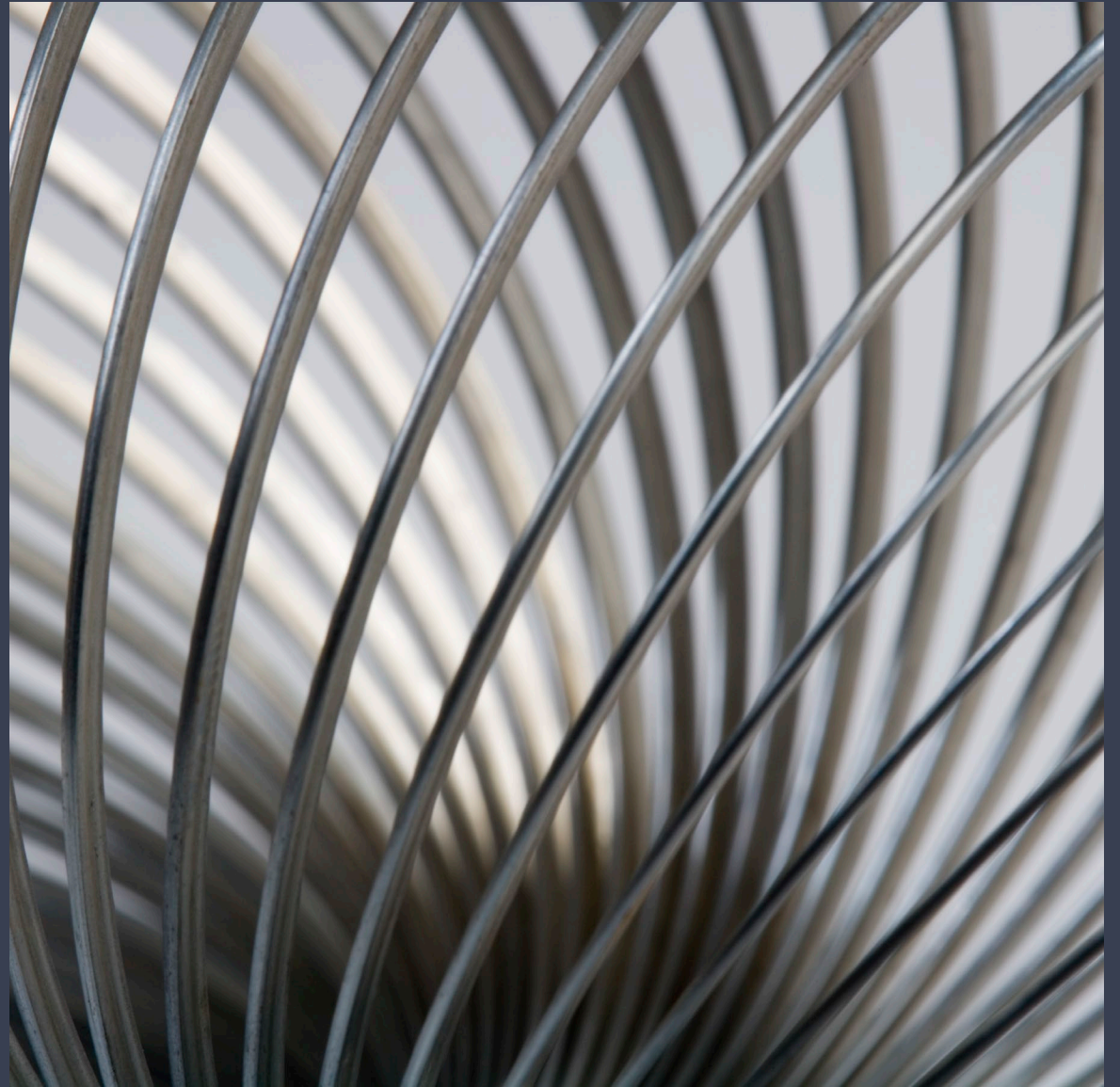# NUGM 2024

CREATING WEB FUNCTIONS

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AGENDA

- Recognizing Web Functions

- Creating Web Functions

- Setting Up the Web Wizards

- Types of Web Wizards

  - HyperQuery Wizard

  - BTO Inquiry Wizard

  - BTO Posting Wizard

- What About Custom Files?

