



ABBYY FlexiCapture® Processes Engineering Designs for a Chinese Nuclear Power Giant

Customer Overview



Name

China General Nuclear Power Group

Location

China

Industry

Government

Web

en.cgnpc.com.cn

Challenge

Extract data from engineering design schemes in Chinese language

Solution

ABBYY FlexiCapture

Results

- Automatic extraction of data from engineering technical documents
- 1 day to set up the program
- 1 year to complete the project

Becoming one of the world's top producers of clean energy is an ambitious goal envisioned by General Nuclear Power Group (CGN, formerly known as China Guangdong Nuclear Power Group). Founded in 1994 with a registered capital of RMB 10.2 billion, by now it has grown into a major industrial group under the auspices of the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council of China. CGN comprises of more than 30 subsidiaries and R&D centers, the core one being China Nuclear Power Engineering Co., Ltd. (CNPEC), responsible for nuclear power engineering, construction and management. Since its foundation in 2004, it has become the backbone of the industry, its projects ranging from construction of nuclear and conventional power plants to water supply and drainage to civil engineering contracting.

Challenge

As any other paper-intensive enterprise CGN finally began to see its business restrained by mountains of paperwork. Every year a multitude of schemes, engineering drawings, blueprints and building designs is produced and accumulated at a snowballing rate. No wonder that managing paper documents on such a large scale caused problems:

- Inefficient and slow retrieval of the necessary paper documents requiring disproportionate manpower efforts and money expenses;
- Costly and space consuming storage of physical copies;
- Data loss due to damaging or complete destruction of hard copies of documents.

The necessity to digitize paper documents wasn't a revelation as such solutions had been present on the market for a while. The first option to consider was the simplest one — manual entry, but it's slow, error-prone, and expensive in terms of human labor costs.

Solution

OCR is a way of automation of data entry, which is more efficient than manual, but is inapplicable to handprinted documents and can not extract only the necessary data.

ABBYY Partner

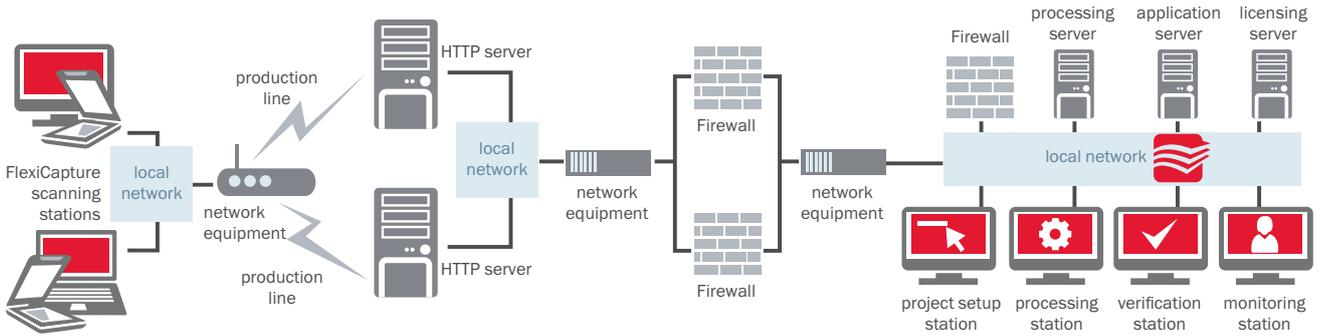


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And finally, there is Intelligent Document Processing, based on Data Capture with built-in OCR&ICR technologies, which is a cutting-edge solution of modern days. It allows capturing necessary printed and handprinted data, classifying documents and extracting information from the most intricate layouts with maximum accuracy.

In the course of painstaking four-month research which included testing and benchmarking technologies offered by all vendors present on the market, the preference was given to strategic long-term solution on the basis of Data Capture Technology, offered by Shanghai Taibi Information Technology LTD, which combined both wide range of necessary features and high scalability and flexibility.

The expert in end-to-end solutions in imaging, scanning, project consultancy and developments, used ABBYY technologies as the core element of the solutions. Moreover, ABBYY Partner in China has the time-proved expertise of successful projects based on ABBYY technologies, which in China has more value than any advertising campaign.



CGN needed a single entry point for huge volumes of variable documents, most of which had very loose layouts, including engineering drawings, schemes, tables with printed and handprinted data, etc. ABBYY FlexiCapture ensured the extraction of these data using flexible templates, which CGN learnt to design themselves after a special training.

Besides ABBYY data capture technology is one of the few technologies to provide excellent recognition of Chinese scripts.

The whole project was composed of a few steps:

1. One day for setting up and customization of ABBYY FlexiCapture + 3-day training of creating flexible templates for CGN professionals.
2. All the design schemes, blueprints and other documents were scanned and imported into the system, which ran 24/7 unattended and uninterrupted.
3. The system analyzed the documents according to the created flexible templates to automatically find tables, identify the required fields and extract data from them.
4. 100% accuracy was a necessary requirement; therefore a group of trained operators verified both uncertainly recognized data and misprints in original documents.
5. Finally the extracted and verified data (text, tables, engineering diagrams, etc.) were exported into SAP ERP system for further processing and analysis.

Results

China General Nuclear Power Group is China's colossal state-owned enterprise. Over the years since its foundation it had accumulated tons of paper documents containing engineering designs, blueprints and other technical information. ABBYY Partner in China, expert in end-to-end digitizing and data capture solutions, implemented ABBYY FlexiCapture to extract the necessary information and visual material from the documents. It was a challenging task because engineering schemes and plans generally have very loose layouts and there is a great variety of them. Thus, ABBYY FlexiCapture was a perfect fit because apart from an excellent support of Chinese scripts it could be easily customized for the project requirements — from designing flexible templates to scheduling the workflow.

In the course of the project all the engineering documents accumulated over the years were digitized and processed with ABBYY FlexiCapture over the course of only 1 year. The Company has saved time needed to access the information, human labor which otherwise would have been engaged in manual entry and verification, and resources previously wasted on storing physical copies.

About ABBYY

ABBYY is a leading global provider of technologies and solutions that help businesses effectively action information.

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