

CLUE

draft-presta-clue-data-model-schema-02

Outline

- Overview of the draft
- Snapshots from the current schema

Overview

- The draft provides an XML Schema definition of information needed by the CLUE application as described in
 - draft-ietf-clue-framework-07
 - draft-romanow-clue-data-model-01
- In its current state, the proposed data model describes the available media captures of a telepresence room

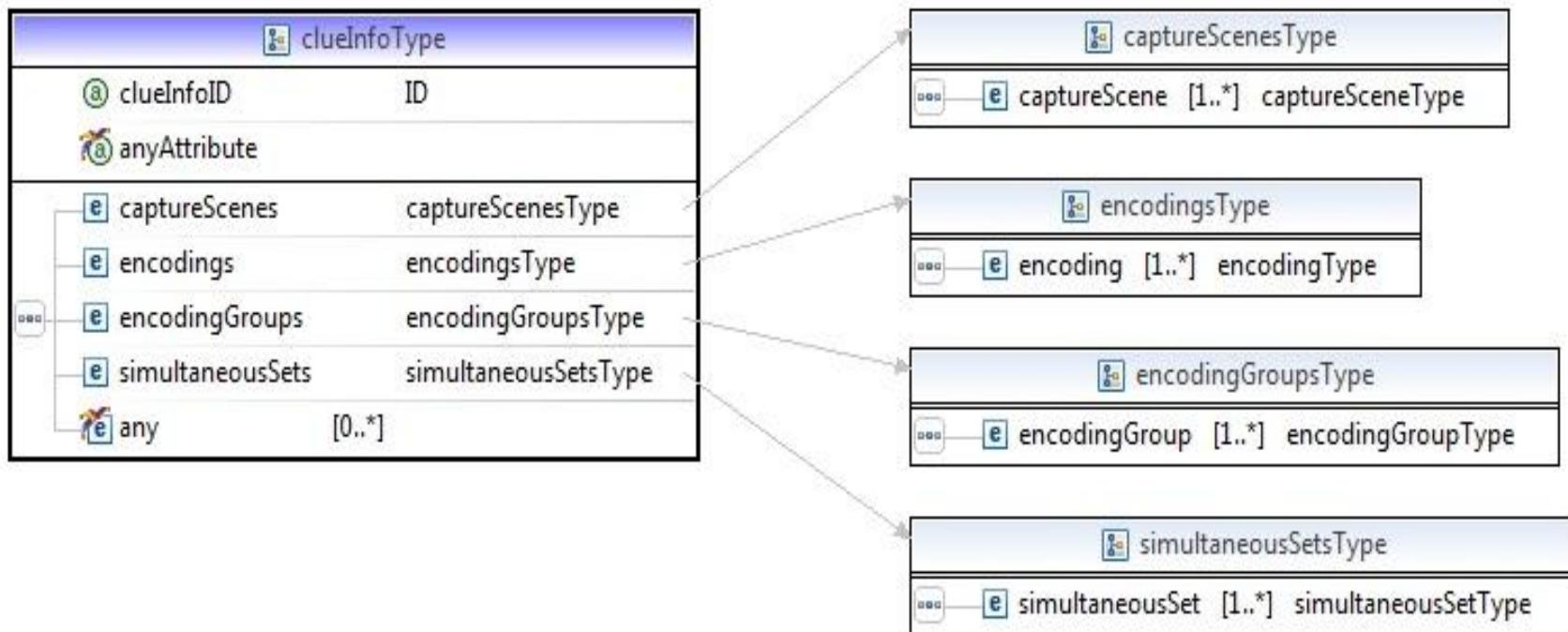
Overview

- It does not directly reflect the content of CLUE protocol messages...
 - ...Though it resembles someway a preliminary form of advertisement
- CLUE messages will use the data model information