- Web Wizard Caveat

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RECOGNIZING WEB FUNCTIONS

- The Manage 2000 Web Wizards provide a fast, easy starting point for web function development

- Web Functions are Type W in FN.BUILD

- Standard naming convention for Web Function Names is Upper and Lower case and without periods

- Treat Web Functions like any other M2K function

  - Can put on Menus

  - Can set up Security

  - Can be used in an F-Type MSO

- Web Functions can be added to both PWS menus and Web menus in MENU.BUILD

- Web Functions can be run directly by typing in the Function Name

- Web Functions come up in your default Web Browser

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CREATING WEB FUNCTIONS

- Use the REPORT.BUILD Web Interpreter

    - No web programming required

    - There is a Flag in REPORT.BUILD to create a Web Function (Screen 3, Prompt 23 Create Web also)

        - Defaults to Y so the Web Function creation is automatic

    - See INTRO.WEB.COURSE|Web Site Tailoring|Developing Web Queries for Workshops on using REPORT.BUILD

- Use the M2K Web Wizards in Visual Studio

    - The wizards provide a fast, easy way to choose Transaction Files and Dictionaries for the web function

    - They provide the code-behind necessary for using the BTO framework

    - They provide the Manage 2000 web user experience

        - Cross Referencing

        - Validation

        - Last Keys

        - Prompt Stacks

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SETTING UP THE WEB WIZARDS

- The wizard templates are included in the Manage 2000 installation

- You must tell Visual Studio where to find the templates

  - SYS.WEB.HOWTOS | WEB.VS.WIZARDS.SETUP

- In Visual Studio, select Tools | Options | Projects and Solutions | Locations

  - Set User Project Template Location

  - Set User Item Template Location

- The Wizards will be available when you create a New Project in Visual Studio

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TYPES OF WEB WIZARDS

- Web Function – the original wizard used by the developers

  - Creates the project within the Manage 2000 website using the Microsoft Sub-Project pattern

  - Includes the web menus, an ROI Text Box, Go Button, responsive display area with labels & textboxes

  - Doesn't create significant code-behind

- HyperQuery

- BTO Inquiry

- BTO Posting

- Mobile Inquiry

  - Like the BTO Inquiry, but styled for a mobile app

  - Now the BTO Inquiry can be viewed as mobile

HYPERQUERY WIZARD

- Multiple choice selection for Files and Fields

- Same table layout as the web functions created with REPORT.BUILD

  - Paging, Sorting, Filtering, Exporting

- Generates a starting version of the entry page

  - From/To Date prompting is available with International Date support

- The developer has control over the entry page

  - Hyperlinks can be added with the HyperQueryControl property editor

  - Header and Footer HTML displays can be added

- Examples

  - INTRO.WEB.COURSE|Web Site Tailoring|Developing HyperQueries|Workshop – Using the HyperQuery Wizard

  - Arepnet - Demo Function available in the Demo folder of the website

- Demo

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BTO INQUIRY WIZARD

- Generates a read-only web function to pull data from the BTO Framework

- Includes all the required data access code!!!

- Physical File-based and simple BTO_Read transactions work best with the wizard

- Handles multi-valued data

- Prompts for input from the user

- The wizard can be used as a starting point for Web Function development

- ADV.WEB.COURSE|Manage 2000 Data Access Components|Workshop – Using the Web Inquiry Wizard

- Demo

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BTO POSTING WIZARD

- Generates a web function to pull and post data from and to the BTO Framework

- Includes all the required data access code – this is H-U-G-E!!!

- Physical File-based and simple BTO_Read transactions work best with the wizard

- Handles multi-valued data

- Prompts for input from the user

- The wizard can be used as a starting point for Web Function development

- ADV.WEB.COURSE|Web Maintenance Function Issues|Workshop – Using the Web Posting Wizard

- Demo

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WHAT ABOUT CUSTOM FILES?

- If you want to use a Web Wizards with a custom file, you will have to create a Custom Transaction

- Use DICT.BUILD – Option 13 to help you create a custom transaction

  - Transaction File Name will have the form TD_C_XXX

  - Specify dictionaries to create or copy dictionaries from existing files

    - Both 'D' and 'I' descriptor dictionary fields may be copied

  - Generates and updates the appropriate TD_XXX.BTO_Read subroutine

  - More details in the Function Documentation under Building Transaction Definition Files

- More coding in the TD_XXX.BTO_Read subroutine may be required

  - Make sure to put code between the **#* User tags so it will not be changed by DICT.BUILD

- Add the custom transaction to TRANS.MASTER.MAINT

- Restart the JavaScheduler, then run the Dataset Utility for your new TD_C_XXX transaction

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WEB WIZARD CAVEAT

- There are many different kinds of Business Objects

- The wizards are <u>not</u> intended to produce a satisfactory finished function from <u>all</u> types of business objects

- Complex, multi-file business objects with Server Procedure Call components (e. g. ItemActivity) will require substantial development

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