

## *About This Deck*

- Is source deck for enablement kits: Claris Partners, Claris User Group leaders, Claris Community MVPs, Community Live launch events, other public presentations.
- This deck summarizes FileMaker 2025 key enhancements
  - Specific enhancements are the “proof points” which back the summary statements at front of deck
- The “Proof points” cover
  - **What** is the enhancement
  - **Who** is the enhancement targeted towards
  - **How** they may benefit from using the enhancement
- This deck also includes broader Claris platform messaging
  - Claris Studio & Connect: FileMaker data sources in Claris Studio, custom views, performance & scalability enhancements, access control
  - Platform licensing which enable Claris Studio/Claris Connect self provisioning

7 JULY 2025

# Claris FileMaker 2025

Overview & Key Enhancements for Claris Partners, Community MVPs, and User Group Leaders

CONFIDENTIAL

**Under Embargo until public launch**

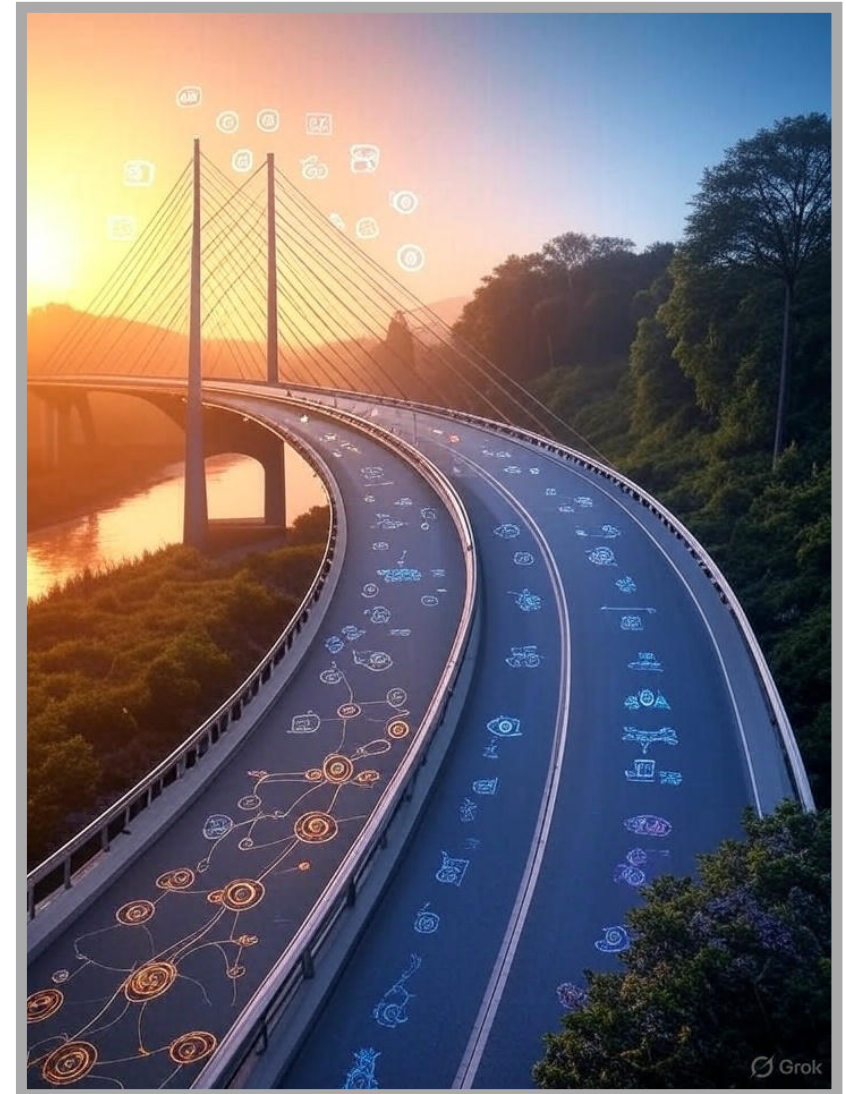




*Clarifai's mission is to make new technology approachable for developers.*

- With FileMaker 2025, you can implement AI more easily with the tools you already know to unlock the data you already have.
- And with better integration across the Clarifai platform, you get to continue focusing on solving problems with a stronger, more capable foundation.