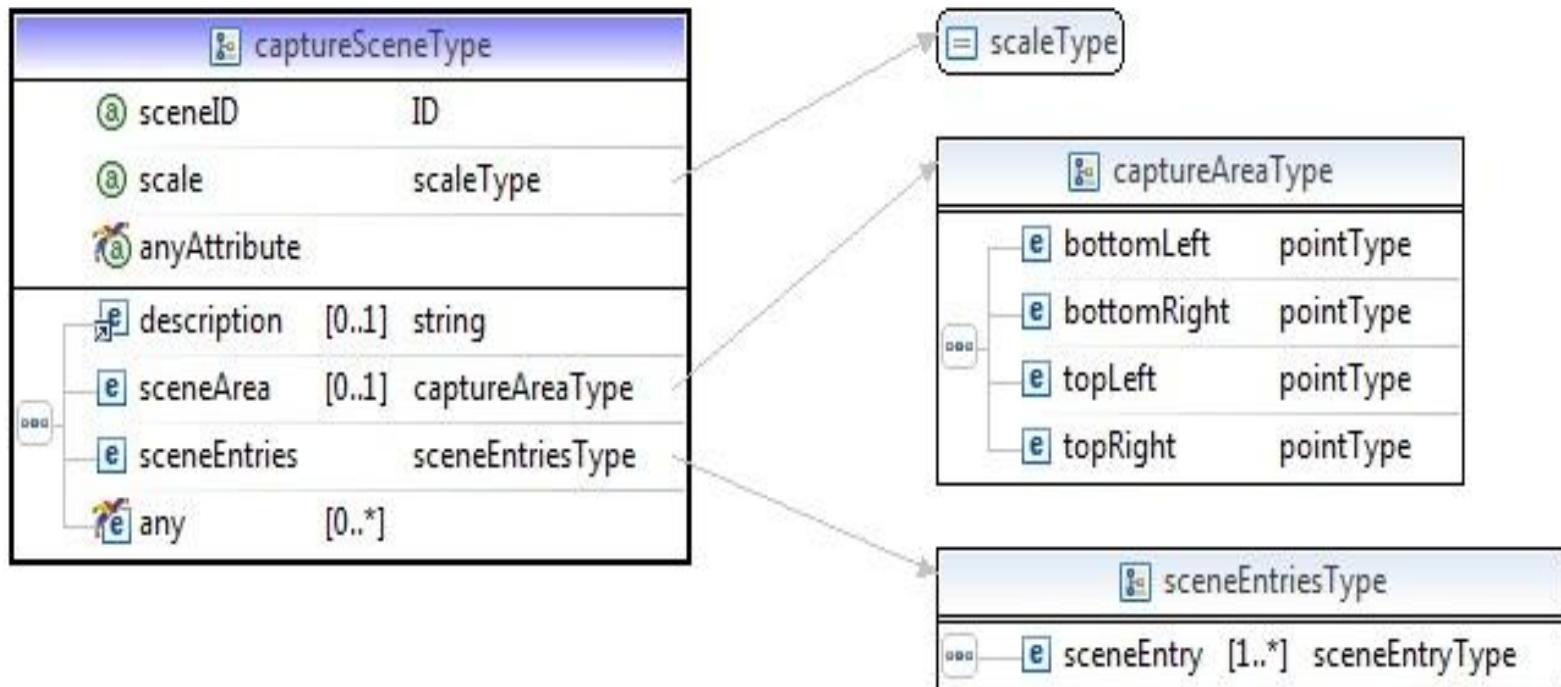
Overview

- Current version: -02
- A few updates derive from discussions on the mailing list about spatial information description
- The following are snapshots from the most up-to-date data model (slightly different from the -01 version)

