



# Putting Your Digital Signature To Work at ODOT

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Engineering Automation Conference  
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# Digital Signatures @ ODOT

- Links

- ODOT Intranet Digital Signature Page -  
<http://transnet.odot.state.or.us/hwy/eta/Pages/Digital-Signatures0128-6433.aspx>

- Resources

- ODOT Digital Signature User Guide -  
[http://transnet.odot.state.or.us/hwy/eta/Documents/ODOT%20CoSign%20User%20Guide\\_V1\\_022416.pdf](http://transnet.odot.state.or.us/hwy/eta/Documents/ODOT%20CoSign%20User%20Guide_V1_022416.pdf)
- DocuSign's CoSign User Guide -  
[http://transnet.odot.state.or.us/hwy/eta/Documents/CoSigns%20User%20Guide%20v7\\_5\\_022416.pdf](http://transnet.odot.state.or.us/hwy/eta/Documents/CoSigns%20User%20Guide%20v7_5_022416.pdf)

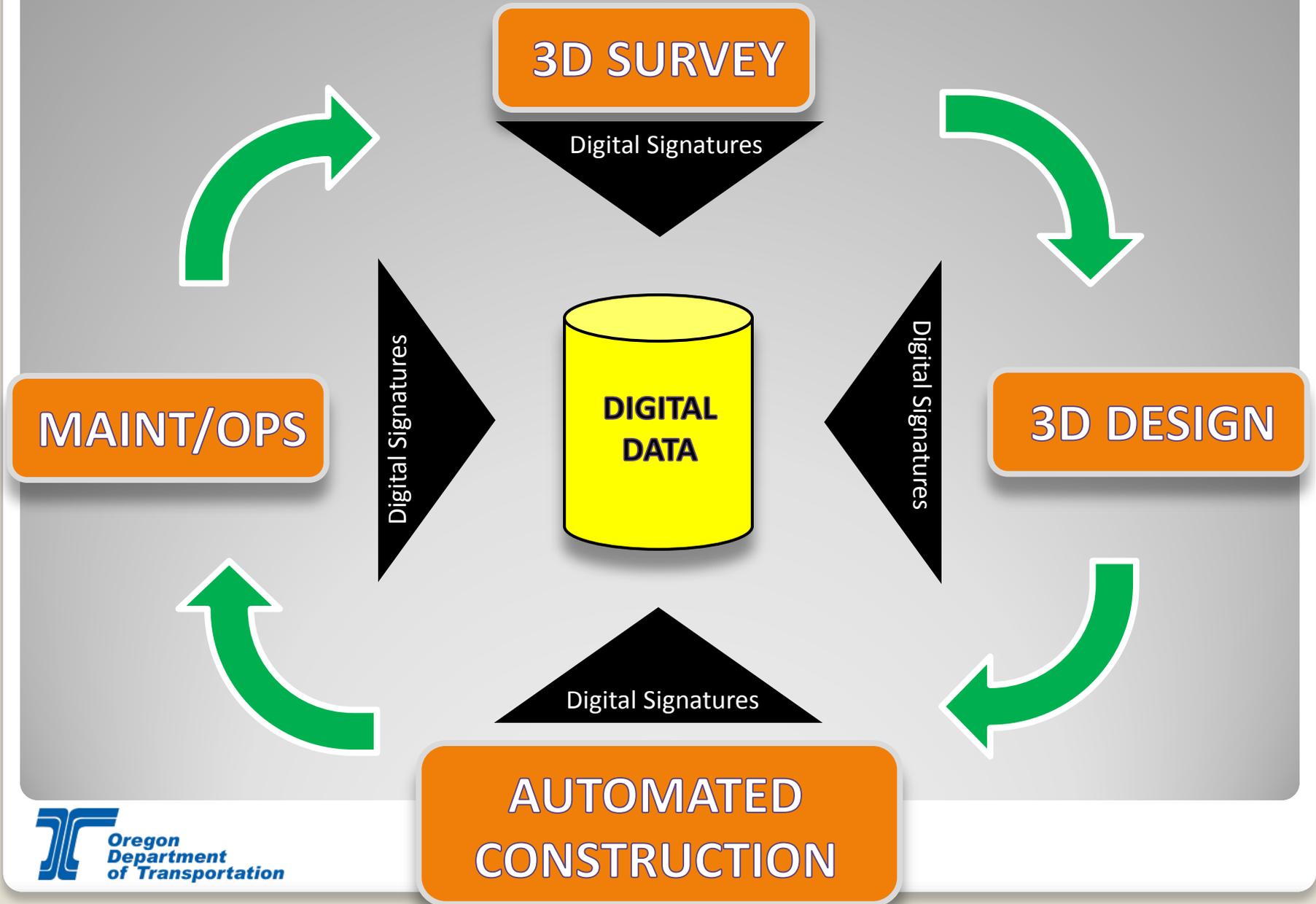


## Why is it important?

- Saves resources (time & paper)
- Integral to a digital process of Survey, 3D Design, e-Plan, Bidding, e-Construction, As Constructed Survey, Maint/Ops, Planning & Scoping, etc.
- Meets OSBEELS requirements

