

Ardanuy



INFO PROJECT



DOCUMENT MANAGEMENT AND ORGANISATION SYSTEM
FOR RAILWAY PROJECTS

INTRODUCTION

Bad document management and organization can cause companies to lose a great deal of time and resources, while damaging customer relations. Ardanuy Ingeniería S.A. presents an innovative tool, using the latest technology to help organize documentation and aid relations between company and client.

The tool allows both employee and customer access to project documentation by Internet, via a simple interface. Reports, drawings or meeting minutes are quickly provided to the client from any location with internet access, so that they can be downloaded in PDF format. Employees may use it as a consultation library at or away from the office, without having to search through large folders on big shelves.

In addition, in order to make the conversion of documents into PDF easier an auxiliary tool has been created, able to convert a large amount of different document types (Word, Excel, AutoCad, Presto, etc.) to PDF automatically.

The R&D department of Ardanuy Ingeniería S.A., taking advantage of new technology and the rapid expansion of the internet, aims at providing companies with better document organization helping both the company itself and its clients.

● Background

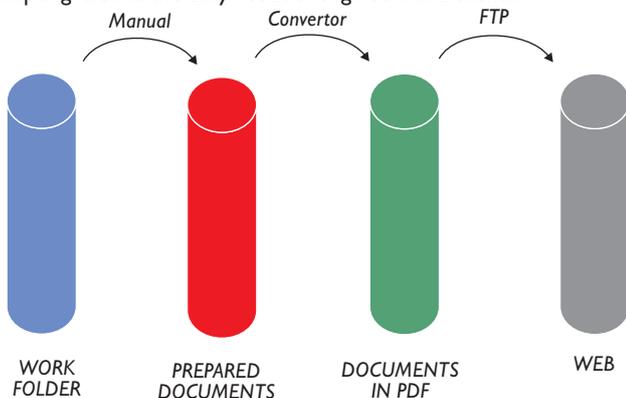
The idea for this project came from a wide-ranging analysis of the common problems in companies. This analysis showed two main problems; document organization and client-supplier relations, which are not necessarily connected with the quality of service, but are connected with a possible negative effect on company results.

According to different studies, employees spend between 10 and 20 percent of their time searching, recuperating, recreating and organizing documents, which means a lot of wasted time. In industries where many documents are generated, this can affect the decision making process. To accelerate this process and to reduce the time and complexity associated with storage, organization and location of corporate information, a tool is needed which also provides competitive advantages in terms of company knowledge while also guaranteeing the security and integrity of this information. The result is an increase in the agility of the company and a more productive staff who manages and uses documents in a more secure way.

Taking advantage of the world-wide expansion of the internet today, this solution must be accessible via the web. In this way, the installation of software in computers is not required and the information may be consulted from any part of the world.

The relation between a company and its clients is also indispensable to the final result. Keeping open the largest possible number of communication channels between both groups considerably improves said result. This tool provides a new channel which allows both parties access to the documents generated during the realization of a project, including meeting minutes and emails, and avoids possible misunderstandings which could harm relations.

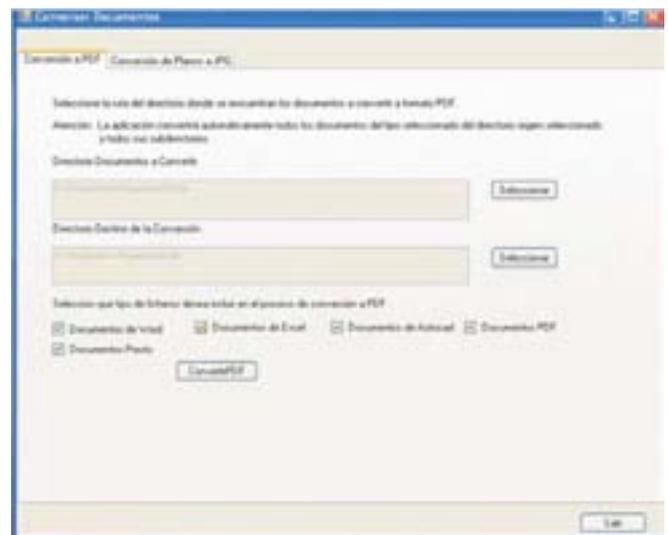
At present, the tool is in use by personnel of Ardanuy Ingeniería S.A., adapting itself to the daily needs of engineers and clients.



● Main Functionalities of the Software

The solution proposed by Ardanuy Ingeniería S.A. is supported by the strong growth in new web technology. By way of an internet server and a series of pages and databases, project documentation will be accessible from any point on the net.

The first step consists in selecting the information to be uploaded. Obviously, an employee's work folder will be organized according to how they work. This is not about changing personal work habits, but about adding a new tool to company which can benefit everyone. So, when a project manager decides that a document is complete and ready to be published, it is placed in a folder with the project code.



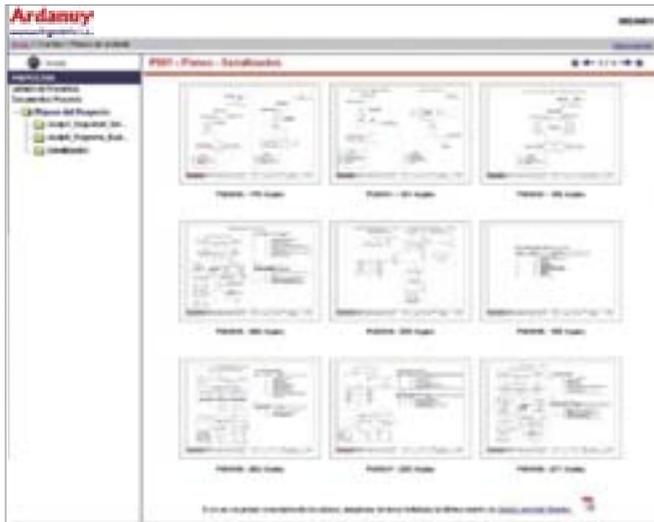
The next step is to standardize the information. To complete this, a Windows application has been developed which allows the conversion of large amounts of documents in different formats to PDF. This format, in addition to barring modifications, provides easy viewing of the information and is of general use.