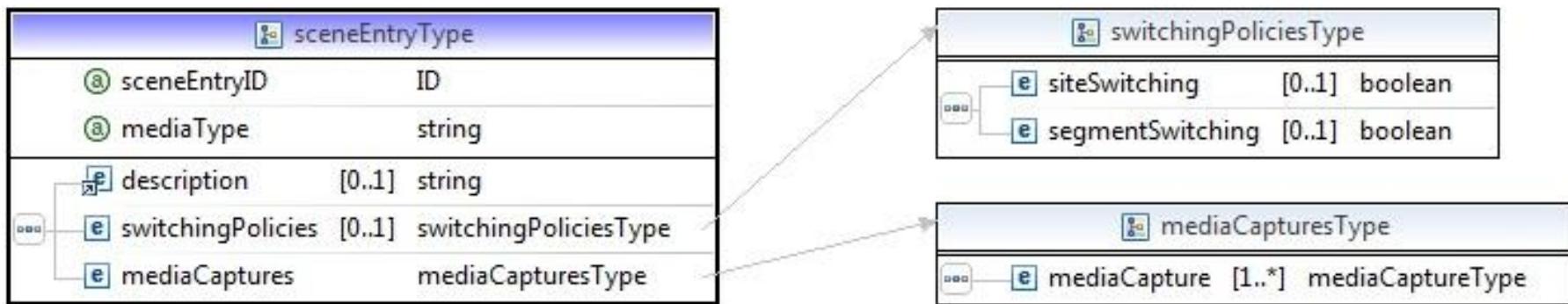
Clue info type -02



Capture scene type



Scene entry type

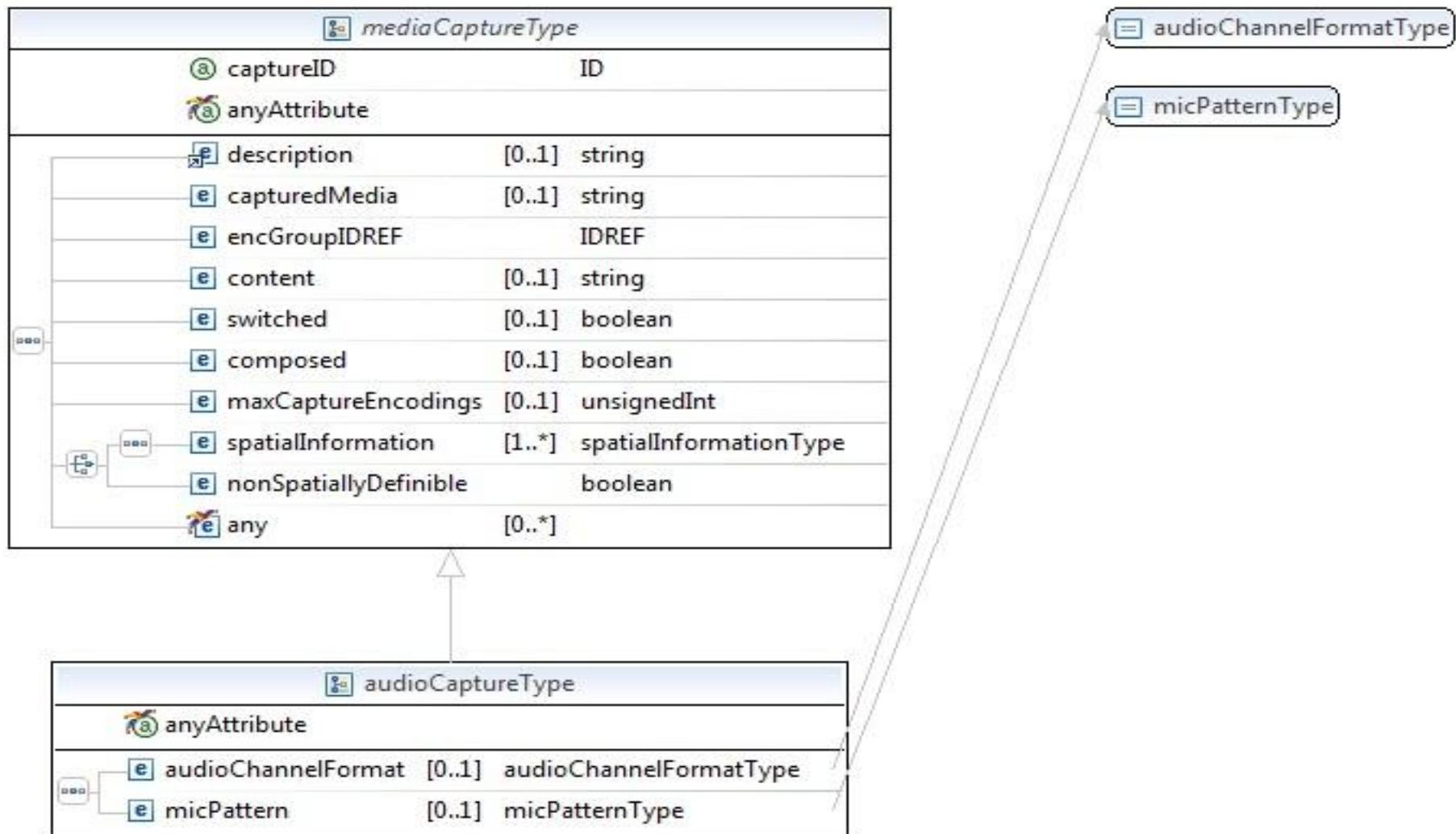


Media capture type & Spatial information type

mediaCaptureType	
⑧ captureID	ID
⑧ anyAttribute	
⑨ description	[0..1] string
⑨ capturedMedia	[0..1] string
⑨ encGroupIDREF	IDREF
⑨ content	[0..1] string
⑨ switched	[0..1] boolean
⑨ composed	[0..1] boolean
⑨ maxCaptureEncodings	[0..1] unsignedInt
⑨ spatialInformation	[1..*] spatialInformationType
⑨ nonSpatiallyDefinable	boolean
⑨ any	[0..*]

spatialInformationType	
⑧ anyAttribute	
⑨ capturePoint	capturePointType
⑨ captureArea	[0..1] captureAreaType
⑨ any	[0..*]

The audio capture type example



A simple video capture

- No-switching video, fixed camera
- <spatialInformation> provides
 - Capture point
 - Capture axis point
 - Capture area

A simple video capture example

```
<mediaCapture xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
              xsi:type="videoCaptureType" captureID="VC0">
    <description>left camera video</description>
    <capturedMedia>video</capturedMedia>
    <encGroupIDREF>EG0</encGroupIDREF>
    <content>main</content>
    <spatialInformation>
        <capturePoint> ...
            <captureAxisPoint> ....
        </capturePoint>
        <captureArea>
            <bottomLeft> ....
            <bottomRight>
            <topLeft> ....
            <topRight> ....
        </captureArea>
    </spatialInformation>
</mediaCapture>
```

A more complex capture

- Loudest panel stream with PiPs
- 3 cameras
 - the central one capturing the loudest panel
 - The others capturing the rest of the room
- 3 possible spatial representations:
 - 1) the biggest captured space
 - 2) captured space of each components
