

CASE STUDY

PAGEFLEX®

Campaign Summary

Objectives

- Speed up the time for the production of the flight maps used in the sales and marketing materials produced by DHL
- Automate the way in which flight maps are created and updated
- Develop a solution that will be embraced and fully utilized by DHL employees
- Provide DHL with a way to save costs on the creation of flight maps

Results

- Prime Group used Pageflex Storefront to automate the process of map creation and enable maps to be created instantaneously
- Production time has been reduced from two to three weeks to an instant
- DHL is now able to produce maps that are even more accurate for only 4% of what the company was paying under the old system
- The new solution is being fully utilized by over 200 DHL employees around the world



Prime Group and ROI Software Distribution Enable DHL Aviation to Create Flight Plan Artwork 'On the Fly'

Using Longitude/Latitude Coordinates To Create Variable Flight Maps

DHL uses flight maps that graphically display all of the flight plans and routes on which the company operates its worldwide air freight courier services. These flight maps are based on specific airport and route information around the world, are updated frequently, and used extensively in DHL's sales and marketing literature. They needed a solution that would speed up the production of these maps, increase the accuracy of the maps, and encourage use by DHL employees.

Specific objectives of the program included:

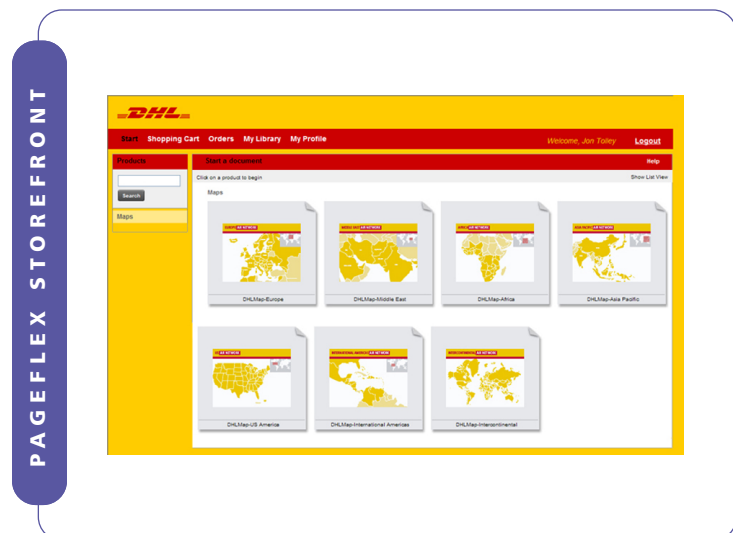
- Speed up the time for the production of the flight maps used in the sales and marketing materials produced by DHL. The old system required two to three weeks of production time to create maps that were often out of date by the time the marketing materials would be produced.
- Automate the way in which flight maps are created. The previous system used a combination of hand-drawn maps and graphics software to create these maps.

- Provide DHL with a way to save costs on the production process of flight maps.
- Automate the process for updating route information so that users have immediate access to the most up-to-date route information.
- Develop a solution that will be embraced and fully utilized by DHL employees who had stopped using the old solution out of frustration.
- Create a system that would enable employees to extend the use of flight maps in other materials and presentations.

Since the system was implemented, DHL has enjoyed cost savings and reduced production times, while having the system embraced by DHL employees around the world.

Specific results:

- Prime Group replaced the time-consuming manual process of map creation with an automated solution that enables maps to be created instantaneously using Pageflex Storefront.



To create the system, the team redrew all the maps adhering to DHL brand guidelines. These maps were then turned into templates using Pageflex Studio. Once the templates were created, the team then realized that by utilizing a database of airports and locations, including appropriate three-letter airport codes and longitude/latitude coordinates, it could automatically plot the locations of all the airports DHL serves. Work was done to take that database and create a maps database with a row of configuration data for each map template.