*Build on what you know. Unlock what's next.*





# Unlock the Future with FileMaker 2025

*AI-powered solutions built on your trusted FileMaker foundations*

- Seamlessly integrate AI into your existing FileMaker solutions.
- Leverage your current data for smarter applications.
- Experience a unified platform for innovation & growth.



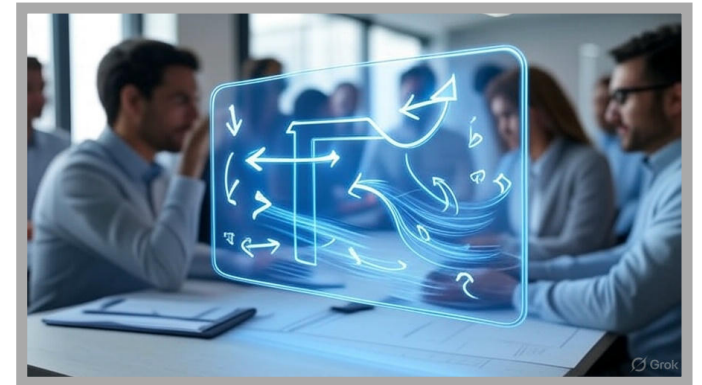




# Accelerate Innovation with Integrated AI

*Instant AI integration with your existing data*

- Utilize your current datasets for immediate AI-driven insights.
- Deploy AI solutions rapidly without extra costs or platforms.
- Simplify AI adoption to enhance user experience.

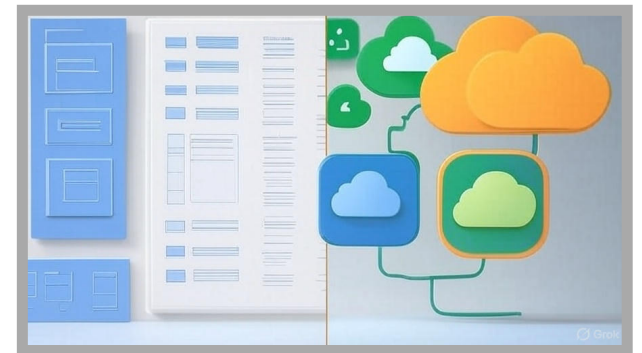




# Build Tomorrow with Today's Tools

*Evolve with core tools & modern capabilities*

- Continue relying on familiar tools with enhanced functionalities.
- Address complex workflows using advanced web & integration options.
- Access expanded resources & a supportive developer community.



