

Esri Production Mapping: Generating High Quality Product-On-Demand Maps Over the Web

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Printing in Web Applications with ArcGIS Enterprise

3 Tiered Approach

- Simple printing: OOTB GP Service
 - Small format
 - Synchronous
 - Token based secure services
- Custom configuration: GP Service
 - Ability to supply your own templates
 - Asynchronous if desired
 - Handle HTTP secure services
 - Large format
- Advanced cases: Python
 - Supported via ArcPy.Mapping
 - Map/Layer addition, replacement, etc.





Advanced printing for web and layout based maps

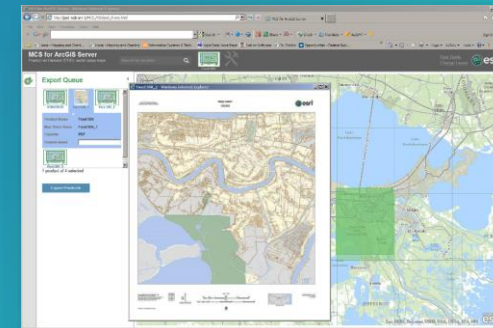
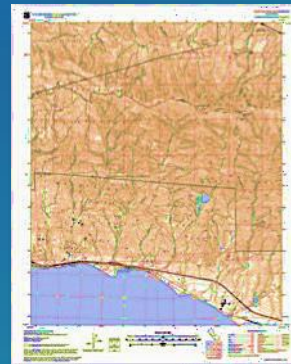
Extending the 3rd tier of the ArcGIS Web Printing & Export

Sophisticated & compelling maps that meet exacting industry standards

Adds “information products” to web GIS platform compliments web maps

“Real time” vector cartography and high-quality layouts

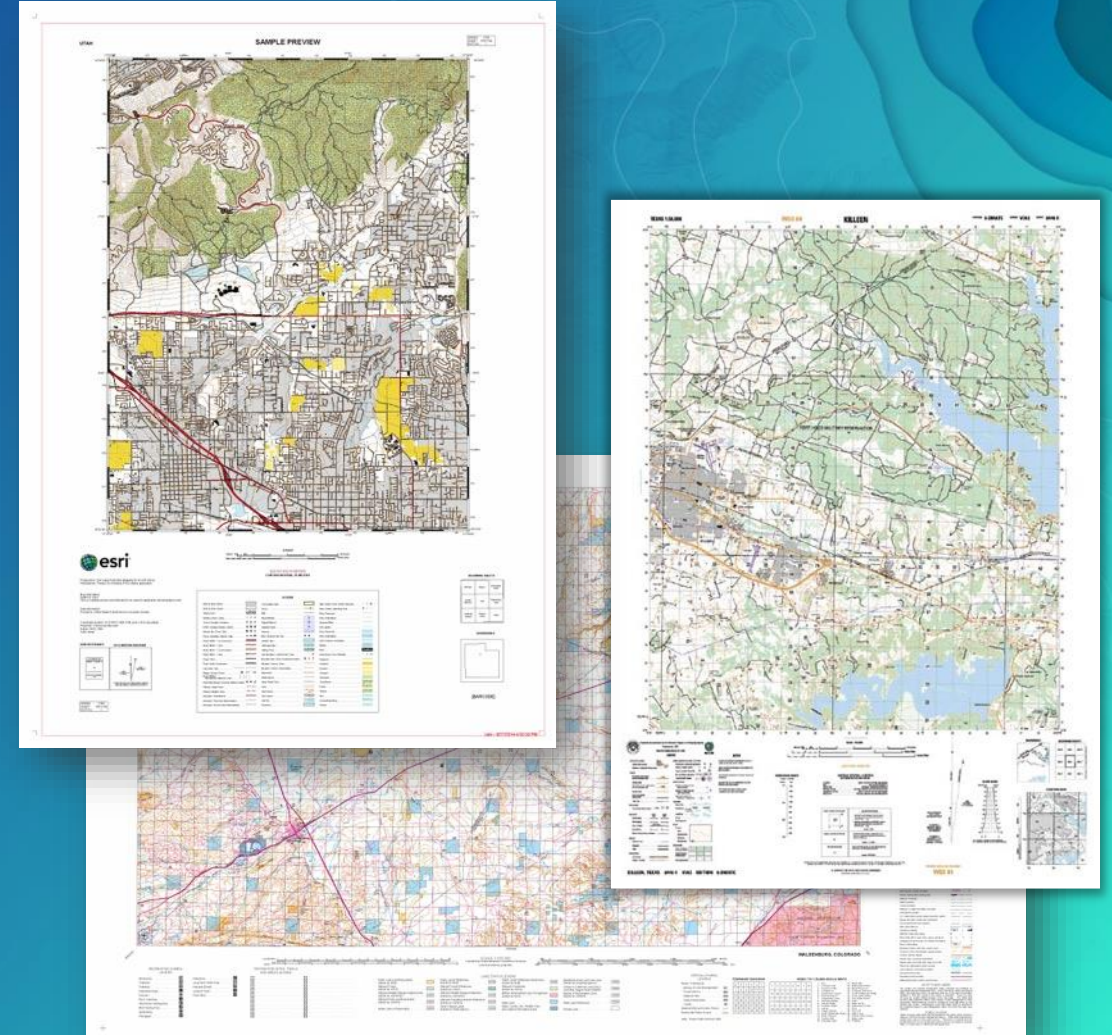
Behavior-based mapping with a online self-service experience