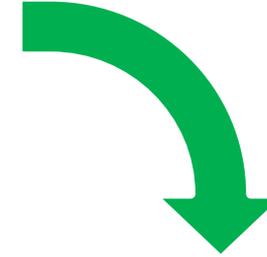
The Oregon State Board of Examiners for Engineering and Land Surveying  
(OSBEELS)

# ENGINEERING AUTOMATION

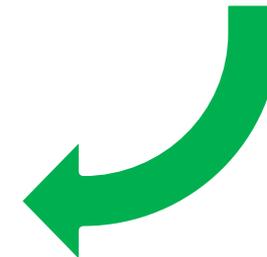


# TRADITIONAL PROJECT DEVELOPMENT

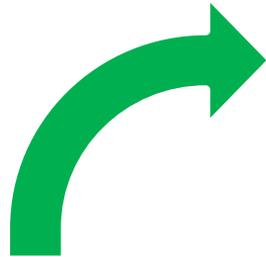
**SURVEY**



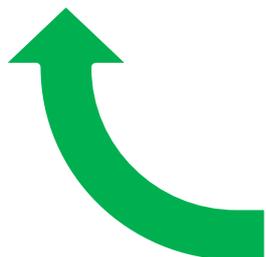
**DESIGN**



**CONSTRUCTION**



**MAINT/OPS**



**DOCUMENT  
MANAGEMENT**





# ODOT TSB Digital Signature Advisory

## OREGON DEPARTMENT OF TRANSPORTATION Technical Services *Advisory* TECHNICAL SERVICES

TOPIC Digital Signature-Documents Requiring Professional Of Record Seal	NUMBER TSB16-01(A)	SUPERCEDES OR RESCINDS
APPROVAL  Original signed by: Thomas Lauer, P.E. Technical Service Branch Manager	EFFECTIVE DATE 03/21/2016	VALIDATION DATE

EFFECTIVE DATE  
**03/21/2016**

### Topic

The purpose of this advisory is to provide guidance for Professionals of Record (POR) and others digitally signing documents for Highway Division Construction projects to expedite the flow of digital document routing and acceptance through the entire process. Digital Signatures are to be used by all ODOT PORs and others to digitally sign documents and data for all documents defined in [TSB11-02\(D\)](#) as requiring a POR seal. This will increase efficiencies by reducing resources, time, and paper.

### Advisory Information *(in use by Professional of Record)*

#### BACKGROUND

ODOT is currently updating business processes that are adapting to new technologies that have become available. For those employees who have been required to seal (sign) their work, the prior process was to print the document, affix a "wet" signature, stamp it and finally, scan the document back into a digital document (e.g. a PDF document). Digital signatures offer three advantages over wet signing physical documents:

- The author can be verified as having signed the document
- The signer cannot deny having signed the document
- The signature is valid until the document is modified.

This Technical Services Advisory moves ODOT to digitally signing (sealing) electronic files produced by Professionals of Record (POR). Digitally signing electronic documents replaces the prior business process noted above.

#### GUIDANCE

*Any changes/updates in Technical Services Directives or Bulletins (Manuals, Standard Specifications and Drawings) take precedence over information in Advisories.*



# Types of Electronic Signatures

**Electronic Signature** – Non-verifiable and unsecured

**Digital Signatures** - A type of electronic signature that transforms a message through the use of an algorithm or series of algorithms that provide a key pair, private and public, for signer verification, document security, and authentication.



# What is needed for Digital Signatures?

- Software-CoSign
- Digital ID Certificate

ODOT will issue certificates to internal employees only and is its own Certificate Authority.



## **ODOT's current Digital Signature implementation Focus**

- The current Digital Signature Implementation focuses on Engineering project related documents.
- Not currently focused on other Agency business line needs.



