**Interface Components for Monitoring Security Video**

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**Problem**
- Large numbers of surveillance cameras tax human attention  
- Support security personnel in:  
  - monitoring real-time video feeds  
  - analyzing recorded video

**Challenge**
- Highlight salient aspects in localized activity

**Approach**
- Create compact representation of localized activity as static images  
  - Highlight **area of activity** over a short period of time  
  - Overlay **track of moving object**  
  - **Alpha-blend** pixels of **foreground** activity with background

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**Visualizing Localized Activity**

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**Examining Multiple Real-Time or Recorded Video Feeds**

**Challenge**
- Familiarize the user with the relevant aspects of an activity

**Approach**
- Video player that enable users to monitor real-time or recorded videos  
  - Video displays at different resolutions and frame rates  
  - Map indicating camera locations  
  - Multi-scale timeline for navigating video feeds  
  - Two playback modes: automatic walkthroughs and activity-based camera selection

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**Presenting Activity Summary**

**Challenge**
- Summary of activity over time and across multiple cameras

**Approach**
- Determine periods of interesting activity  
- Combine an activity from related cameras  
- Assign importance to periods of activity  
- Present **event-centric** view as storyboards and **time-centric** view as timelines

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**UI Support Tools**

- Activity summary in form of storyboards and timelines  
- Activity cues through highlights, time-lapsed images, and overlays  
- Activity familiarization using multi-stream video player

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