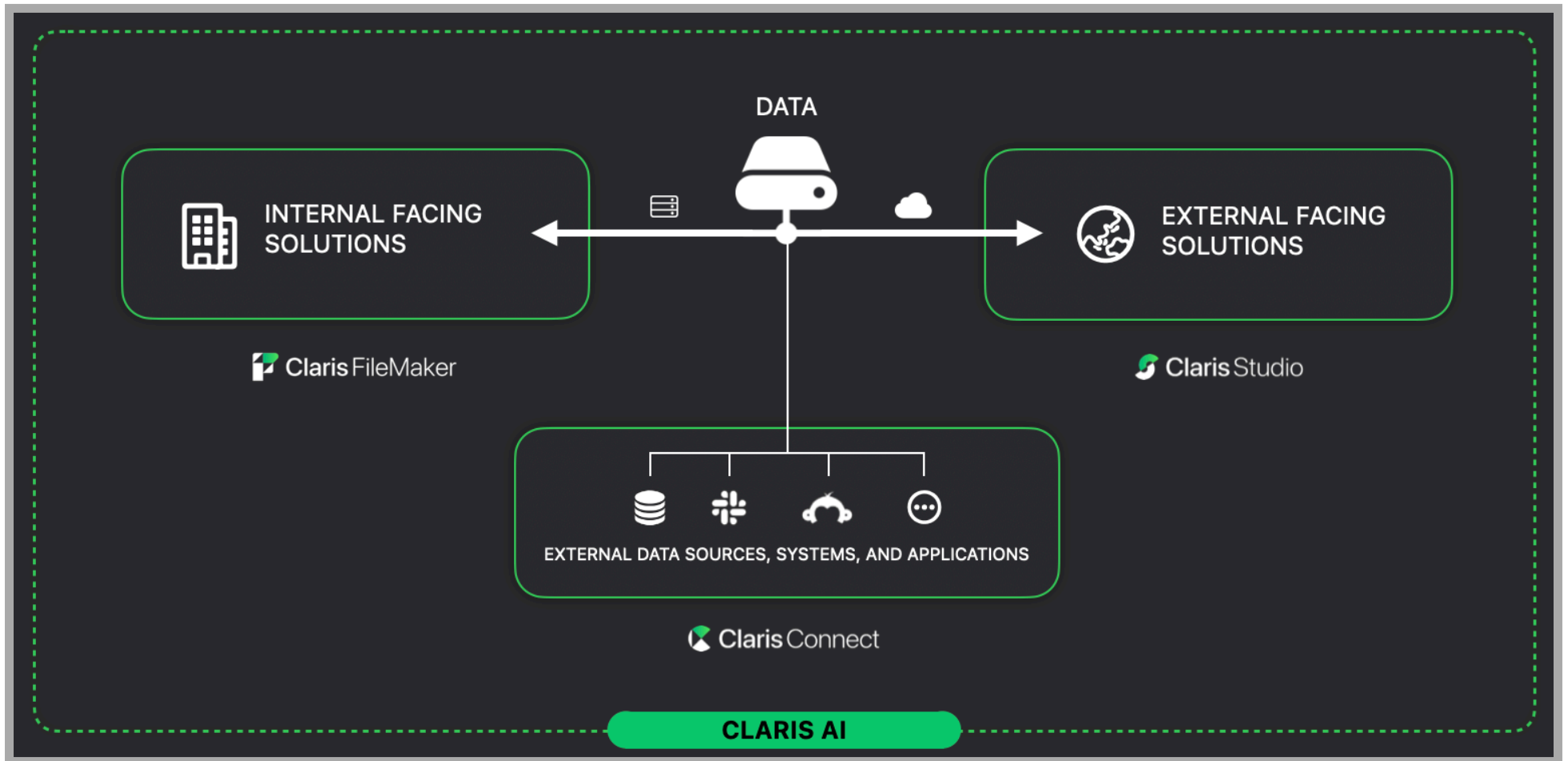


# Together on the Path of Transformation

*Great tools. Real help. A community that cares.*

- Benefit from rich developer content & guidance at every stage.
- Join a vibrant community committed to learning & innovation.
- Embark on a collective journey towards digital transformation.





# Claris FileMaker 2025 Enhancements

*This is Claris FileMaker 2025 —AI-ready, workflow-smart, web-connected.*

- AI/Large Language Models (LLM)
- Enhancements to
  - FileMaker Pro
  - FileMaker Server
  - FileMaker Go
  - FileMaker WebDirect
  - FileMaker APIs
  - FileMaker Cloud
- FileMaker 2025 integration with Claris Studio & Claris Connect
- Claris Platform Licensing





*The future of your app is already in your data.*

## AI/Large Language Model (LLM) support

### Generate Response from Model

Empowers developers to craft tailored interactions with language models by customizing prompts and function calls directly within scripts, enhancing application dynamism and user engagement. Gets a text response from an AI model given a user prompt in natural language. Can perform agentic operations with advanced prompts, conversation memory, and tool calls.