# Digital Signatures @ ODOT

Examples of products requiring the seal of a POR

Final Pictorial Requirements	Final Text Documents	Final Calculations
Project Plans	Reports	Hand-written calculations
Drawings	Narratives	Spreadsheets
Details	Design Memos	Design software output
Standard Drawings	Design Exceptions and Deviations	Graphs
Sketches	Standard Drawing Baseline Report	Calculation books
Tables and Data Sheets	E-mails or conversation records documenting professional direction	
Maps and Plats	Project Specifications and Special Provisions	



## Digital Signatures @ ODOT

# Live Demonstration



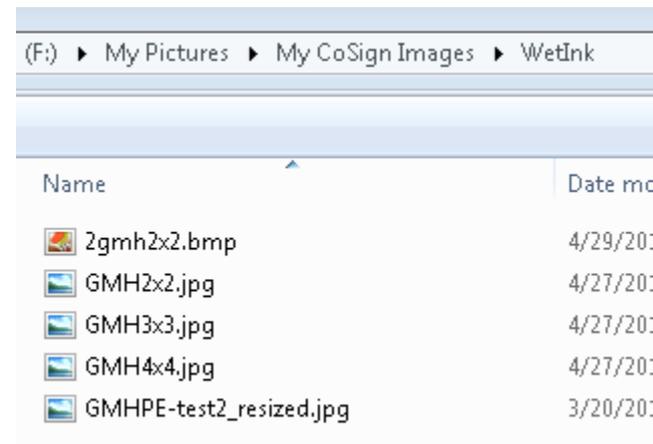
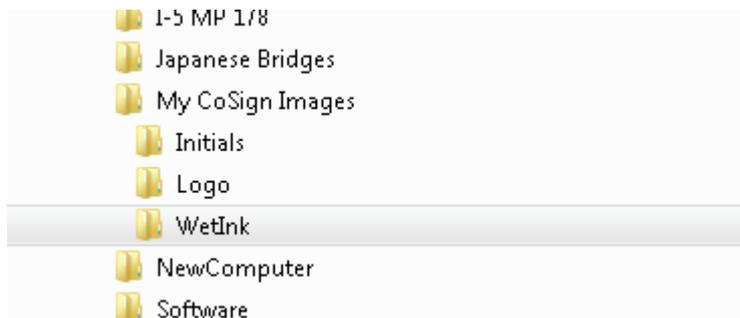
# Creating your seal

- In MicroStation find a copy of your seal, or if one doesn't currently exist, create one from an existing cell library.
- Ensure the data is correct and current
- Place a border to create a 2" X 2" cell.
- Print the cell to scale, using the jpeg\_400dpi\_WhiteBkgrd.pltcfg driver and the plans.tbl pen table.



# Creating your seal, continued

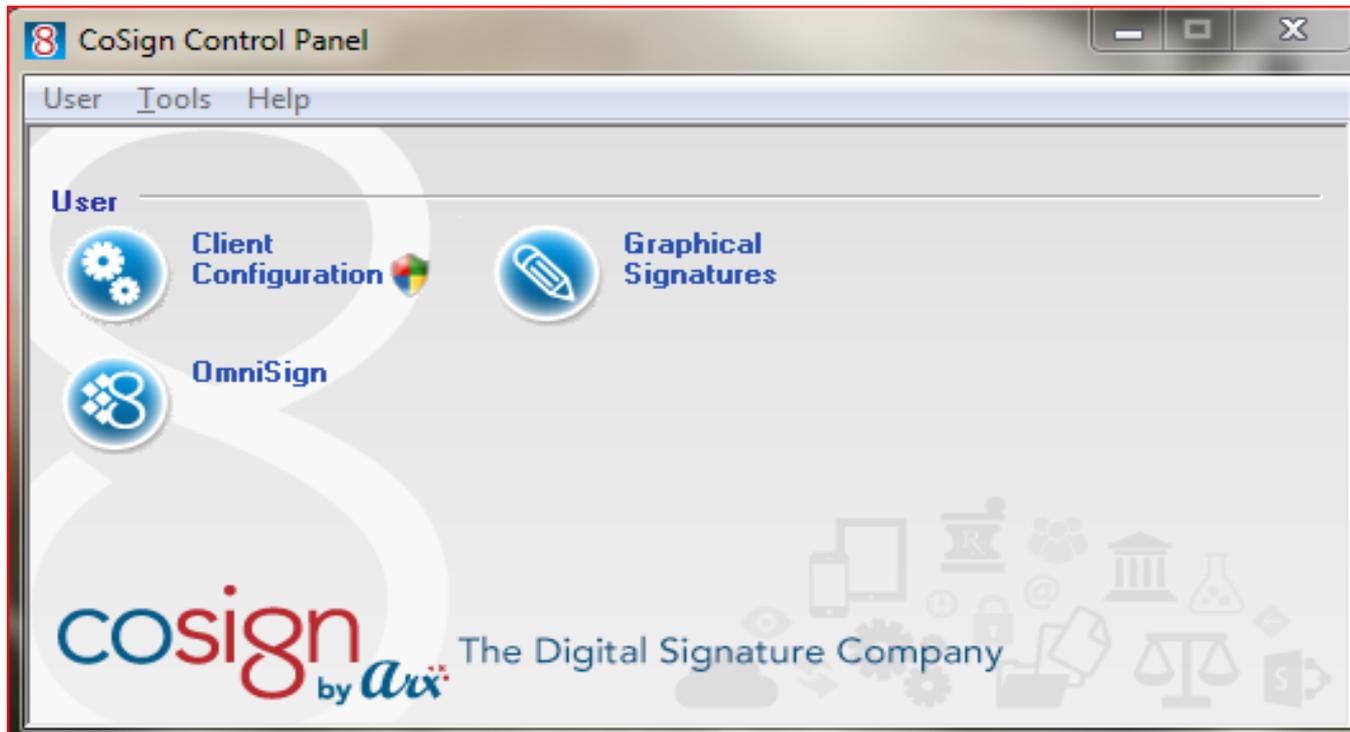
- You should now have a 2" X 2" JPEG of your seal.
- On your F:\ drive, locate the My Pictures directory, then the My CoSign Images under it. Inside the My CoSign Images folder you have three choices. Use the subdirectory WetInk