What is Product on Demand (POD)?

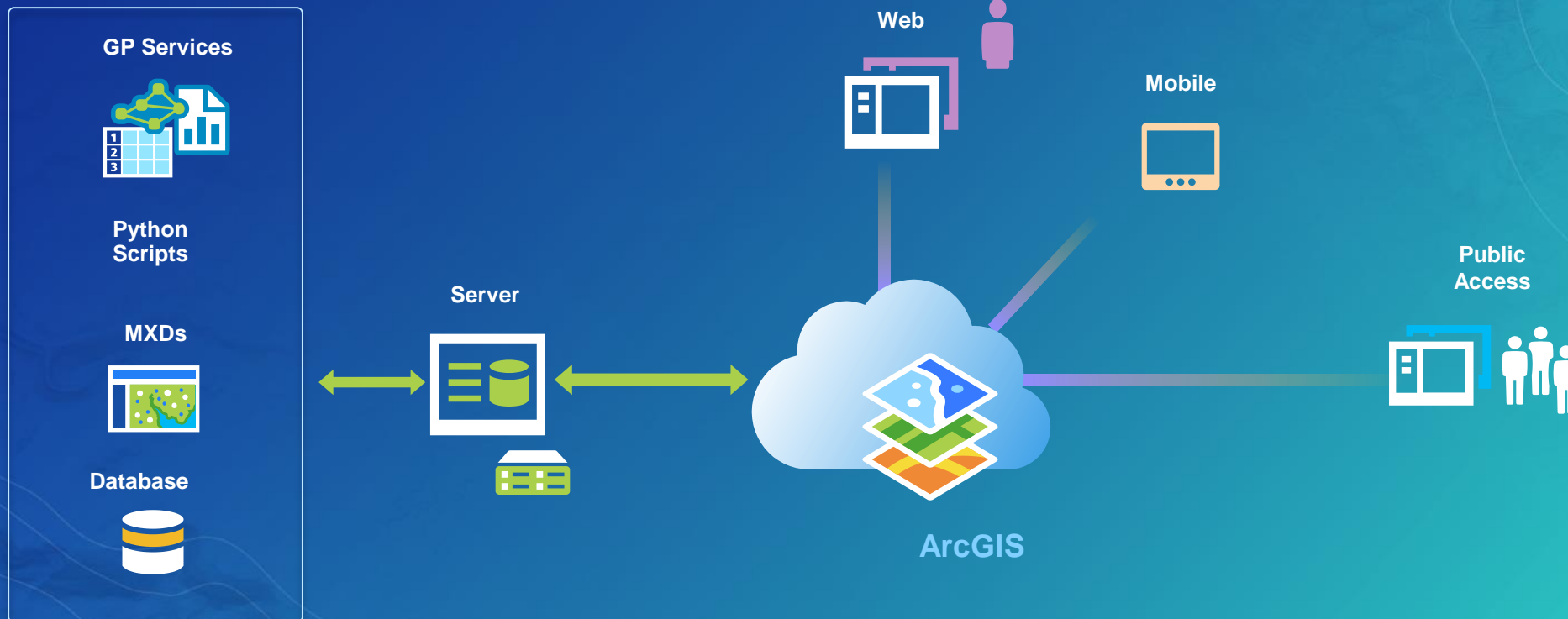
Map Production over the Web

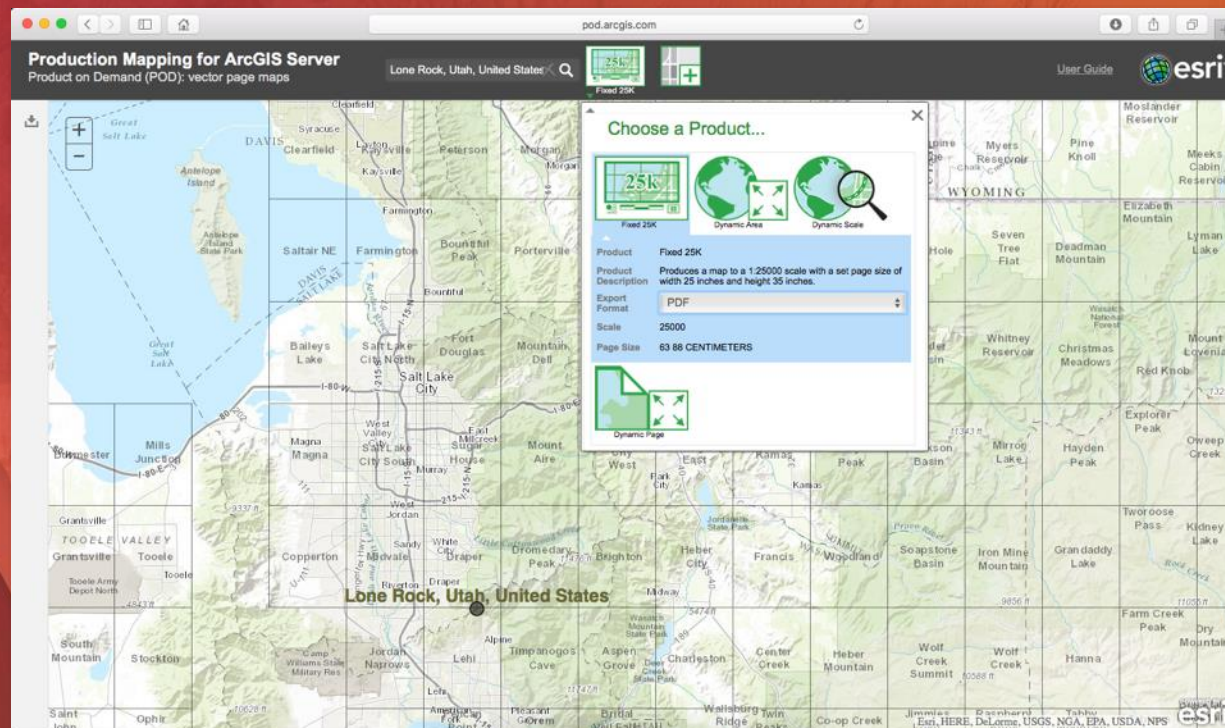
- High-end cartography over the web
 - Vector/high resolution output
 - Not WYSIWYG
 - Standardized map products
 - Symbology
 - Scale and extent
 - Map sheet boundaries
 - Page layout
- 'Just in time' delivery
 - Minimizing production time
 - Up-to-date products



