

December 13, 2016

Live Shot Manager Ideation Session



Welcome to Our Ideation Session!

We have gathered all of you here today to talk about the new Live Shot Manager initiative and to build off of each other's design ideas.

Some things to keep in mind...

- No idea is bad
- Diversity of thought is good
- Empathize with the end user goals
- Focus on divergent thinking, rather than converging on a single idea

Overview



Overview

- Introduction
- Defining the Problem
- Part 1: Creating and preparing a live shot
- Part 2: Sat Ops and Control Room
- Design Charrettes



Significance of LSM

A live shot is a real-time segment that can be used for multiple shows. In order for these shots to be incorporated into their show, there needs to be many diverse configurations set for each live shot. These arrangements can include video feeds, audio lines, monitor fill graphics, and prompter.

The feeds currently need to be manually routed and tested very quickly to meet the needs of a live broadcast environment. There are many people involved, it's very verbal communication-heavy, and there is no digital, automated central system to manage these live shots.

By treating live shots as digital objects, it allows us to provide a central, real-time user interface to manage live shots, simplify workflows, and reduce human error. LSM will automate the bulk of the process and allow employees to spend more time doing other work.

User Groups

Current Workflow

Goals



User Groups



Editorial

Producers

They determine the person or place that's going to be in a live shot.

Bookers

Bookers contact the person and will book the studio or truck.



Tech Managers

Technical Production Manager (TPM)

TPMs are always in the control room. They have the production role of facilitating and making sure objects are being routed correctly. TPMs are more involved in primetime shows.

Technical Production Coordinator (TPC)

TPCs are more involved during daytime and weekend shows. They have a greater pre-production role of organizing objects than TPMs. One person can be both a TPM and a TPC.



Sat Ops

Sat Ops

Sat Ops determines all the engineering between our studio and our router core and confirm it with the studios.

They assign all the global attributes and routing information of an object. Only this user group can edit global routing information.



Control Room

Technical Director (TD)

TDs are very similar to TPMs. They actually cut the show and works on creative-oriented tasks like effects. They also help organize control room resources to execute what the director wants.

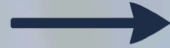
Audio Technician - A1

A1s set up the IFB and PL audio lines and test that everything is running smoothly.



Current Workflow

A booker, producer, or TPM/TPC creates a live shot by typing information like the name, location, and all relevant metadata into an Excel spreadsheet called the Live Shot Sheet.



The TPM or TPC will put in preliminary routing information of the studio and/or trucks and sends the sheet to Sat Ops.



Sat Ops looks at every line of the live shot and makes revisions to create a technical plan for that show.



Sat Ops sends this back to the control room and the control room will then manually set up local routing information and work back and forth with Sat Ops to confirm routing and troubleshoot.

The control room also sends it out to a wider mass of people who take it and executes the technical plan.

Goals

- Minimize human error
- Expedite the process of booking a live shot
- Provide clear, real-time live shot statuses (i.e., who has grabbed and taken?), updates, and notifications
- Reduce wait times
- Create user permissions to show only relevant information to specific users
- Create live shot templates to enable more efficient workflows



Instantiating a Live Shot

Once producers find someone to fill an open live shot segment, an object needs to be instantiated within the LSM system. This step is the beginning of the LSM workflow and is important because this is when all the live shot metadata gets documented.

Generally after a live shot has been instantiated, the TPMs/TPCs will book a studio or truck and confirm their interconnects with them and document it within LSM.

This process will remove the need of an excel sheet to house all this information and limit verbal communication.

***Proposed
Workflow***

Requirements



Workflow Part 1: Instantiating a Live Shot

A producer will find an open live shot segment and decide what to fill it with. If it is a person, then the booker will look up their contact information in Guest Tracker and book them.

Booking in Guest Tracker may auto-instantiate a new live shot object.



A booker/producer will then instantiate a new object, or find the auto-instantiated object from Guest Tracker, and fill in appropriate metadata fields to the best of their ability. They will specify if the live shot is remote or local.



A TPM/TPC will book a studio/truck (if it has not already been done so) and confirm its routing interconnects. That information will be documented in the **technical notes** and preliminary local paths in LSM.



If the live shot is remote, after all appropriate metadata has been filled in, it will be submitted to Sat Ops for review.



Requirements



A reference to see which live shot spots are unassigned or open

- Users need to know where and when there are open live shot segments that still need booking and/or instantiating. Different channels need to be accounted for.