# Digital Signatures @ ODOT

In “All Programs” on your computer, find the ARX CoSign folder and open the CoSign Control Panel





# Creating Signatures

- Open your CoSign Control panel. For convenience I pin mine to me task bar.
- Click Graphical Signatures
- Click +New Signature button
- Create a name. I recommend the name correspond to the signature type
- I recommend Calibri or Arial, Regular, 28 PT or larger. The larger font give a nicer signature.
- Type the signature in the white box. This could be your name initials the phrase 'digitally



# Creating Signatures, cont.

- I recommend Calibri or Arial, Regular, 28 PT or larger. The larger font give a nicer signature.
- Type the signature in the white box. This could be your name, initials, the phrase 'digitally signed', or other wording required by your board.



# Applying Signatures

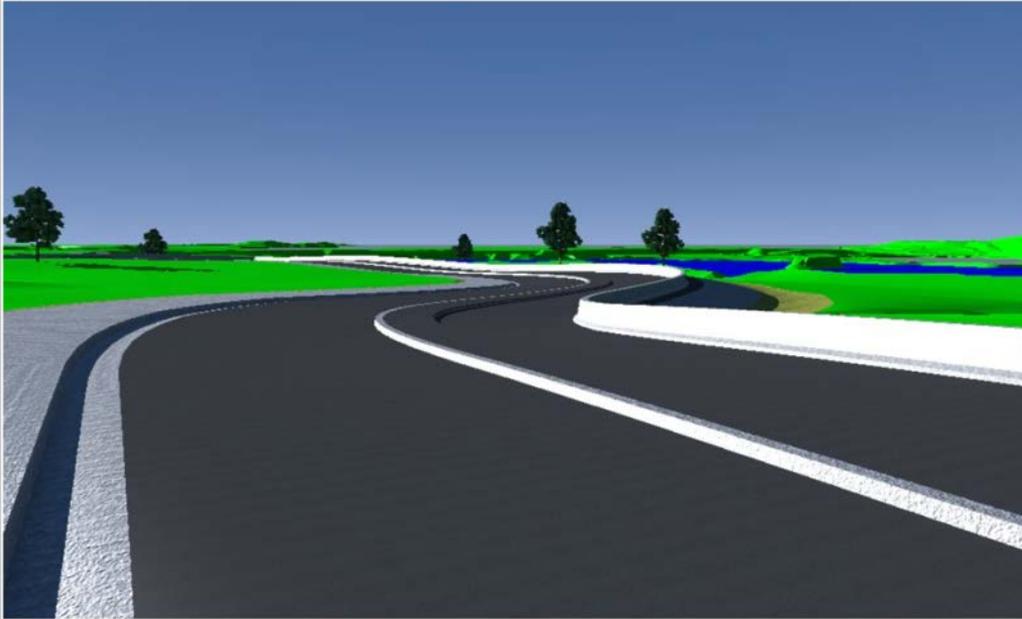
- Signatures are best applied to PDF's using OmniSign
- Signatures applied to most other content will be applied within the native file.
- XML and TIFF require the use of ARFileSign. This command line signature will be covered in future training.



# Digital Signatures @ ODOT

Questions ?

# Thank You!



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Internet: [www.oregon.gov/ODOT/HWY/ETA/Pages/default.aspx](http://www.oregon.gov/ODOT/HWY/ETA/Pages/default.aspx)

Intranet: <http://transnet.odot.state.or.us/hwy/eta/SitePages/Home.aspx>