 - 3) no spatial information provided

PiP video example - #1

```
<mediaCapture xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
              xsi:type="videoCaptureType" captureID="VC5">
    <description>loudest panel with PiPs</description>
    <capturedMedia>video</capturedMedia>
    <encGroupIDREF>EG0</encGroupIDREF>
    <content>main</content>
    <composed>true</composed>
    <spatialInformation>
        <capturePoint>...
            <captureAxisPoint> ...
            </capturePoint>
            <captureArea> ...
            </captureArea>
        </spatialInformation>
    </mediaCapture>
```



Information about the max captured space

PiP video example - #2

```
<mediaCapture xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
             xsi:type="videoCaptureType" captureID="VC5">  
  <description>loudest panel with PiPs</description>  
  <capturedMedia>video</capturedMedia>  
  <encGroupIDREF>EG0</encGroupIDREF>  
  <content>main</content>  
  <composed>true</composed>  
  <spatialInformation> ... <span style="float: right; margin-left: 20px;">→</span>  
  <spatialInformation> ... <span style="float: right; margin-left: 20px;">→</span>  
  <spatialInformation> ... <span style="float: right; margin-left: 20px;">→</span>  
</mediaCapture>
```

Spatial information
of each component
stream

PiP video example - #3

```
<mediaCapture xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
             xsi:type="videoCaptureType" captureID="VC5">  
  <description>loudest panel with PiPs</description>  
  <capturedMedia>video</capturedMedia>  
  <encGroupIDREF>EG0</encGroupIDREF>  
  <content>main</content>  
  <composed>true</composed>  
  <noSpatiallyDefinible>true</noSpatiallyDefinible>  
</mediaCapture>
```