Template-based Forms for Creating Objects

- Remote (needs Sat Ops review) or local
- Each template has associated fields that are specific to that type of shot.
 - Templates for Host, Guest, Event, Studio, Other
- Paths related to that type of shot will also pre-populate.
 - Paths will either be Send, Receive, or Phone
- Users need the ability to add paths as well (i.e., if they decide they need a prompter or another camera).
 - Can select one local source or destination per path



Required Fields: Name, Location, Object type (remote or local), Hit time, Start time, End Time

- The fields above need to be required to instantiate a live shot object.
- Object type determines if an object needs Sat Ops review or not.
- Window (start time, end time) should be required but the person creating the object may not know that information. Thus, it's possible to include a checkbox to defer and send notifications to remind a TPM who takes over to put that information in.



Preset Paths and Fields for Recurring Objects

- Paths and metadata fields can pre-populate for recurring objects and users can go in and make modifications as needed.
- Ability to save an object's configuration as new preset.



Expiration and Renewal System

- Objects do not get deleted from the system. There should be a specific date, time, and time zone put in to determine when objects should expire from the system and no longer appear in search results.
- Objects that have been added to a user's canvas before expiring can be renewed.
 - When users renew an object, they need to select a brand new expiration time for the object.



Guest Tracker Integration

- When someone gets booked through Guest Tracker, it should auto-instantiate an object for them in LSM.



Object Indicators

- Needs review indicator icon: New from Guest Tracker, Ready for Sat Ops review
- Users need to know if a live shot is for a daytime, weekend, or primetime slot.
- Users need to know if a live shot is local or remote.

Part 2: Sat Ops & Control Room

After a live shot has been created and reviewed by a tech manager, they send it to Sat Ops to review and create a technical plan for it.

Sat Ops is a department that services all of the control rooms, all of the shows, and all at the same time. They handle things on the global level.

As mentioned before, this current process is very manual and communication-driven. The TPM/TPCs will send the excel sheet to Sat Ops and Sat Ops will send it back to them in the control room once they're done.

***Round 2:
Sat Ops &
Control Room***

Requirements

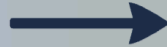


Workflow Part 2: Sat Ops & Control Room

Sat Ops sees the new object sent for review and assigns all the global attributes, routing information of that object.

They assign an attribute as either send, receive, or phone and specify the connecting output or input.

Sometimes they may edit tech notes if circumstances change (i.e., if a studio was recalled).



After Sat Ops is done verifying the technical aspects of an object and all the lines have been booked out, they mark it as reviewed.



Folks in the control room see an indicator that the object has been reviewed by Sat Ops and can now interact with the object.

If the object was assigned local when instantiated, control rooms could interact with the object without Sat Ops review.

TDs and TPMs can set final local routing information and organize control room resources to execute what the director wants.



After a shot has been used, it will eventually reach the expiration time and no longer appear in search results.



Requirements



Unique view for Sat Ops

- View and edit global routing information
- Ability to see objects in descending order by hit time
- Checklist to mark off each line they've addressed



User permissions

- TPCs, TPMs, and Sat Ops have the ability to modify technical information



ID system for objects

- All live shots should have a unique identifier



Search for objects that have not yet expired



Canvas with hit times

- TPMs and TPCs should be able to add objects they want to their canvas. Their canvas serves as a list of all objects are working with.



Expiration and renewal system

- TPMs and TPCs can put in a specific date, time, and time zone to determine when objects should expire from the system and no longer appear in search results.
- Objects that have been added to a canvas before expiring can be renewed. TPMs/TPCs need to select a brand new expiration time for the object if they renew it.



PDF summary of canvas

- Ability to generate a printer-friendly PDF of a user's canvas would be useful in the situation where a canvas needs to be printed or distributed offline by TPMs/TPCs.



Object indicators

- Color statuses of object: Not available to take/grab, Available to take/grab, Grabbed, Taken, Not available to grab (already grabbed by another control room), Pending release (an error indicator when a grab attempt has been made to an already-grabbed object), Release request (A control room needs an indicator if another room is attempting to grab an object they have already grabbed), Expired
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- Users need to know if a live shot is for a daytime, weekend, or primetime slot.
- Users need to know if a live shot is local or remote
- If grabbed, an indicator of who has ownership



Notification system and live updates

- TPMs/TPCs need to be notified if:
 - Another control room is attempting to grab an object your room has already grabbed – and which room that is
 - When a shot has been released from a control room
- TPMs/TPCs also have the option to release control of an object if another room is attempting to grab control of an object your room has control of.
- If TPMs/TPCs don't know the window to book fiber lines, they can click a UI to defer and a *notification* can remind them or another user to put in that information.
- Sat Ops should see a *live update* if another parameter has suddenly been added to a live shot due to a need that popped up (i.e., we didn't anticipate the guest needing a prompter) so they can address it.