### Perform SQL Query by Natural Language

Send natural language prompt and database schema to model, which sends back SQL query to get result from the database to use in its response. The AI model creates complex SQL statements in response to a user's prompt.

### Perform Find by Natural Language

Sends a natural language prompt and a list of fields on the current layout to a model, which returns a FileMaker find request, and performs a find. Includes options to return the found set, or the find request as JSON.

### Configure Prompt Template

Sets up a prompt template to use by name in other AI script steps. Can be used in Perform SQL Query by Natural Language, Perform Find by Natural Language, and Generate Response from Model script steps..

#### ▼ Artificial Intelligence

- Configure AI Account
- Configure Machine Learning Model
- Configure Prompt Template
- Configure RAG Account
- Configure Regression Model
- Fine-Tune Model
- Generate Response from Model
- Insert Embedding
- Insert Embedding in Found Set
- Perform Find by Natural Language
- Perform RAG Action
- Perform Semantic Find
- Perform SQL Query by Natural Language
- Set AI Call Logging



*The future of your app is already in your data.*

## AI/Large Language Model (LLM) support

### Configure Regression Model

Trains a model based on embedding vectors for text data and numeric target data. Trains, saves, loads, and unloads a regression model. Trains a model based on embedding vectors for text data and numeric target data.

### Perform RAG Action

Sends a prompt to, or adds and removes data from, a RAG space on the AI Model Server specified by a named RAG account. Add PDF documents or other text-based data to create a knowledge repository that users can ask questions.

### Semantic Search & Vector Embedding Improvements

Continued refinements for more performant, flexible, and functional search results and data analysis.

### AI Services

A complete AI server providing the ability to deploy, configure, and manage AI services locally with security and privacy. Controls provided via the FileMaker Server Admin Console.

#### ▼ Artificial Intelligence

- Configure AI Account
- Configure Machine Learning Model
- Configure Prompt Template
- Configure RAG Account
- Configure Regression Model
- Fine-Tune Model
- Generate Response from Model
- Insert Embedding
- Insert Embedding in Found Set
- Perform Find by Natural Language
- Perform RAG Action
- Perform Semantic Find
- Perform SQL Query by Natural Language
- Set AI Call Logging



*The future of your app is already in your data.*

## AI/Large Language Model (LLM) support: New Functions

### NormalizeEmbedding

Normalizes an embedding vector to unit length. If specified, the dimension parameter reduces the number of vector dimensions to use before normalizing. Allows you to work with custom vectors or use specific dimensions of existing vectors for semantic search operations.

### AddEmbeddings & SubtractEmbeddings

Adds two embedding vectors and returns the result as a normalized vector. Can be used to combine the semantic meaning of two embeddings. Subtracts embedding vector v2 from v1 and returns the result as a normalized vector.

### GetRAGSpaceInfo

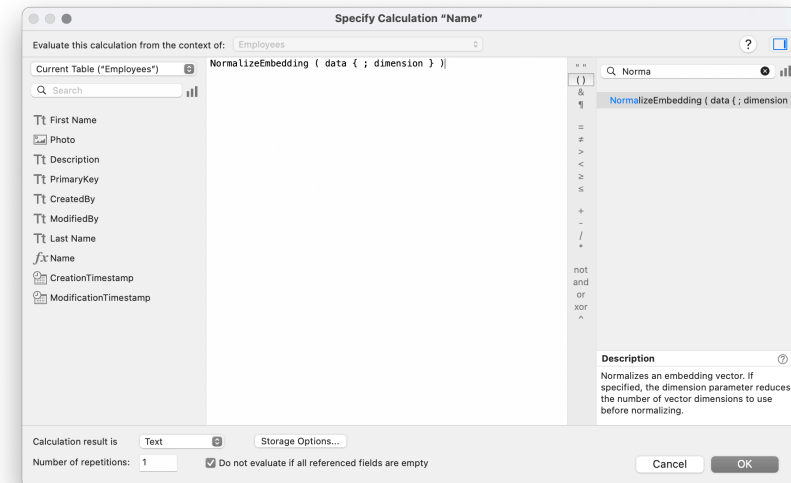
Returns information about the specified RAG space or all RAG spaces, if no space ID is specified. Works with the RAG account created by the Configure RAG Account script step.