Production Mapping for ArcGIS Server

Authoritative Map Production Services





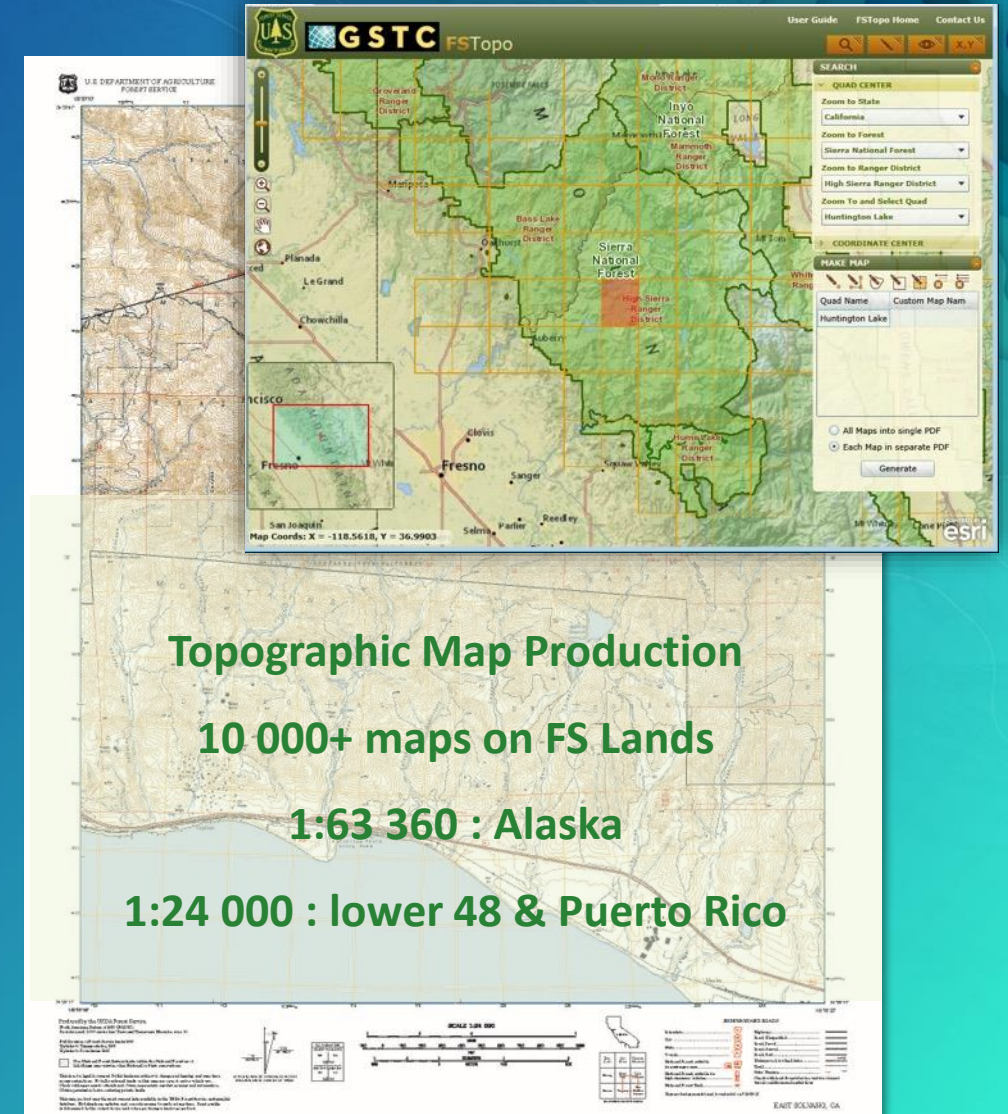
Product on Demand (POD)

Demo

POD case study: US Forest Services

“On demand” delivery of USFS primary base series map products

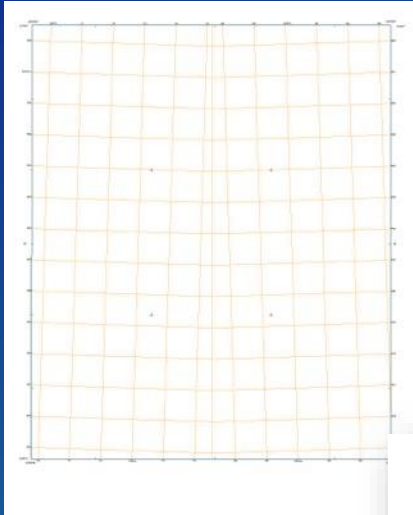
- Improves ‘collect once, use many’ economy
- Accessible to anyone on the Forest Service Intranet
- Improves geospatial data sharing outside of a GIS
- Maps used:
 - electronically
 - printed in the office
 - lithographic printing



