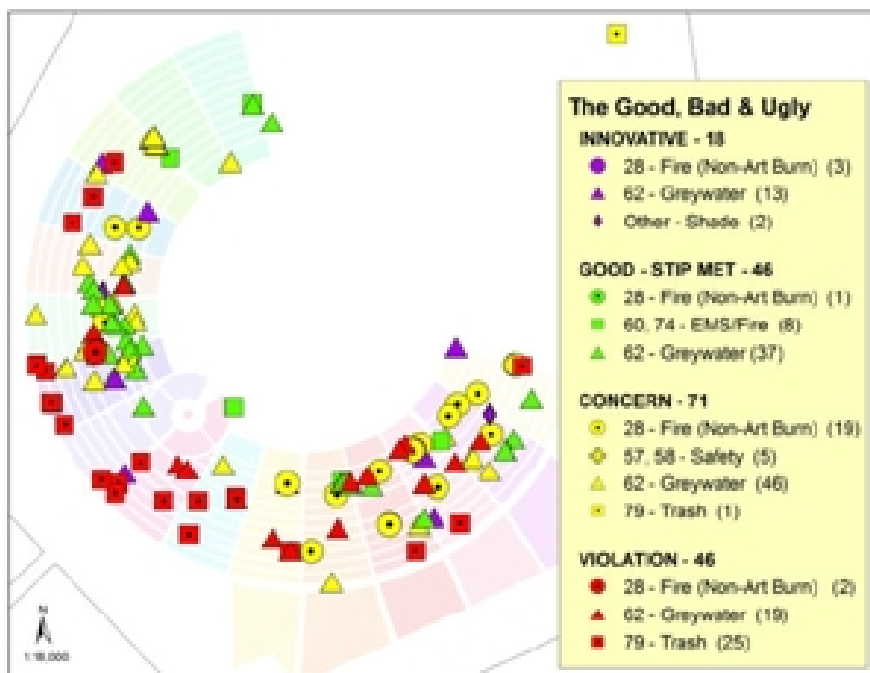


This excerpt from the technical note in the Burning Man Monitoring Report demonstrates how ArcGIS was used in conjunction with digital data from Ricoh GPS-cameras. In the field, the cameras were used to capture a GPS location (as a point, line or area) and record attributes about that location. Geospatial Experts GPS-Photo Link was used to export that information to an the ESRI shapefile format.

The ESRI shapefile format was key to seamlessly migrate data from the GPS cameras and Trimble devices into ArcGIS for data management and analysis. ArcGIS was used for spatial analysis, data management and mapmaking. This allowed the team to monitor the event in real-time and create a long term record for the future planning.

1.1 Display locations on city grid

The GPS camera data yielded a single shapefile (GIS layer) of point locations at which each photograph was taken. Locations captured by the Trimble GPS units, yielded three distinct point, line and area GIS layers. Team-collected data was combined with the Black Rock City infrastructure layer in ArcGIS. GPS-captured locations of photos and areas of concern could then be displayed in terms of the BRC grid.



2. Query locations based on entered information

Data from the GPS-cameras and Trimble units contains not only location but also the attributes that were entered upon capture. These 5 attributes entered serve as the basis for symbology, queries and spatial analysis in ArcGIS.

ID#	Name	GEOMETRY	STATUS	TIMEZONE	Date
BlackRockMonitoring001	001 0000-01-01	Point	Active	EST	1/1/2010 12:00:00
BlackRockMonitoring002	002 0000-01-01	Point	Active	EST	1/1/2010 12:00:00
BlackRockMonitoring003	003 0000-01-01	Point	Active	EST	1/1/2010 12:00:00
BlackRockMonitoring004	004 0000-01-01	Point	Active	EST	1/1/2010 12:00:00
BlackRockMonitoring005	005 0000-01-01	Point	Active	EST	1/1/2010 12:00:00
BlackRockMonitoring006	006 0000-01-01	Point	Active	EST	1/1/2010 12:00:00
BlackRockMonitoring007	007 0000-01-01	Point	Active	EST	1/1/2010 12:00:00
BlackRockMonitoring008	008 0000-01-01	Point	Active	EST	1/1/2010 12:00:00
BlackRockMonitoring009	009 0000-01-01	Point	Active	EST	1/1/2010 12:00:00
BlackRockMonitoring010	010 0000-01-01	Point	Active	EST	1/1/2010 12:00:00

3. Perform spatial analysis

ArcGIS was used to summarize documented incidences by stipulation and status and to determine fence lengths, burn platform areas and other city infrastructure calculations.

4. Generate random locations for trash transects

Hawth's tools was in ArcGIS, used to generate random points through 5 main zones in Black Rock City (Art, Residential, Walk-in Camping, Airport and Other) as shown on the map. During the event, the Monitoring Team photographed the appearance at these locations on the chance that if an excessive amount of trash was found during later inspections, a record exists of that area's appearance during the event.

Click here for an [overview of the ArcGIS software suite](#) .