GAME CHANGERS
Slot Performance Visualized

2017 Esri International GIS User Conference
Innovative Solutions for Smart Indigenous Communities
Tuesday, July 11, 2017  10:15am-11:30am  Room 28D
SPEAKERS

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DREAMS

Real-time slot floor visualizations
  - Game performance
  - Tech issues

Geographic maps
  - Casino patrons
  - Hotel guests

Game preference visualization
  - VIP events, groups, and promotions
  - Casino patrons and hotel guests
STRATEGY

• Utilize existing applications and resources
• Update and expand casino floor maps
• Self-service reporting
• Mobile
• Real-time data reporting with visualizations
• Consistency amongst properties with reporting formats & metrics
Considerations prior to integration:

- Data format for Cognos
- No “real world” coordinates
- Custom attribute information to be built and populated by CAD analyst
- Scale
GEOREFERENCING THE CAD
CREATING BASEMAPS FROM CAD
CREATING FEATURE CLASSES FROM CAD
PUBLISHING FOR USE IN REPORTING
OTHER GIS CONSIDERATIONS

• QA / Quality Control

• Periodic changes to gaming floor layouts

• Security
Periodic changes of gaming floor layouts became more readily than anticipated.

Built a Cognos data model to run the whole process – reducing time to update from a half day to two minutes.

Individual casinos have their own model.
• Creates the floorplan - Imports the polyline layer from the dwg file into a feature class named xCasino_Floorplan stored in the xCasino.gdb

• Creates the feature class x_Seats - Imports the polygon layer from the dwg file that meets the requirements layer = ‘Slot Machines – GIS’
  • Field SEAT_ID is added to the xCasino_Seats feature class and populated with the COGNOS_ID field (This step is necessary for the COGNOS reports to be ran correctly)

• Copies the xCasino_Seats feature class into the xCasino_Banks feature class
  • Bank_ID field is added and is calculated by extracting out the left 4 characters of the xCasino_Seats SEAT_ID field. The xCasino_Banks feature class is then dissolved by the BANK_ID field (This step removes all the seat information)

• Copies the xCasino_Banks feature class into the xCasino_Zones feature class
  • Zone_ID field is added and is calculated by extracting out the left 2 characters of the xCasino_Banks BANK_ID field. The xCasino_Zones feature class is then dissolved by the ZONE_ID field (This step removes all the zone information)
BUSINESS INTELLIGENCE

- Custom reporting for gaming and hotel facilities
- Dashboards and reporting
  - Management
  - Audit and Compliance
  - Marketing / Patron Analysis
  - Gaming Performance
  - Operations
- Geospatial analysis
- Mobile BI applications
GIS AND BI INTEGRATION

- Create 3 new ESRI location types based on new attributes in CAD:
  - Seat_ID
  - Bank_ID
  - Zone_ID
- Incorporate new attributes into Cognos reports to utilize floor maps
- Enhance existing BI reports by adding geographic and gaming floor visualization
- Custom metrics for each map layer
- Interactivity between ESRI map and Cognos report and vice-versa
- Add buffer areas in maps with interactive report update
- Pop-up information boxes
- Drill-thru to detail reports
Enhance existing gaming performance reports by adding interactive gaming floor ‘heat maps’ for over ten metrics by Seat, Bank, and Zone

Add geographic visualizations to casino patron and hotel guest data

Perform visual game preference analysis on casino patrons for VIP events, groups, and promotions

Provide up-to-date visual reporting of slot machine issues to techs and vendors
GAME PERFORMANCE

- General game info
- Key metrics by seat, bank, and zone
- Pop-up information on selection
- Touch selection with interactive report updates
- Buffer zones
- Report filtering and map updates
Esri UC Casino
Game Performance
Jan 1, 2017 - Mar 31, 2017
TECH ISSUES

• Real-time data and visualization of:
  • Card Reader Errors
  • Validator Malfunctions
  • Communication Errors

• Get the games back in play faster!
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