PDF Generation

Geoprocessing Service

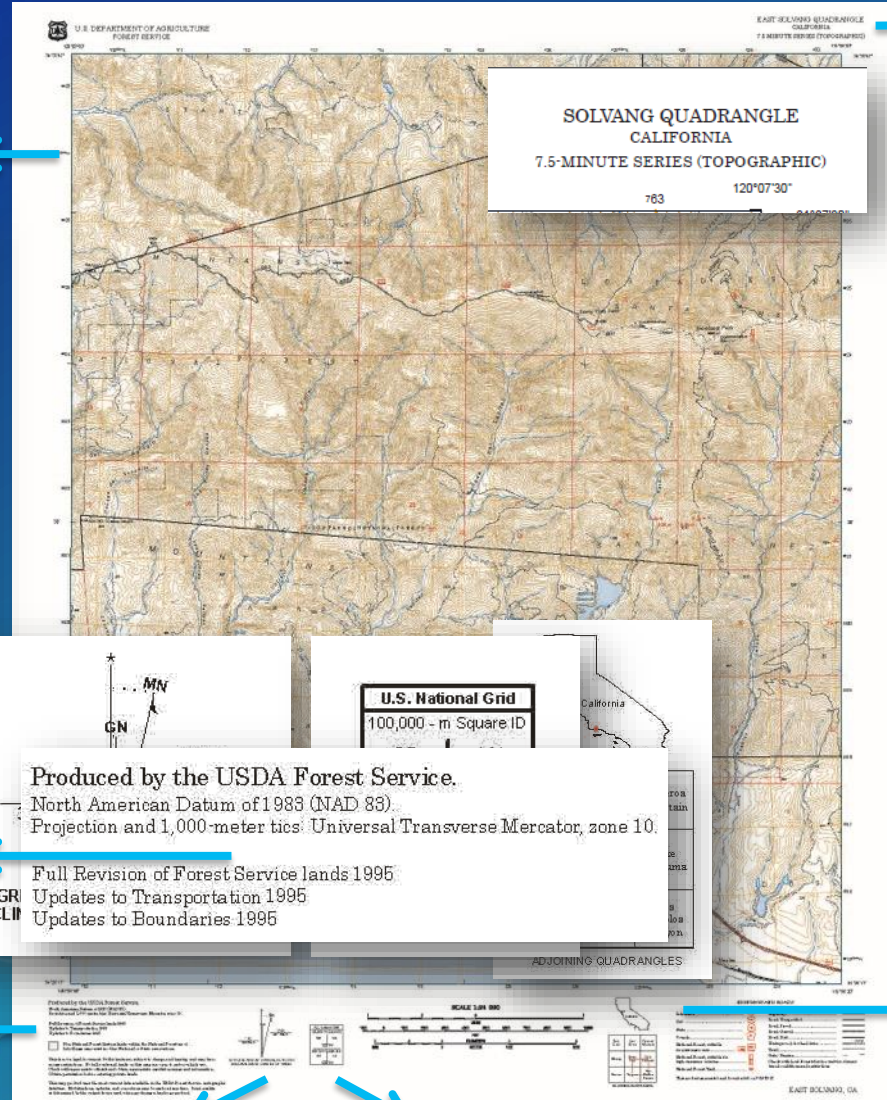
Make Grids and Graticules Layer



Add Grid Data

Extent, Scale, Spatial Reference, Clip

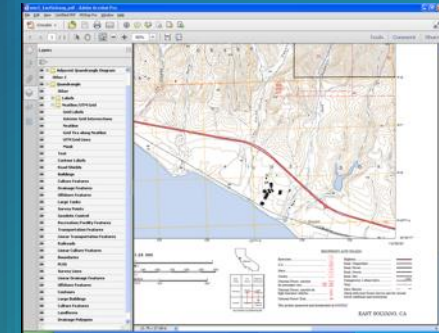
Read attributes with
SearchCursor and update
TextElement



