SMPTe Atlanta Section Meeting

Kari Grubin
Project Director
April 11, 2022
THE VIRTUAL PRODUCTION INITIATIVE
A Rapid Industry Solution, Facilitated by SMPTE

SMPTE’s mission has always been to bring together members of the Media and Entertainment Industry, providing a forum to discuss and develop the technology and standards that will enable SMPTE’s content creation and delivery community to meet industry's needs in a rapid manner. In any case, it’s being responsible for the future of our industry and what they envision for us and our industry. Without a doubt, the pace of change is rapid. Based on the recent, much-needed roundtable discussions on Virtual Production, the first RIG project will be focused on the complexities of on-set Virtual Production.

VIRTUAL PRODUCTION
Physical and digital worlds interact in real-time as they are composed and captured on set, by combining traditional production tools with innovative digital workflows. The Virtual Production program will focus on bringing solutions from emerging technology companies, traditional production users, manufacturers, educational institutions and professional organizations. We need the best minds in the industry to assess the challenges, establish our goals and deliver a fast-track response.

The Complex Challenges
Our in-depth discussions with groups and individuals in all aspects of the on-set Virtual Production pipeline have uncovered a number of hurdles preventing many from deploying these new content creation solutions.

• System Integration
• The quality of systems are proprietary, and no standards are in place to integrate them.
• The first and foremost priorities.

• Education and Training Gap
There is a large lack of education for both media and entertainment professionals, and game engine technicians, as well as cross-training between the two disciplines.
Business leaders may also lack an understanding of the costs, benefits and resources involved.

The Goals
• Train at all Levels
Building on SMPTE’s long expertise in technical education and existing offerings for product development, and delivering on future directions for professional development, technical training, and system-level training needs.

OVER 30 INTERVIEWS
WORLDWIDE PARTICIPATION
SCRIPTED, BROADCAST and EDUCATION
What the Industry Needs ....

**Training and Education**
- Leverage existing education offerings from Industry Partners
- Work with Advisory Group to develop unique offerings for General Education, Professional Development and Technical Training
- **LACK OF PERSONNEL AND TECHNICAL RESOURCES**!

**To Enable Systems Interoperability**
- Technology review model is different – faster and more flexible – than due process model
- Tech work will be made open to industry
RAPID INDUSTRY SOLUTIONS

- Provide a neutral, non-commercial platform to facilitate rapid industry solutions
- Enlist *Industry Advisory Group* to guide the work to ensure **SMPTE IS ACCOUNTABLE** to the needs of the industry
- SMPTE will curate these new deliverables, including development of education offerings and enabling systems interoperability (i.e., standards)
- New flexible financial model to evaluate sustainability via project sponsorship, with proponents funding the initiative
OVER 58 ADVISORY GROUP MEMBERS INCLUDING COMPANIES AND INDIVIDUAL CONTRIBUTORS!
Overview of Progress

- Advisory Group
  - Monthly Meetings since August
  - Surveyed for top issues of concern
- Workstreams defining goals and deliverables
  - Education
  - Interoperability
  - Outreach
Interoperability Workstream Efforts

Top Interoperable Subjects identified by SMPTE RIS volunteers:

- **OnSet** - Entire Workflow Process and Interoperability Challenges
- **Camera** - Source of Truth (Multiple Sources) plus Hero Metadata
- **Ecosystem** - Workflow Connectivity and Data/Asset Management
- **File Formats** - Various Data and Metadata sources and Transport Containers
- **Color Science** - Existing Standards and processes that need to be incorporated
Timeline of initiatives – Focus Interoperability workstream

<table>
<thead>
<tr>
<th>Activity</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On Set Workflow -Interoperability Challenges</strong></td>
<td></td>
</tr>
<tr>
<td>- CAMERA Sources &amp; Metadata Sub Cmte.</td>
<td></td>
</tr>
<tr>
<td>- On-Set Sub Committee formed</td>
<td></td>
</tr>
<tr>
<td>- File formats and Scene Data – USD/MXF</td>
<td></td>
</tr>
<tr>
<td>- Research RDD docs and Camera Containers</td>
<td></td>
</tr>
<tr>
<td>- Simplified IO between content created for PreViz/Capture On-Set and exchange with Editorial, VFX and Post</td>
<td></td>
</tr>
<tr>
<td><strong>Define and Recommend Best Practices</strong></td>
<td></td>
</tr>
<tr>
<td>- List and Define Quick Start Guide for VP</td>
<td></td>
</tr>
<tr>
<td>- LED Wall and OnSet Monitor Calibration</td>
<td></td>
</tr>
<tr>
<td>- Work closely with Education Workstream in development of Quick start guide for VP</td>
<td></td>
</tr>
<tr>
<td><strong>Technical Solutions</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Led Walls</strong></td>
<td></td>
</tr>
<tr>
<td>- SMPTE Virtual Production Color Bars</td>
<td></td>
</tr>
<tr>
<td>- Camera Framing Charts</td>
<td></td>
</tr>
<tr>
<td><strong>Physical Connections</strong></td>
<td></td>
</tr>
<tr>
<td>- Move to IP-based solution</td>
<td></td>
</tr>
<tr>
<td>- Potentially expand upon ST 2110</td>
<td></td>
</tr>
<tr>
<td>- Connectivity pipeline for cameras and toolsets/cloud</td>
<td></td>
</tr>
</tbody>
</table>
Outreach Workstream

**FEBRUARY**

- SMPTE Session: Exploring the Rules of the Road for Virtual Production
  - Wednesday, 02 February 2022
  - 10:00 - 10:45 | Europe/Amsterdam
  - On Demand Only

**MARCH/APRIL**

- Connecticut Subsection/ Women In Media
  - April 26

_Looking Forward – SIGGRAPH, IBC, SMPTE MTS_
# Timeline of initiatives – Focus Education workstream

<table>
<thead>
<tr>
<th>Activity</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew</td>
<td></td>
</tr>
<tr>
<td>Curate current publicly accessible OSVP educational offerings</td>
<td>Q1</td>
</tr>
<tr>
<td>Business</td>
<td></td>
</tr>
<tr>
<td>Industry organization co-programming (in partnership with Outreach and SMPTE Education department)</td>
<td>Q2</td>
</tr>
<tr>
<td>Update/refinement of OSVP Workflow wallchart to create a new INTERACTIVE PLATFORM</td>
<td>Q3</td>
</tr>
<tr>
<td>Students</td>
<td></td>
</tr>
<tr>
<td>Develop “missing” educational content</td>
<td>Q4</td>
</tr>
<tr>
<td>Inexpensive stages for students – Resource Grant Program</td>
<td>Q4</td>
</tr>
</tbody>
</table>
First Education Deliverable
October 2021

- Wall chart to be published in October 2021 issue of SMPTE MIJ
- Thanks to MovieLabs and ETC!
- Plan is to make this a virtual wall-chart with real moving parts

Companion overview Video
https://youtu.be/_bG4LLVQrfw
Collaboration between RIS & Standards Community

• RIS brings together a unique mix of subject matter experts, users and manufacturers
• Opportunity is for RIS to identify and discuss pain points around interoperability
• RIS is well-suited to identify, document and prioritize use-cases and associated requirements
• SC is well-suited to create technical specifications based on identified requirements

Agreeing on requirements is the difficult/time consuming part

Slide courtesy of Florian Schleich, VP of Standards
Want to know more about RIS?

Project Management Contact:
Kari Grubin
Project Director
kari.grubin@gmail.com

Visit the SMPTE Website and RIS Landing Page:

Other Contacts – SMPTE Main Office or RIS Project Management group email
RIS-OSVP-PM@smpte.org