### MLRegressionPred

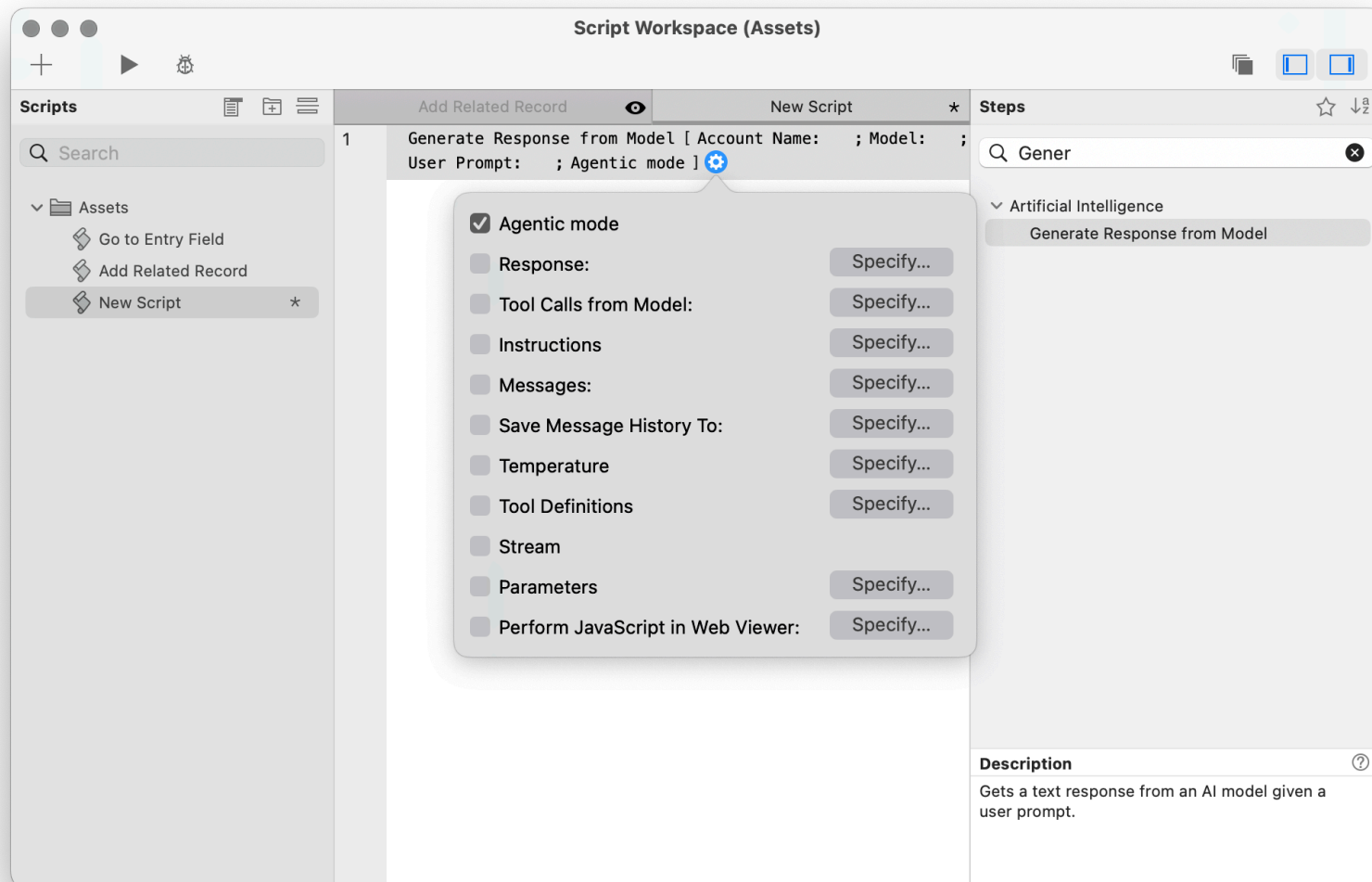
Enables precise predictive analytics within FileMaker by leveraging trained regression models to generate insightful forecasts from embedding vectors.