Design Charrettes

Round 1	Round 2	Round 3
Instantiating a Live Shot	Sat Ops & Control Room	Complete Workflow
5 mins Sketch out your ideas and the present them individually.	5 mins Sketch out your ideas and the present them individually.	15 mins Pair up with a buddy to sketch and present again to iterate on the strongest ideas.

**Round 1:
Instantiating
a Live Shot**

**Round 2:
Sat Ops &
Control Room**

**Round 3:
Complete
Workflow**

Workflow Round 1: Instantiating a Live Shot

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Part 1 Requirements



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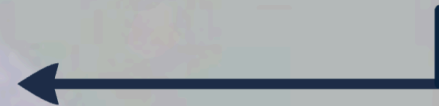
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Part 2 Requirements



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ID system for objects

- All live shots should have a unique identifier



Search for objects that have not yet expired



Canvas with hit times

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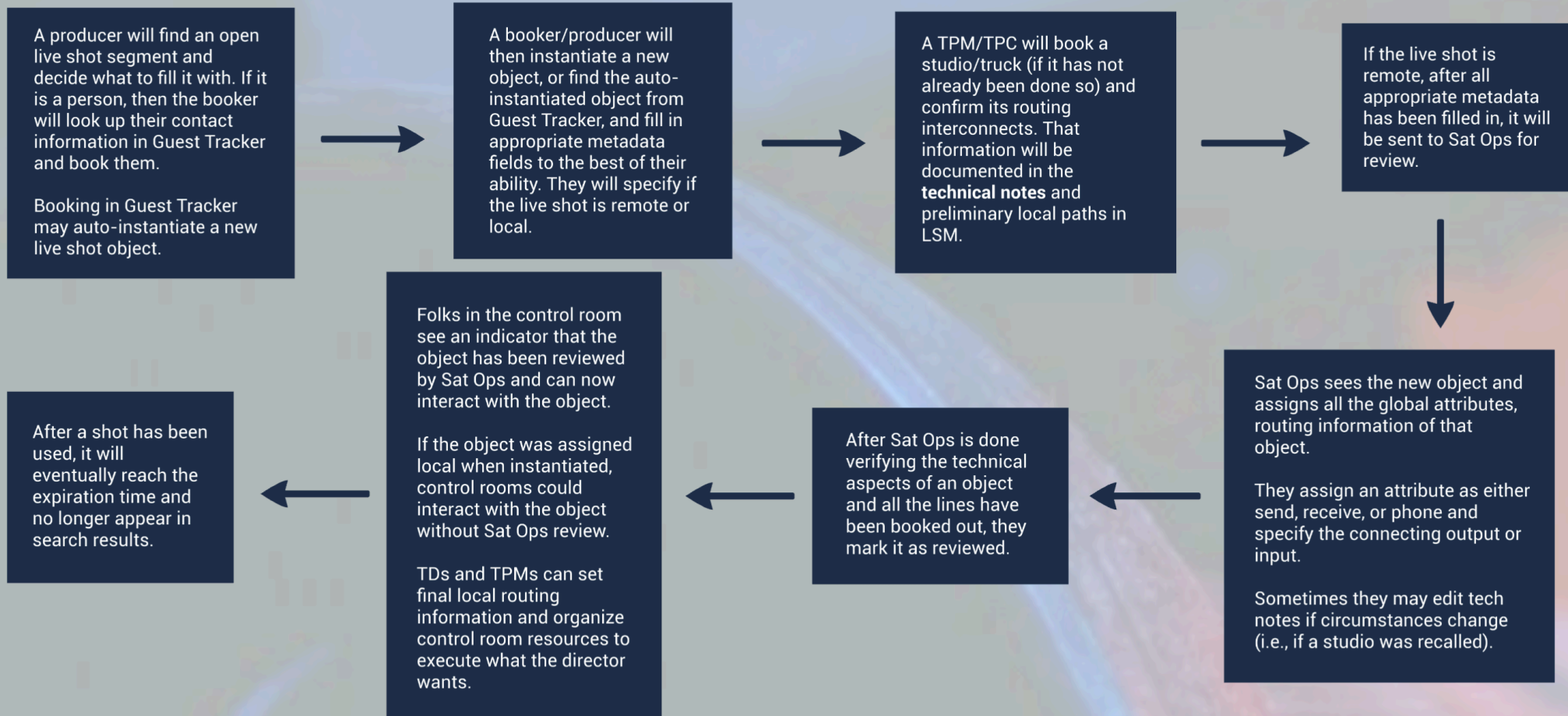
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Round 3: Complete Workflow



All Requirements



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Preset Paths and Fields for Recurring Objects (i.e., Rachel Maddow show)

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