Topo North Arrow
Element

National Grid Reference Box
Element

Read attributes with
SearchCursor and update
TextElement



ExportToPDF Function

Set Layer DefinitionQuery to
display State

POD Case Study: Ergon Energy – Queensland, AU

Electricity distribution & network maps 'on demand' to field workers



Replaces shared drive of static PDFs

Replicated data...current every week

~ Week to setup

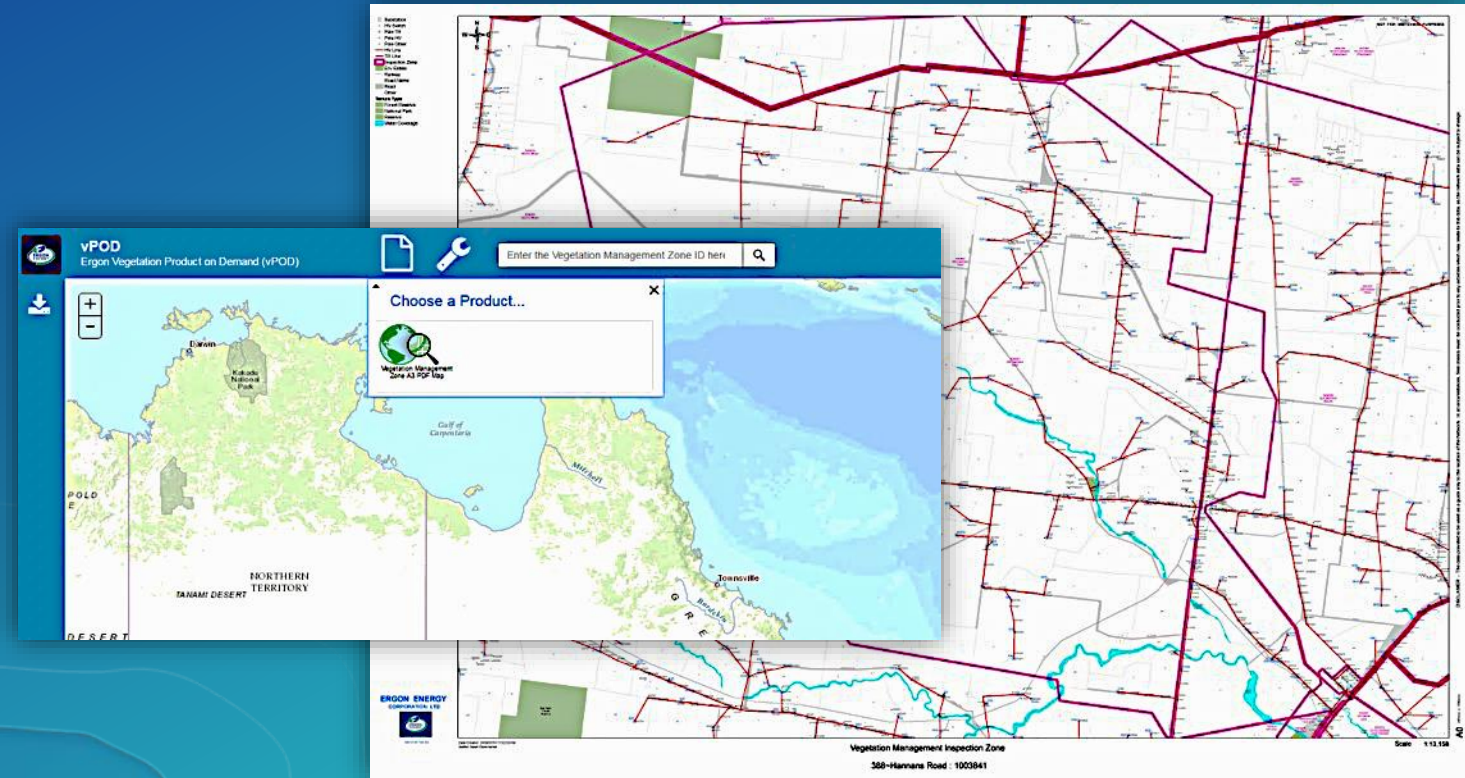
MXD

Data

Web App

1st Product - vegetation mapping

2nd Product soon...depo maps



Production Mapping for ArcGIS Server 10.5

What features are included in the product?