When opening, the application asks in which folder the documents to be converted are and where they are to be saved. In this way, all project documents, even several projects at the same time, can be converted automatically, without having to go to and convert each one separately.

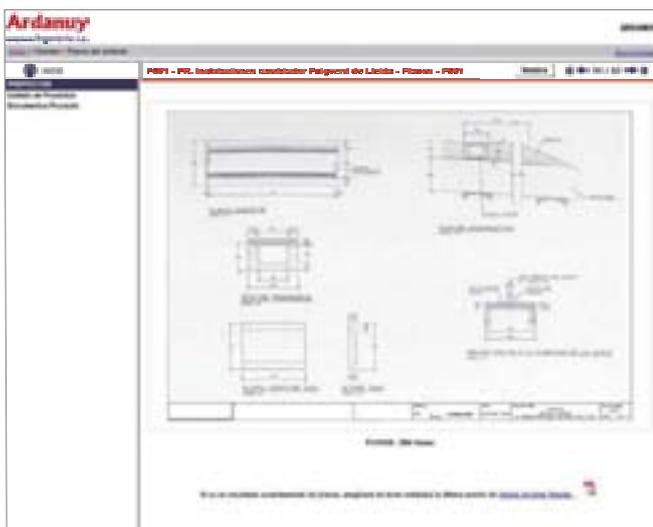
The programme executes in the background and when finished shows a Log window with the result of the conversion. In this way it is possible to check which documents have produced an error and what the reason for this error is.

Once the documents are selected and converted to PDF, they can be placed on a web server by way of a FTP to show them by way of a simple and intuitive interface.

The start page asks for a user name and password. In this way one can identify the person accessing the system and show different information depending on their profile. Company employees will be shown all the projects; the clients will only be shown their corresponding ones. The security and confidentiality of data are therefore guaranteed. In addition, each page visited and each action carried out is registered in a log so that the Ardanuy Ingenieria R&D team can take note of any possible errors or system attacks.



Once inside, a project list is shown in the shape of a tree. As previously mentioned, employees will see all projects which have been uploaded to the web server. They can use it as a reference library, from any computer or device with internet access, at any time. Each branch of the tree shows the internal code of the project and a brief description. When one is selected, the documents can be navigated as with Windows Explorer. Thus, the users do not have to learn a new way of working, as they are already familiar with the Windows operating system.



It is important to highlight the integration of this system with the company's management system or ERP. Thanks to this integration, its

functionalities can be used. For example, if the ERP contains a file with internal information each project of the company, it is logical to add a link to this file which will open expanding the folder of project documents.

When a document is selected it will open in a new window, using the Adobe Acrobat Reader programme, which is free and widely used.

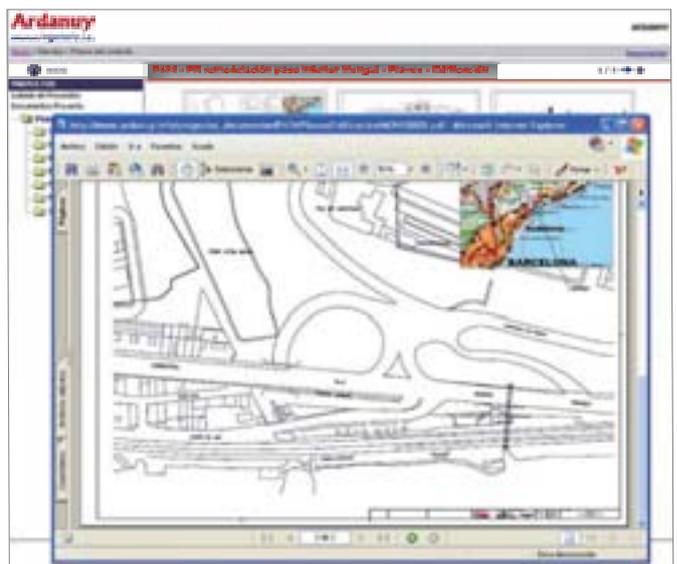
The treatment of drawings and photographs is different. As these are a fundamental part of many projects, they have been given extra functionality, adding different ways of viewing them.

When a project is selected a link appears on the left called "All Drawings" which permits the user to view all project images in a mosaic.

A preview can also be opened which shows the drawings in a larger size, without having to download them completely.

If the user decides to navigate using the tree, within the drawing folder, the drawing branch of the tree is moved to the left-hand menu and only those drawings in the selected folder will be viewed. In any case, the drawings can always be downloaded in PDF format.

The images for viewing drawings are automatically created in the conversion programme, if it detects that the file is a drawing. In this case we are dealing with drawings, but as previously mentioned, this can be adapted to any image or other type of document, such as photographs or designs.



● Conclusions

A good document management and organization system bears fruit in the results of the company and the satisfaction of the clients, especially in those projects where results depend on the quality and consistency of the presented documents.

With INFO PROJECT, an electronic document manager which is easily implemented and maintained, documentation is controlled in a more specific way, this being an advantage for managers, staff and clients. The advantages and expansion of the internet are harnessed, allowing you to differentiate yourself from your competitors and achieve more objectives in a shorter space of time.

The tool is adaptable to the needs of any company and is easily integrated with other management systems that may be present.



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