### PredictFromModel

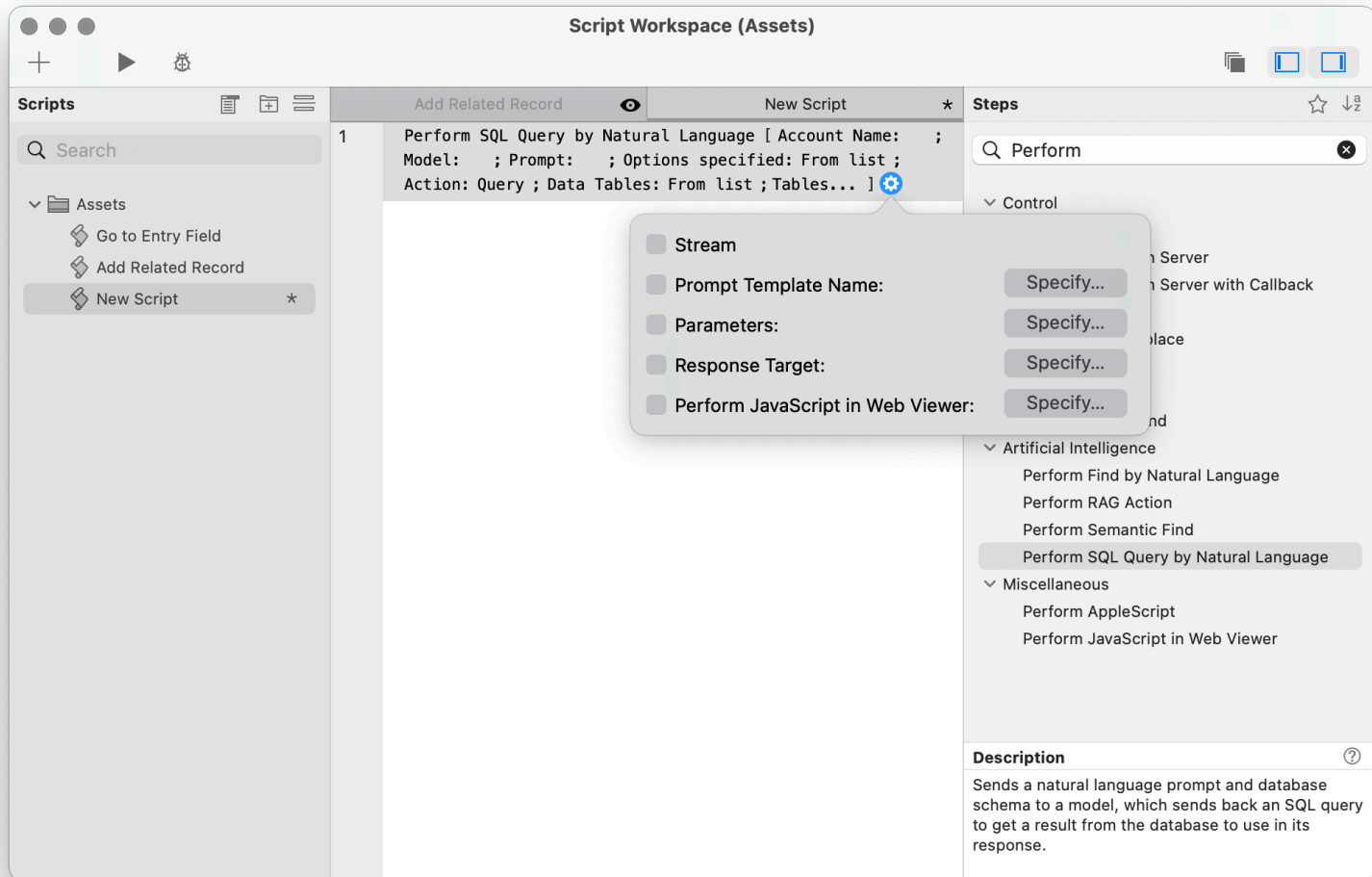
Returns the predicted value from a trained regression model for the specified text embedding vector. Use the Configure Regression Model script step to train and load a model first.