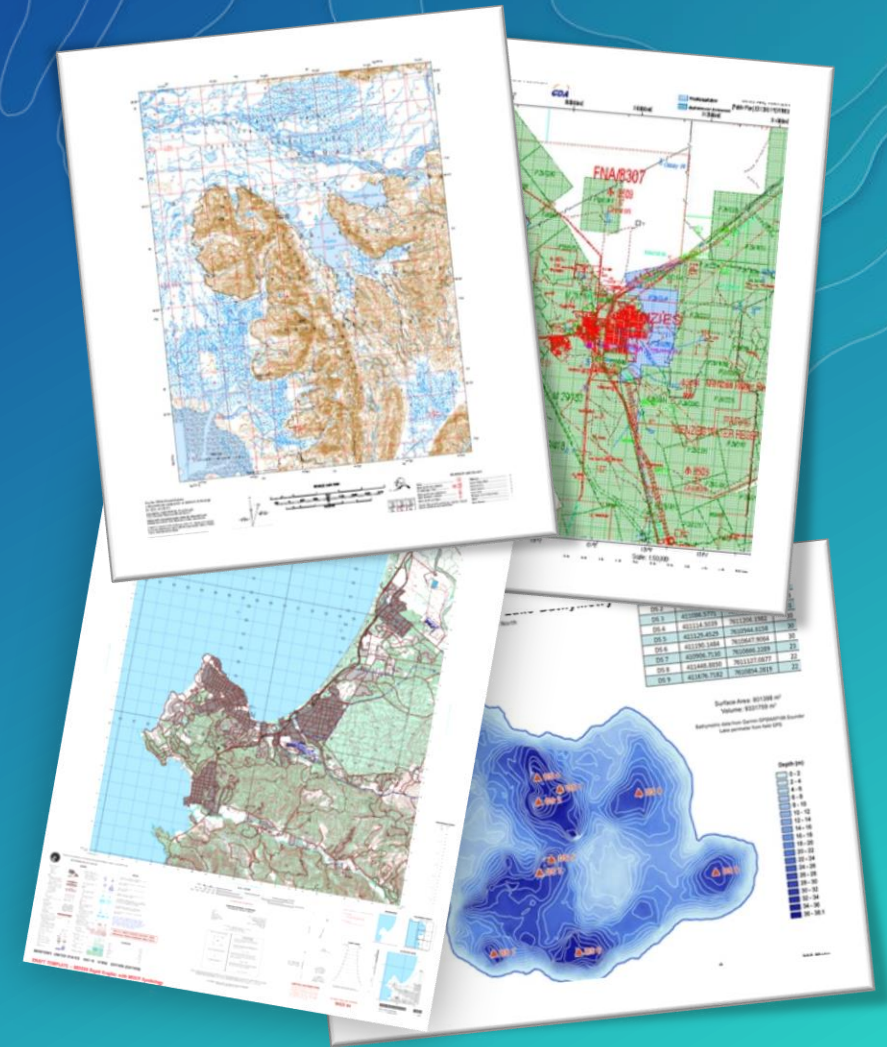
Behavior-based cartographic calculators

Advanced custom print and export services

Collection of industry specific map surround elements

GP & ArcPyProduction site package

JS starter app for advanced printing and exporting



Configurable “Starter App”

Full functioning ArcGIS Server high-end map generation & export solution

Mapping and Charting Solutions

Desktop configuration

MXDs/surround elements

Grids and Graticules

Layout rules

Map exporters

Java Script

Config file

CSS

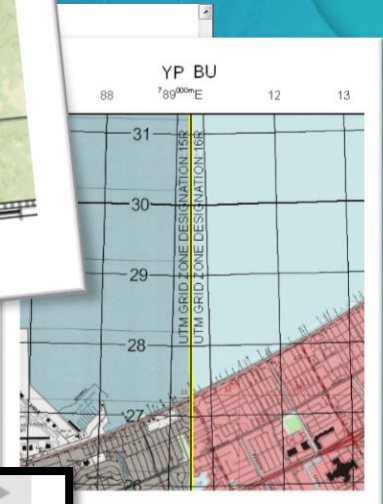
GP Services

Python

```
//PRODUCT TYPE AND PRODUCT DEFINITION SETTINGS
//PRODUCT TYPE AND PRODUCT DEFINITION SETTINGS
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// SCALE LIST USED TO DISPLAY SCALE VALUES FOR "Area" and
var ScaleList = [
  { displayName: "1:500,000", value: "500000" },
  { displayName: "1:250,000", value: "250000" },
  { displayName: "1:100,000", value: "100000" },
  { displayName: "1:50,000", value: "50000" },
  { displayName: "1:25,000", value: "25000" }
];

// PAGESIZE LIST USED TO DISPLAY PAGESIZE VALUES FOR "Area"
// Paper size chart: http://resources.printheadbook.com/pag
var PageSizeList = [
  { displayName: "A0 (841mm x 1188mm)", index: 0, width: 841, height: 1188 },
  { displayName: "A1 (594mm x 841mm)", index: 1, width: 594, height: 841 },
  { displayName: "A2 (420mm x 594mm)", index: 2, width: 420, height: 594 },
