Digital Tapeless Solution for HD/SD TV Stations and It's Workflow Automation

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Abstract. This paper tries to present a digital solution for television channels, which can use HD/SD media for HD/SD broadcast with a possibility for automation of the whole business process. This solution, with its functionality and efficiency, can gain huge economic advantages for television companies. In this paper, we try to present the products with its functions and internal integration, and openness for integration in existing, third party solutions. This digital solution is based on a Windows platform. Supported Windows versions are "Windows XP Professional" and "Windows 7". Integration is implemented through database and storage servers – where the broadcast material, with all of its different media types, is stored. This solution covers all the critical points of working with digital media formats and of the business process and its automation, too.   The design of the system architecture is plug-in oriented, using the most modern object oriented concepts of software development. Components are developed using "Microsoft Visual Studio.NET 2003", using C# and C++. Plug-in orientation enables easy component replacement and developing plug-ins for any specific hardware, without the need to intervene in the rest of the system. The system implements client/server architecture.

The plug-ins, provide the main functionality in the server. This plug-in based model imposed itself as modern and flexible way for the needs that this solution required:

Hardware independence of the server – the server is not coupled to a specific hardware (like a video card for ex.), new hardware implementation is just a matter of implementing a new plug-in.

Modern, object – oriented programming approach – the plug-in architecture abstracts specific hardware problems and completely isolates the server from it, leaving this task to the specified plug-in.

Media format independence – because the media formats area (video or audio) is developing in fast pace these last years, the server should be able to adopt them and adopt them fast. Isolating such format problems in a plug-in enabled us to catch with the pace efficiently.

Keywords: PlayOUT, tapeless HD/SD broadcast solution, PlayOUT automation.