDesign based document creation or image personalization to print production
- Interface for online shop



Intelligent Architecture for Simple Administration and Reliable High Performance

The high performance delivered by the DirectSmile Integration Server is based on the concept of several rendering instances working in parallel and which can be augmented according to requirements. As soon as the system is installed and configured, the DirectSmile Integration Server needs almost no maintenance. The internal load-balance functionality manages and monitors the rendering instances fully independently. Not only does it intelligently allocate the rendering resources to the jobs, it also triggers a re-initialisation of any rendering instance which, for whatever reason, could not finish rendering a job.

Flawed jobs are identified and all operations can be reviewed via a “Command Centre”. In the event that external intervention becomes necessary, an automatic “watchdog” e-mail is distributed.

When rendering images, there are various special requirements to be met: a preview must be available within fractions of a second to make the viewer enthusiastic whereas the rendering of a high resolution document is less time sensitive.

The DirectSmile Integration Server meets this challenge with its intelligent architecture. Two print queues allow administration of jobs with differing priority and give time-critical jobs priority over larger (or less important) jobs. This guarantees instant image availability and assures maximum capacity output from the rendering instances.

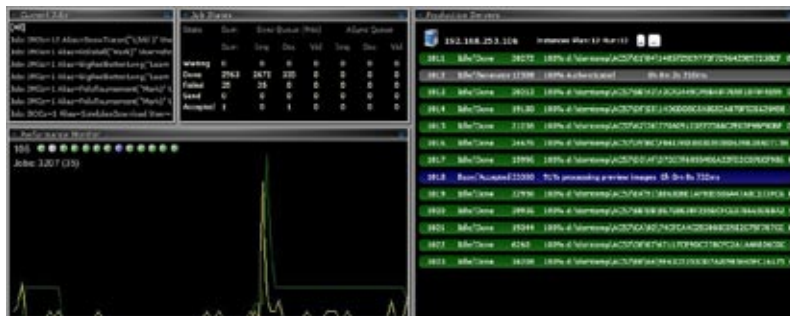
Multiple Job Cache and Autoscaling

The DirectSmile Integration Server is the next generation of a well established product offering improved features and enhanced functionality gained through user experience.

Caching multiple jobs and autoscaling are two examples:

Using image sets in various jobs requires the image sets to be available in various sizes and the upload of all different variations of a set to the server. But with the DirectSmile Integration Server there is no need to upload the various sets – the server's "autoscaling" will scale the relevant set down to the size in which it is needed. As a result, less storage space is used and administration effort reduced.

The caching of images is an important factor when creating images at high speed. Multiple job caching makes those images already rendered and cached available for more than one job. This enhances system performance and saves time, specifically when using the same images or variations and also when re-rendering jobs already printed.



Administrators will find several tools to monitor the DirectSmile Integration Server and to retrieve statistic information. In the picture you can see the a monitor which shows the status of all rendering instances.

Security

Your applications are easily implemented by any software programmer using the APIs available. In this context, security is a vital issue. If you decide to use the so-called "URL calls" for this purpose, the following three methods prevent misuse:

- "URL sealing" will transmit the URL for retrieval of the image in clear text and include a checksum
- A secure image retrieval will include an Authentication Code in the URL instead of a login name – the login then cannot be read out
- The "Refer & Gateway" functionality requires a pre-defined gateway for image retrieval per image URL. This prevents unauthorized image retrieval via any other website.

In addition to these technical (API) methods you can control the access and use of your images based on user-rights such as access to images with watermark or previews only. The new user-definable watermark function allows you to make the image source clearly visible.