  { displayName: "A3 (297mm x 420mm)", index: 3, width: 297, height: 420 },
  { displayName: "A4 (210mm x 297mm)", index: 4, width: 210, height: 297 },
  { displayName: "A5 (148mm x 210mm)", index: 5, width: 148, height: 210 },
  { displayName: "ANSI A (Letter, 216mm x 279mm)", index: 6, width: 216, height: 279 },
  { displayName: "ANSI B (Ledger, 432mm x 559mm)", index: 7, width: 432, height: 559 },
  { displayName: "ANSI C (432mm x 559mm)", index: 8, width: 432, height: 559 },
  { displayName: "ANSI D (559mm x 864mm)", index: 9, width: 559, height: 864 }
];
```



What is ArcPyProduction? (arcpyproduction)

Extensions » Production Mapping

ArcPyProduction is a site package that contains a function and a module to access key Esri Production Mapping functionality. This package provides the ability to call functionality through Python to automate workflows. Similar in concept to the ArcPy site package in ArcGIS and its associated modules, this package provides a native Python experience that offers code completion (you can type a keyword and a dot to get a pop-up list of properties and methods supported by that keyword, then select one to insert it). There is reference documentation for each function.

Module import

The ArcPyProduction module must be imported to run any of the functions. Code autocomplete is only available once it has been imported. The ArcPy site package is also required since the ArcPyProduction functions are built upon arcpy objects.

