
Jeremiah Moore
G.C. Rice
Overview
Esri Defense Mapping
Esri Defense Mapping
Produce, Manage, and Share Authoritative Content

System of Engagement

Apps

Systems of Record

Desktop
Server

Web GIS
Services
Mission Critical Information

Specification Driven

Quality Controlled

Automated & Efficient

Standardized Workflows
Esri Defense Mapping
Enabling Defense Authoritative Content Producers and Users

• Defense Mapping as a Platform
  - Produce Authoritative Content
  - Manage Production Environment
  - Share and Collaborate
Cartographic Automation
Expediting the Desktop Map Creation Process

Rapid Mapping
Data Preparation → Create Rapid Graphic → Export Map

Evaluate Map → Enhance Cartography → Publish Map

Centerline Data

Cartographic Product
Data Preparation
Creating and Preparing Cartographic Data

Create Data
- Extract Area of Interest (GP)
- Create Contours (GP)
- Create Spot Heights (GP)
- Add Boundary Data
- Add Map Sheet Information

Prepare Data
- Calculate Visual Specifications (GP)
- Building Offsets (GP)
- Calculate Bridge Overrides (GP)
- Suppress Spot Heights (GP)
Create Rapid Graphic
Automated Map Creation using ArcGIS Desktop

Centerline Data → Data Preparation → Create Rapid Graphic → Geoprocessing
Rapid Graphic Output
Geoprocessing Options

- Centerline Data
- Data Preparation
- Create Rapid Graphic
- Output Options

- Map Document
- Production PDF
- Map Package
Providing Authoritative Defense Content
Integrated Across the ArcGIS Platform

Collect / Produce

Manage / Share

Specifications
Data Models
ETL

Disconnected Editing
Land Operations
Map Applications
Executive Access

Authoritative Content
Server
Online Content and Services
Defense Mapping for Server
What’s in the Box?

- Defense Mapping toolbox
- MGCP and TDS database schemas
- Cross Reference Databases
- Visual Specification Databases
- Grid XMLs, MXD templates
- Setup files for Product on Demand
Product on Demand Application (POD)
Product on Demand application (POD)
GIS Server File Structure for POD

arcgisserver
    (this is typically installed at C:\arcgisserver)
    MCS_POD
    Products
    Custom Product folder
    - File Geodatabase, or Enterprise connection file
    - Grid XML file
    - Template MXD
Cartographic Processes

Data Creation Process
- Create Contours
- Create Spot Heights

Cartographic Process
- Building Offsets
- Bridge Overrides
- Calculate and Apply Representations

Create Rapid Graphic
- Populate Map Sheet Info
- Make Grids and Graticules
- Create Adjoining Sheet Guide Data
- Create Elevation Guide Box Data
- Convert Labels to Annotation
Standard Products Delivered with POD

- MTM 50 and MTM 100
- TM 50 and TM 100
- Points of Interest
Custom Products for POD

- Imagery based
- Map Book \ Map Atlas
- Strip Map
- Topographic Navigation
- Generalization
Adding a Product to POD

Creating a custom product
Generalization and POD
Map Automation with Esri Defense Mapping
Automated Generalization
One database, multiple products
Mapping and Cartographic Automation

Generalization Processes with Defense Mapping

- Best Scale Foundation Content
- Elimination / Thinning / Aggregation
- Settlement
- Transportation
- Hydrography
- Landcover
- Infrastructure
- Simplify / Smooth
- Maintain Relationships
- Generalize Shared Features
- Cartographic Automation
Custom POD Product Example - Generalization

- Defense Mapping includes Models for 50K to 250K TDS Generalization

- Sample script to call all models

- Modified models to support 25K to 50K/100K as proof of concept

- Added to DefenseMappingServer.pyt

- Output products are 50K and 100K TM from 25K source data
Samples of POD Products and Outputs
Please Take Our Survey on the Esri Events App!

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Select the session you attended

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Complete Answers and Select “Submit”
Esri Defense Mapping Team

Esri Showcase, Defense and Intelligence, SDCC Exhibit Hall B1

- Tuesday 9:00 am – 6:00 pm
- Wednesday 9:00 am – 6:00 pm
- Thursday 9:00 am – 1:30 pm

• Support & Demos

• Technical Workshops
Want to learn more?

Online Resources

• **Documentation**
  - [Esri Defense Mapping](#)

• **Training**
  - [Introduction to Esri Defense Mapping](#)

• **Resources**
  - [ArcGIS Help: Esri Defense Mapping](#)
  - [GeoNet: Esri Community Forum](#)
Questions
