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

Topographic Map Production
10 000+ maps on FS Lands
1:63 360 : Alaska
1:24 000 : lower 48 & Puerto Rico
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

Set Layer DefinitionQuery to display State

ExportToPDF Function

Produced by the USDA Forest Service.
North American Datum of 1983 (NAD 83)
Projection and 1,800-meter tile: Universal Transverse Mercator, zone 10.

Full Revision of Forest Service lands 1996:
Updates to Transportation 1966
Updates to Boundaries 1966

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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
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
Production Mapping for ArcGIS Server

- More Information

Esri Production Mapping for Server


Videos demonstrations

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

Live sample site

http://pod.arcgis.com/

POD sample JavaScript application on Github

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