Building the Data Pipeline: Managing Drone Layers

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Building an imagery pipeline
**Drone Data Workflow**

*Providing an end-to-end workflow for drone imagery*

1. **Plan & Capture**

   - Flight Apps

![Diagram of drones and flight apps](Image)
Optimizing drone data collection - photos!
Micro SDs

External storage

Direct through LTE
**Drone Data Workflow**

*Providing an end-to-end workflow for drone imagery*

1. Plan & Capture

   Flight Apps +
Drone Data Workflow
Providing an end-to-end workflow for drone imagery

1 Plan & Capture
   Flight Apps

2 Process, Manage, & Analyze
Locally
Locally Cloud Processing
Locally | Cloud Processing | Real time
2-Dimensional

- Orthomosaic
- Reflectance (Index)

3-Dimensional

- Infrared
- Prescription zones
<table>
<thead>
<tr>
<th>2-Dimensional</th>
<th>3-Dimensional</th>
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<td>Orthomosaic</td>
<td>Textured mesh</td>
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<td>Reflectance (Index)</td>
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<td>Prescription zones</td>
<td>DEM/DTM</td>
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<td>Contours</td>
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</tbody>
</table>
2-Dimensional

Orthomosaic

Infrared

Reflectance (Index)

Prescription zones

GeoTiff (.tif), .kml, .shp

3-Dimensional

Point cloud

Textured mesh

DEM/DTM

Contours

GeoTiff (.tif), las, .laz, .ply, .obj, xyz, .shp, .dxf, .pdf
From photos to lots of output files...over time!
Drone Data Workflow
Providing an end-to-end workflow for drone imagery

1 Plan & Capture

2 Process, Manage, & Analyze
Drone Data Workflow
Providing an end-to-end workflow for drone imagery

1 Plan & Capture

2 Process, Manage, & Analyze

3 Disseminate & Collaborate
Locally
Locally SaaS provider
ArcGIS Image Architecture

Stream Imagery

Upload Rasters

Image Hosting & Storage

Image & Raster Analytics

ArcGIS Online

ArcGIS Image for ArcGIS Online
Drone Data Workflow

Providing an end-to-end workflow for drone imagery

1. Plan & Capture
   - Site Scan Flight
   - iOS App

2. Process, Manage, & Analyze
   - Site Scan Manager Web-App

3. Disseminate & Collaborate
   - esri ArcGIS®
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