

# [Full Access]

D-104 Gellert Rotunda

## Tales from Under the Hood:

- ▶ FileMaker clipboard metadata - valuable ways to use FileMaker's private data types.
- ▶ The value of ODBC - Communicating with FileMaker databases like a SQL database.



**David Simpson**

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## FileMaker Clipboard Data:

- ▶ It started with a conversation I had with Todd Geist at DevCon.
  - ▶ Did you know that FileMaker puts a lot of interesting info onto the clipboard?
- ▶ This conversation started my journey into exploring FileMaker clipboard objects.
- ▶ I have used the private clipboard data functionality extensively to build tables, value lists, custom functions, layouts & scripts.
- ▶ Access, Visual FoxPro, SQL Server & MySQL to FileMaker
- ▶ FileMaker Table Consolidation or Rebuild projects

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## FileMaker Clipboard Data:

- ▶ Last year, this video from Todd showed performing script generation with Anthropic Claude models.
  - ▶ Offscreen he is using some type of tool to set the clipboard.
  - ▶ <https://www.proofgeist.com/blog/2024/09/05/exploring-generative-ai-with-filemaker-and-having-a-blast/>
- ▶ So I built a cross-platform tool (macOS/Windows) everyone can use...

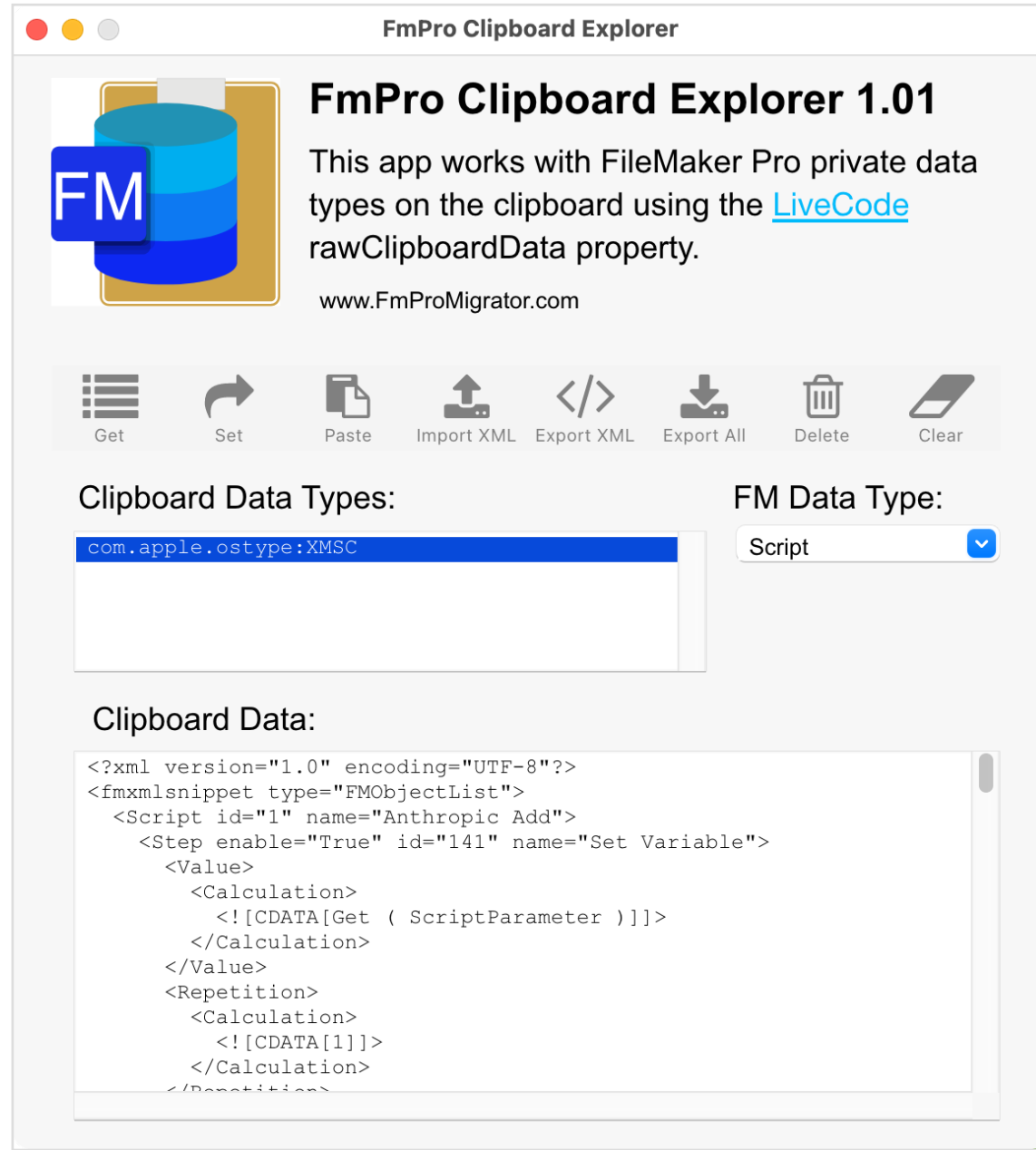
Teaching Claude.ai about OttoFMS



proof+geist

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## Quick Demo:



