

## Real Time in the Real World

### *How event-driven software makes content relevant and actionable*

Despite a global recession and tight credit markets, digital signage continues to grow, albeit to a more cautious tune. Purchasers have learned a great deal over the years about the medium and are much more demanding about real benefits from their deployments. Simply scheduling a playlist of content does not provide value to the network sponsor or operator. Systems today must have the ability to respond to local conditions providing relevant content to a specific audience.

Real time information about the viewer, the surrounding environment and external conditions provides context to digital signage. It is the key to providing the right message to the right person at the right time. Building your delivery system around real time data is not a new idea but until recently, most software vendors did not offer this capability. As customers demand greater accountability from their digital signage networks, we are going to hear more about it.

In many cases, claims of real time data are not so real. Some lump news and weather information extracted from a RSS feed in the past hour to scroll across a screen as "real time". Some vendors are more sophisticated in their ability to access information but still predominantly poll for information. That means that queries are made at regular intervals and the result is eventually picked up by individual Players to display the information.

In a true real time system, information is pushed to each Player notifying it that new information is available and each Player reacts accordingly. If that reaction is to simply change the price of an item based on a POS database, you have achieved a real time update but under delivered on the potential. If the software is capable of operating intelligently at the Player level, then the content could be optimized on the fly to suit the local situation. This process can be described as event driven content, content that can respond instantly to current conditions based on predefined business rules. Event driven content not only makes digital signage more effective, it dramatically reduces the cost of operating large networks by automating manual scheduling requirements.

Event driven content is a major change to traditional digital signage systems. By defining business rules around what content should play where and under what conditions, each Player can make decisions based on external and internal events or triggers. Some events will be more important than others or a combination of events might have a greater impact than if they appeared independently.

An external event is any condition that occurs outside of the content running at the time. Imagine that someone approaches a screen and picks up a product. A sensor or camera might detect the individual(s) providing information on them such as age and gender. An RFID reader or mechanical switch might indicate what product they picked up. If the system is capable, it may immediately query a central database for information about the product including current inventory (locally and regionally), suggested retail price and any promotional offers. If a loyalty card is used, additional information may be provided based on the profile of the customer. All of this information can impact what content the system selects and how it is presented.

An internal event is something that happens within the content. Approaching the end of an ad may trigger another action to take place such as triggering a related text crawl or dimming the lights in a



theatre when getting close to the end of the preshow. The start of one piece of media may determine a message or associated media to play on a new layer or in another area of the screen. When a video file starts to play, a related image might start to move across the screen. The path and speed of the image might be determined by the duration of the video file.

Content is not limited to a single asset playing at one time. In many instances, viewers look at different parts of the screen for different information. The size, placement, font or other attribute of individual assets might change based on current conditions indicating the relative importance of one piece of information over another at that particular time and place. That one feature has the potential of dramatically changing the way digital signage is used. Businesses have lots of data; their challenge is how to make it actionable. By displaying multiple pieces of information at one time and then allowing it to change in stature based on current conditions, then relative importance can be conveyed between conflicting measures. That makes the decision process much easier for the viewer.

All of this is possible today, but it requires a change in the way people approach digital signage. By focusing on information as a strategic asset to drive content the right message can be delivered to the right person at the right time while dramatically reducing delivery costs.

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