Use the following keywords to import the module.

```
import arcpy
import arcpyproduction
```

Production Mapping for ArcGIS Server

- More Information

Esri Production Mapping for Server

<http://server.arcgis.com/en/server/latest/get-started/windows/production-mapping-for-server.htm>

Videos demonstrations

<http://video.esri.com/watch/4244/esri-production-mapping>

<http://video.esri.com/watch/4243/standardized-mapping-with-product-on-demand>

http://video.esri.com/watch/4242/self_dash_service-mapping-with-product-on-demand

Live sample site

<http://pod.arcgis.com/>

POD sample JavaScript application on Github

<https://github.com/Esri/product-on-demand>

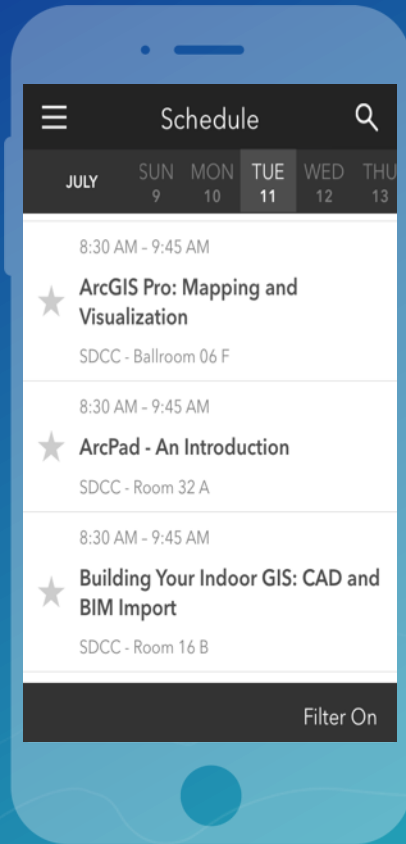


Please Take Our Survey on the Esri Events App!

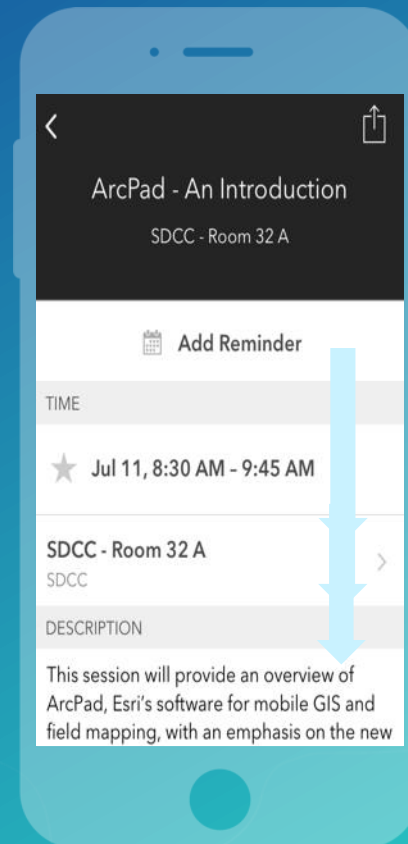
Download the Esri Events app and find your event



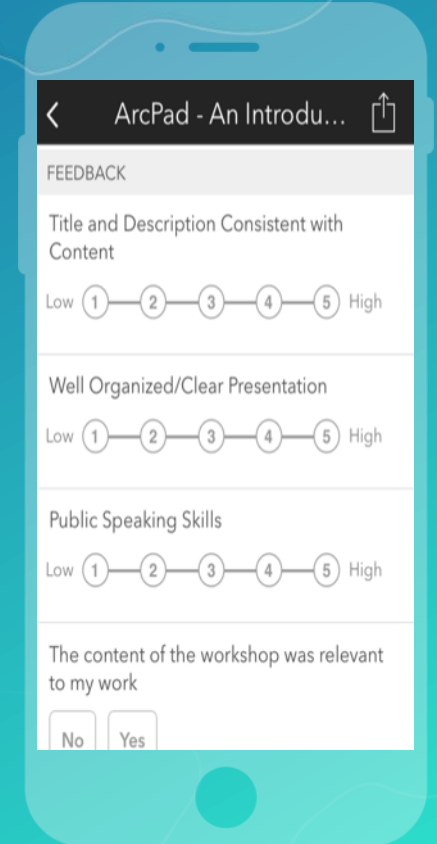
Select the session you attended



Scroll down to find the survey



Complete Answers and Select "Submit"





esri

THE
SCIENCE
OF
WHERE