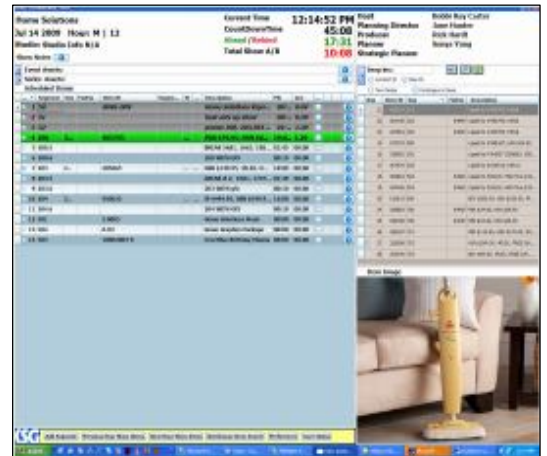# Television Show Manager Software

A FileMaker & .NET solutions for Live TV Operation of a Retail Shopping TV Network

Executive Summary

Mindfire Solutions delivered key software systems for building Live TV shows for a retail shopping TV network. The primary business objective of the complete software was to facilitate multiple different operations (activities and communications) to air a show successfully on Live TV. It specifically targeted towards building the planned and scheduled TV shows before they go on-air. The software took care of operations starting with assigning the shows to Supervising (SP) and Associate Producers (AP), allowing them to build a complete show by adding supporting metadata, and to print/email various reports for specific purposes, before finally delivering the show to the Live Server of the TV network. Mindfire played its part in building systems for Run-up and Run-down operations, integrating them with Show Planning, Production Outline Items, Media Server, and Run-down Live Server.

The client firm's initial engagement with Mindfire started with development for the first version of the comprehensive software solution, leading to development of next versions, including development of supportive/extending tools, solutions, and related services. This Desktop and Web enabled system includes services like data-synchronization between multiple databases using ODBC connections, multiple-user setup, Active Directory login services, and printing/emailing of reports.

About our Client

Client *A Software Solutions Firm* | **Location** *SFO, USA* | **Industry** *TV/Radio Networks Production Operations*

Business Situation

The client firm's (a software-consulting firm) customer, a Retail Shopping TV Network company, did not have a single software solution for Run-up (show building) or Run-down (show execution) show-production processes. They were incredibly manual in how they managed their Show Production process, depending on usage of MS Outlook, Word, Excel, PowerPoint, and other basic tools to manage complex workflows. As a result, they were extremely dependent on emails and phone calls to send requests, to receive request updates, and to communicate status of multiple aspects of the Show Building and Show Executing processes. They operated in a highly volatile work environment, but with ineffective infrastructure, which made it exceedingly difficult to handle the work volumes. Overwhelmed by the situation, the customer certainly needed a comprehensive software solution to manage their workflows for close to 9000 shows they were to produce each year.

The client firm came up with the concept and architecture of a software solution/system for its customer – named ShowBuilder. Mindfire designed and developed major portions of the overall system.

Solution Details

The Mindfire Solution

The system is a multi-tier architecture solution, implementing three major operations.

- **Show Planning** Process
    - o The merchandisers and planners plan a show using the Show Planning Tool (SPT): allocating show-personnel, scheduling on-air date/time, and adding basic show-items. The SPT is an Oracle-10g based solution.
- The **Run-up** Process
    - o This is, essentially, the show-production/building process. The ShowBuilder Run-up system contains all the tools necessary for the SP/AP to produce a one-hour show and finalize it for delivery to the on-air/Live Show Producer, who then executes the show in the ShowBuilder Run-down system. The Run-up system is a FileMaker Pro 10 based solution.
- The **Run-down** Process

o   This is, essentially, the show-execution process, where the final/built show is aired Live on the retail shopping TV network/channel. The ShowBuilder Run-down is a Live/24-hour mission-critical software system. The Run-down is a DotNet based solution.

Mindfire developed the software systems for Run-up and Run-down processes, integrating them with Show Planning, Production Outline Items, Media Server, and Run-down Live Server.

<u>**The ShowBuilder Run-up and Run-down**</u>

The ShowBuilder is running on FMP Server 10, and is available through FileMaker Pro Clients (Desktop) or Web; It is integrated with Active Directory.

The FM implementation is based Data/Interface separation model; 360Works SuperContainer, 360Works RemoteScripter, Script Trigger are implemented to achieve certain tasks.

The SP team, assisted by APs, initiates the show (in their show-assignment queue). They use the system to procure all information and materials (show-items) required to build the show, making requests to other departments to support with Sets, Lighting, B-roll, Audio, Animation, and other required elements.

The SP/AP team place notifications on the Production-Outline grid to alert TV support teams of their requests at item/show/event level with a Communication/Message System (part of the Run-up tool). The respective department fulfills requests and sends them back to the Run-up system.

The Run-up System remains synchronized with the SPT. Plus, it has a workflow implementation to track all requests/progress/approvals. These features help the SP/APs identify with shows and (requested) items.

The Run-up system has an inbuilt feature that sends the show data to the Live server database (designed in SQL Server) to air the show Live on the TV network/channel.

The Run-up system allows the teams to generate reports/screens for Live shows, recap-reports for already aired/future shows; it also allows to printing of reports and emailing of the PDF renditions.

The Run-up system integrates with the Media Server present on the same network to access the media files used in the shows as supporting items.

The Run-down system receives the data from the Run-up system implementation. The Run-down system shows the details of the on-air Live show in real-time, including its segments, and allows the SPs to work on it directly. It uses colour-coding, visual cues and indicators to show show-details. It allows the Line Producer to reorder/drop-in items to running Live show at any time.

Achievements

- We created a greatly simplified design and workflow based mechanism.
- The system designs are extensible – it is easy to add more features, support/integrate with multiple tools.
- The software systems are fast, reliable, and support up to 250 users for Run-up & 15-20 users for Run-down.
- The system design is automated as much as possible – especially with respect to integrated systems.

Technologies

- Planning process: Oracle 10g
- Run-up process: FileMaker Pro 10 Adv, FileMaker 10 Server, 360Works tools
- Run-down process: C#.Net, SQL Server 2005

Final Results

Software System

Figure - Run-up System

Customer Benefits

- The specifications were more on the conceptual side. Mindfire provided product design support where basic requirements were understood and analyzed, workflow and features were brainstormed to come to the best possible design and implementation after elaborate discussions with the client. Communication and co-ordination with the client was the key to decision making on the feature details.

- Mindfire has excellent understanding of the business, architectural, operational, customer base specific considerations and requirements for various steps/versions of the complete system roadmap.

- Mindfire delivered the first version of the system, which closely matched the production level requirements in terms of feature-completion, security, stability, reliability, and performance. Working with Mindfire, the client continues to benefit from excellent talent at Mindfire and reduced overall cost for the software product development along with growth in their business.

Future relationship

Mindfire established a strong relationship with the client firm, having been involved in four different projects in FileMaker and one project in another technology area. Mindfire is already into development of the second version of the systems, which have many new features implemented.