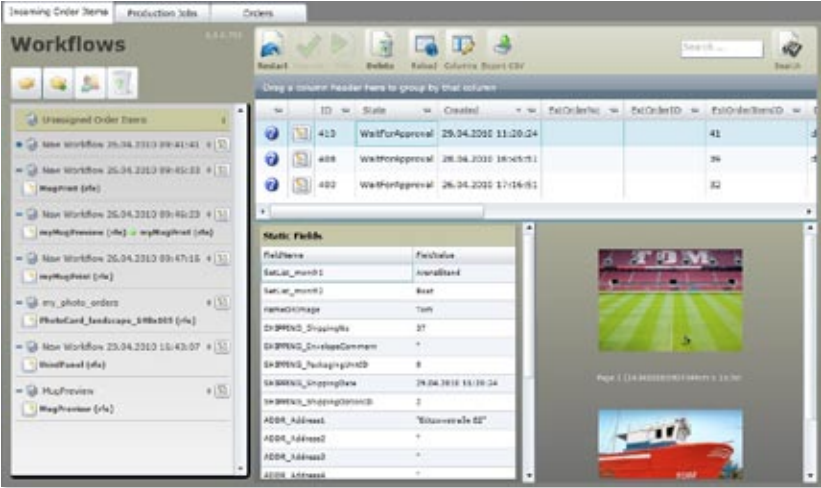


Workflow

The DirectSmile Integration Server helps you not only with the rendering of your print files but also imposing them and streamlining your print production with automated workflows.

A special feature is the DigiPrint Workflow with order-independent accumulation and efficient printing of same-format-pieces on multiple printed panels. This saves cost and allows you to produce several high-quality, individualized prints on one print sheet. The daily production is easily and comfortably monitored and administrated via browser. From here you can allocate jobs to workflows or let the server do the job automatically on the basis of a set of complex rules.

Additional useful functions are available such as automatic imposition (subsequent changes can be made) or the electronic job ticket and the ability to review and reprint orders any time.



The screenshot shows a web-based interface for managing workflows. On the left, there is a sidebar titled 'Workflows' with a tree view of 'Unassigned Order Items' and several workflow entries, each with a date and time. The main area features a table with columns for ID, State, Created, EstOrderNo, EstOrderID, and EstOrderItemID. Below the table, there is a 'Multi Fields' section with a list of fields and their values, and a preview window showing a grid of printed images, including a soccer field and a red boat.

In the workflow window you can find the workflows to the left and print jobs to the right. The jobs in the picture are waiting for approval, which can be carried out either manually or automatically.

Create product previews with the “set-wrapper”

Photo-realistic previews are important for selling products online. But their preparation can be complex and expensive when specialized software-engineer know-how is needed. Inconsistency between the online preview and the final product will result in complaints and disappointed customers.

With the DirectSmile Integration Server it is very easy to create personalized product previews and almost anyone can prepare them because no special skills are needed. Each image-within-image set can be used as wrap for a personalized preview. You will be able to add as many products to your shop as you like without worrying about additional software engineering cost.



Features

- Online Image Rendering Server with multiple rendering instances
- Integration via Web Services (SOAP), URL call (http) or WCF
- Hierarchic item management
- Production of image personalized images and documents
- Limitless performance based on scalable Multi Server concept
- Includes market leading image personalization
- Ability to render offline jobs from a DirectSmile Workstation
- Binding Preview (online-documents are print-documents)
- Automatically created photo-realistic product images
- Browser based backend administration for multiple users, accounts, repositories, items and rendering instances
- Automated workflow: From InDesign based document creation or image personalization to printproduction
- DigiPrint Workflow: order-independent accumulation and printing of same-format-pieces
- All printjobs appear in browser and can be assigned to a workflow
- Supports complex rules for assigning of jobs to a workflow
- Automatic Imposition (can be changed for existing jobs)
- Elektronik Jobticket
- Custom states for individual workflows e.g. incl.finishing
- Orders can be reprinted and monitored at all steps
- Automatic set scaling
- Supports Transparencies and Alphachannels in online-Sets (TIFF/PNG)
- Non-redundant item management with virtual products
- Hierarchical item management with productgroups, products may belong to multiple groups
- Individual product tags (strings) for filtering or catalogues
- Products can create variants with different names, Thumbnails, properties, tags and layer-settings
- Custom product properties (e. g. versioning, properties of external applications)
- Customised sortation and showing/hiding of products or productgroups, including view of all items (sets, documents, DirectSmile Cross Media Templates)
- Whole or partial export of item management

Minimum Hard- and Software Requirements

- Windows Server 2008 Standard Edition x64 inc. 5 Cals
- Dedicated Server with min. 2x Intel Xeon Quad Core CPU 2.4GHz
- 16GB system memory
- 500GB redundant hard drive
- 1280x1024 Display High Color
- 1 Giga Bit network adapter
- Redundant power supply recommended
- Optimised for IE 8



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