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## LLM Generated Script:

- Copy LLM Generated XML via web or App - Paste Button or Command+V / Control+V
- Set Button or Command+C / Control+C
- Paste into Script Workspace within FileMaker

The screenshot shows the FileMaker Pro Script to Add Numbers workspace. On the left, a description of the script is provided, and on the right, the generated XML code is displayed.

**FileMaker Pro Script to Add Numbers**

**create a FileMaker Pro script named "Anthropic Add" which adds 2 numbers together. return filmmaker script xml**

I'll create a FileMaker Pro script that adds two numbers together. This script will prompt for two numbers and display their sum.

Anthropic Add - FileMaker Script Code

I've created the "Anthropic Add" FileMaker Pro script in XML format. This script:

- Prompts for the first number** - Shows a custom dialog asking the user to enter the first number and stores it in `$firstNumber`
- Prompts for the second number** - Shows another dialog for the second number and stores it in `$secondNumber`
- Calculates the sum** - Adds the two numbers together and stores the result in `$sum`
- Displays the result** - Shows a final dialog with the calculation result

To use this script in FileMaker Pro:

- Copy the XML code
- In FileMaker Pro, go to Scripts → Manage Scripts

```
<?xml version="1.0" encoding="UTF-8"?>
<fmxmlsnippet type="FMObjectList">
  <Script id="1" name="Anthropic Add">
    <Step enable="True" id="141" name="Set Variable">
      <Value>
        <Calculation>
          <![CDATA[Get ( ScriptParameter )]]>
        </Calculation>
      </Value>
    </Step>
    <Repetition>
      <Calculation>
        <![CDATA[1]]>
      </Calculation>
    </Repetition>
    <Name>$firstNumber</Name>
  </Script>
  <Step enable="True" id="89" name="Show Custom Dialog">
    <Title>
      <Calculation>
        <![CDATA["Enter First Number"]]>
      </Calculation>
    </Title>
    <Message>
      <Calculation>
        <![CDATA["Please enter the first number:"]]>
      </Calculation>
    </Message>
    <ButtonTitles>
```

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## Clipboard Wishlist:

- ▶ Copying the contents of the Relationship Graph?
- ▶ Is this hard for Claris to implement?
- ▶ How might we use this feature?
  - ▶ Rebuild an entire solution.
  - ▶ Build a FileMaker solution from other databases: Access, Visual FoxPro, MySQL, SQL Server
  - ▶ Build relationships much faster than using AppleScript.
  - ▶ Build relationships cross-platform - not dependent upon running AppleScript on macOS.

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## Discussion

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## FileMaker ODBC/JDBC:

- ▶ ODBC instead of CSV/TAB imports.
- ▶ Examples:
  - ▶ Access, Visual FoxPro, SQL Server & MySQL to FileMaker
    - ▶ Most Access/VFP to FileMaker conversions aren't running FileMaker Server.
  - ▶ Create/Drop/Truncate Temp Tables
  - ▶ Update Existing Records
    - ▶ [Example: Update Container Fields]



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## FileMaker ODBC/JDBC:

- ▶ Drop Columns in FileMaker tables [Unstored Calc/Summary, Global Fields)
  - ▶ Consider: Dependencies between scripts/fields/calcs.
  - ▶ Programmatically cycle thru fields in both directions.
- ▶ Tools: Mirror Sync, LuminFire BrilliantSync, FmPro Migrator, Tableau Connector for FileMaker by Beezwax,

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## FileMaker ODBC/JDBC Wishlist:

- ▶ Windows 11 ARM Support
  - ▶ Microsoft Surface Pro, Surface Laptop Devices run Windows 11 ARM software
  - ▶ Apple Silicon - Parallels runs Windows 11 ARM
    - ▶ macOS 26 - Last release for x86\_64
- ▶ ODATA - How does performance compare with ODBC/JDBC?
  - ▶ Could ODATA be used without FileMaker Server?
  - ▶ Would tools like MirrorSync be able to transfer 33GB of data in 7 minutes with ODATA instead of JDBC?

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## Discussion

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Questions?

Pick up a card with the QR code to download the FmPro Clipboard Explorer.

[https://www.fmpromigrator.com/downloads/demo\\_software/index.html#fce](https://www.fmpromigrator.com/downloads/demo_software/index.html#fce)

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