- Production time has been reduced from two to three weeks to an instant. Previously, a centralized design agency would create the artwork based on hand-drawn maps provided by DHL. This meant that the agency would have to redraw the location of the airport using its graphics packages. Once the map was created, it would have to go back to DHL for approval.

With the new system, a user simply logs in to the site, uploads the latest flight routes to plot, and is instantly presented with a personalized map that details the flights they require.

- Accuracy of flight maps is greatly improved and adheres to DHL brand guidelines.
- DHL is now able to produce maps that are even more accurate for only 4% of what the company was paying under the old system.
- The solution is being used by over 200 DHL employees around the world.
- DHL employees are using the system to extend the power of map creation beyond marketing materials. They are producing maps to be used in proposals and sales materials. In addition, the flight map creation is also being utilized by agents who resell cargo space.

Developing A Complex Solution

The solution envisioned by Prime Group and their technology partner, ROI Software Distribution, was a complex one: Automate how users around the world create and produce complicated route maps for one of the world's largest commercial aviation services. The project would call for the team's collective

ability for creative thinking, innovation and technical execution.

They began the process by redrawing all seven of the maps used in the project. These maps had previously been hand-drawn and then recreated by DHL's marketing agency. The manual process was prone to errors, so the team redrew all seven map areas following the DHL brand guidelines.

The next step was to create templates of the maps that could be used in Pageflex Storefront. Using Pageflex Studio, one template was created for each area map and one template was created for each map to be produced, containing the requisite jobs for outputting the maps in the requested formats.

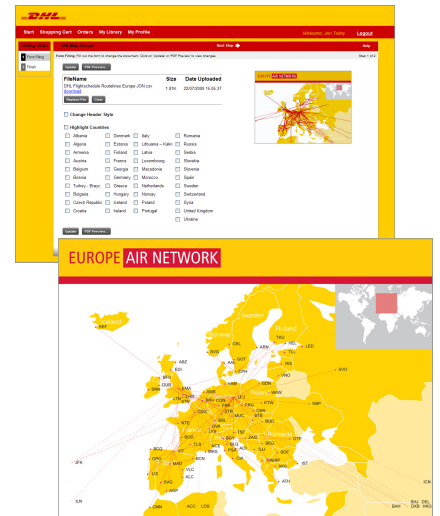
Having reached this stage in the project, Prime Group realized that it could automatically plot the locations of all worldwide airports using longitude and latitude settings. They found data that contained the three-letter IATA code for every airport and coordinated settings in degrees, minutes and seconds for every airport and used that data for the creation of a maps database.

This new database featured a row of configuration data for each map template, including the projection model, the coordinates for the map edges, the size of the map on the document, and the projection co-efficients and skew values. This was necessary to allow for the curvature of the Earth when a map is drawn flat. The data was linked to each of the maps to pinpoint the locations.

A program interface was implemented against each template/project to achieve the following workflow:

- User selects appropriate map to use.
- User uploads a database of flights to plot on the selected map (this database has origin and destination codes for each flight).
- Document action ingests this information and looks up the longitude and latitude coordinates for every airport needed from the central airports database.
- Document action then accesses the relevant map configuration information for the current template from the maps database.

- Utilizing this information, the position of each airport required is plotted on the map and drawn in using pre-defined images and text containers.
- According to the associations stated in the flights database, lines are then drawn between the appropriate points to display flight paths between locations.



Company Information

Prime Group

Based in Nottingham, UK, Prime Group is an award-winning printer and one of the UK's most creative and cutting edge printers. Prime Group provides their customers with a consistently high level of customer service, outstanding quality, and innovative solutions, and was honored in the calendar category at the 2008 Digital Printer Awards.

ROI Software Distribution

ROI combines software, services, and marketing with the best of breed technology to help companies dramatically extend their market reach and improve the effectiveness of their communications. ROI enables businesses to present their client base with value-added offerings that deliver faster turnarounds, tighter brand control, and reduced correction cycles.