

ABBYY FineReader Engine goes TV!

The search is over

Traditionally Optical Character Recognition (OCR) Software is associated with use in home offices, companies, and government agencies in which large amounts of documents are scanned, edited and archived. However, advanced OCR solutions are flexible enough to be integrated with a variety of different applications. In addition to document archiving and processing, OCR can also be used by the media industry for archiving video.

ABBYY FineReader Engine, for example, has been integrated within Solutions for Media's (S4M) Video Preview Management System (VPMS), a product currently in use by major German television companies. VPMS is a Video Content Management System for professional creation, management, editing and distribution of digital videos. S4M integrated ABBYY technology in order to recognise and record key video text used for classifying and sorting video footage. A version of S4M's VPMS system integrating FineReader OCR is currently being used by German cable TV channel RTL.

Day and night, news agencies across the world send millions of satellite video feeds to nationwide and local TV channels for use in television news broadcasts. As a result, television stations find themselves managing hours of relevant pictures, all of which must be categorised and made ready for reporting immediately. VPMS manages this process. The VPMS system not only controls the precise recording of the videos, but also digitises the movies automatically so that editors can easily and quickly watch and edit the footage directly from their personal computers during the recording process.

But even the best videos are worthless if they can't easily be filed and located for instant use. To make videos easy to categorise and search, videos are tagged with "meta data," key pieces of text information which describe the content of a video. Meta data is usually found in the form of a text table that is displayed at the beginning of each video feed. These tables display the title, duration, number and a brief description of the video.

How do these data find their way from the screen to an archiving system?
That's the moment when ABBYY FineReader Engine gets involved.

S4M's VPMS creates a "freeze frame" (JPEG file) of the text table with the meta data. The problem is that JPEG files are just "pictures" or images of text but they cannot actually be searched or exported as a key pieces of data. ABBYY FineReader is used to transform a freeze frame from a static JPEG image file to a text file that can be searched according to key word. The recognised text, once converted, can be easily exported directly into the RTL database so that it can be categorised and later accessed.

This sounds simple, but it is not. The text table is saved in the MPEG-1 video format with an image resolution of 352 x 288 pixels. Recognition at this resolution typically presents a real challenge for OCR software. ABBYY FineReader successfully converts these images because of its sophisticated image pre-processing functions. This technology separates the text from the background to pull out key words with extremely high accuracy. The recognition quality convinces even TV professionals.

"Any OCR software integrated with our VPMS must be very powerful," explains Holger Noske, Director Digital Media Management at S4M. "With meta data in particular, extremely high accuracy is required. In our daily use under these complicated circumstances, ABBYY FineReader proves that it is possible to deliver high accuracy. No doubt, we are more than pleased."

RTL Television's Department Head of Digital Media Systems Dr. Guido Falkemeier explains how the integration of ABBYY FineReader with S4M's Video Preview Management System has made the RTL image monitoring department's life much easier. States Falkemeier: "Capturing meta data grows increasingly important as our need to find information more quickly and easily becomes even more essential. Automatic recognition of meta data speeds up the process of sorting and finding key meta data significantly. Our Media Managers no longer have to type the text from the screen, they just verify the text recognised by FineReader. The excellent recognition accuracy of FineReader makes their work much easier. For our audience, this means that news can be broadcast to them faster."

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S4M - Solutions for Media

Cologne based S4M - Solutions for Media GmbH was founded in 1996 and develops and distributes software solutions specialised on the broadcast and newmedia industry. S4M systems are used in 30 countries around the world. Solutions include airtime sales or video content management, including program planning, license- and rights management, ratings analysis or Cross Media Publishing. The S4M portfolio includes professional consulting services.



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