## Generate Response from Model



## Perform SQL Query by Natural Language





## AI Services: Integration of Open Source Models into the Server Admin Console UI

Claris FileMaker Server

Tuesday, June 3, 2025 at 13:55

SERVER

Sign Out

DashboardDatabasesBackupsConfigurationConnectorsAI ServicesAdministrationLogs

AI Services

AI services manage downloading open source models and loading them into memory, perform inference using loaded models, perform retrieval-augmented generation (RAG), fine-tune base models with your own training data, and manage API keys to control access to the Model Server.

Model Server

Keys

Models

Model Server

The AI Model Server performs embedding generation, text and query generation, retrieval-augmented generation (RAG), and fine-tuning without sending your data to third-party model providers.

StatusRunning

Endpointhttps://127.0.0.1/llm/v1/

Hugging Face Tokenhf\_...

Copy

Register

Settings

Services

EmbeddingEnabled

GenerationEnabled

RAGEnabled

Server Configuration

Require API Key for AccessDisabled

Preload ModelsEnabled

Load Previous ModelsDisabled

Log Token UsageDisabled

Preloaded Models

Preloaded Embedding Modelmulti-qa-MiniLM-L6-cos-v1

Preloaded Text Generation ModelNot configured

Show Advanced Settings



## Clarifai FileMaker Pro 2025

### GetFieldsOnLayout function

Returns a list of the fields on a layout as JSON data. Includes only the fields that are accessible to a find. Useful for debugging what field information is sent by the Perform Find by Natural Language script step.

### GetTextFromPDF Calculation Function

Returns the text found in a PDF file in the specified container field. Can be used to include PDF text in finds, add PDF text to a RAG space with the Perform RAG Action script step, or otherwise make it available to AI models.

### Go to List of Records Script Step

Goes to layout and returns found set specified by a list of record IDs. You can provide the record IDs as a list of values separated by carriage returns, a JSON array of record IDs as strings or numbers, or a JSON array of objects with **recordId** keys and values. Record IDs can be obtained using the new GetRecordIDsFromFoundSet function.

### Folders for Custom Functions

Organizes custom functions into folders, enhancing manageability and visibility similar to script and layout folders. Keep your custom functions organized and easier to find.

## GetTextFromPDF Calculation Function

Specify Calculation "Name"

Evaluate this calculation from the context of: Employees

Current Table ("Employees")

Search

First Name

Photo

Description

PrimaryKey

CreatedBy

ModifiedBy

Last Name

fx Name

CreationTimestamp

ModificationTimestamp

GetTextFromPDF ( container )

" "

()

&

||

=

≠

>

<

≥

≤

+

-

/

\*

not

and

or

xor

^

GetT

GetTableDDL ( tableOccurrenceNames ; igr

GetTextFromPDF ( container )

GetThumbnail ( field ; width ; height )

GetTokenCount ( text )

Description

Returns the text found in a PDF file in the specified container field.

Calculation result is Text

Storage Options...

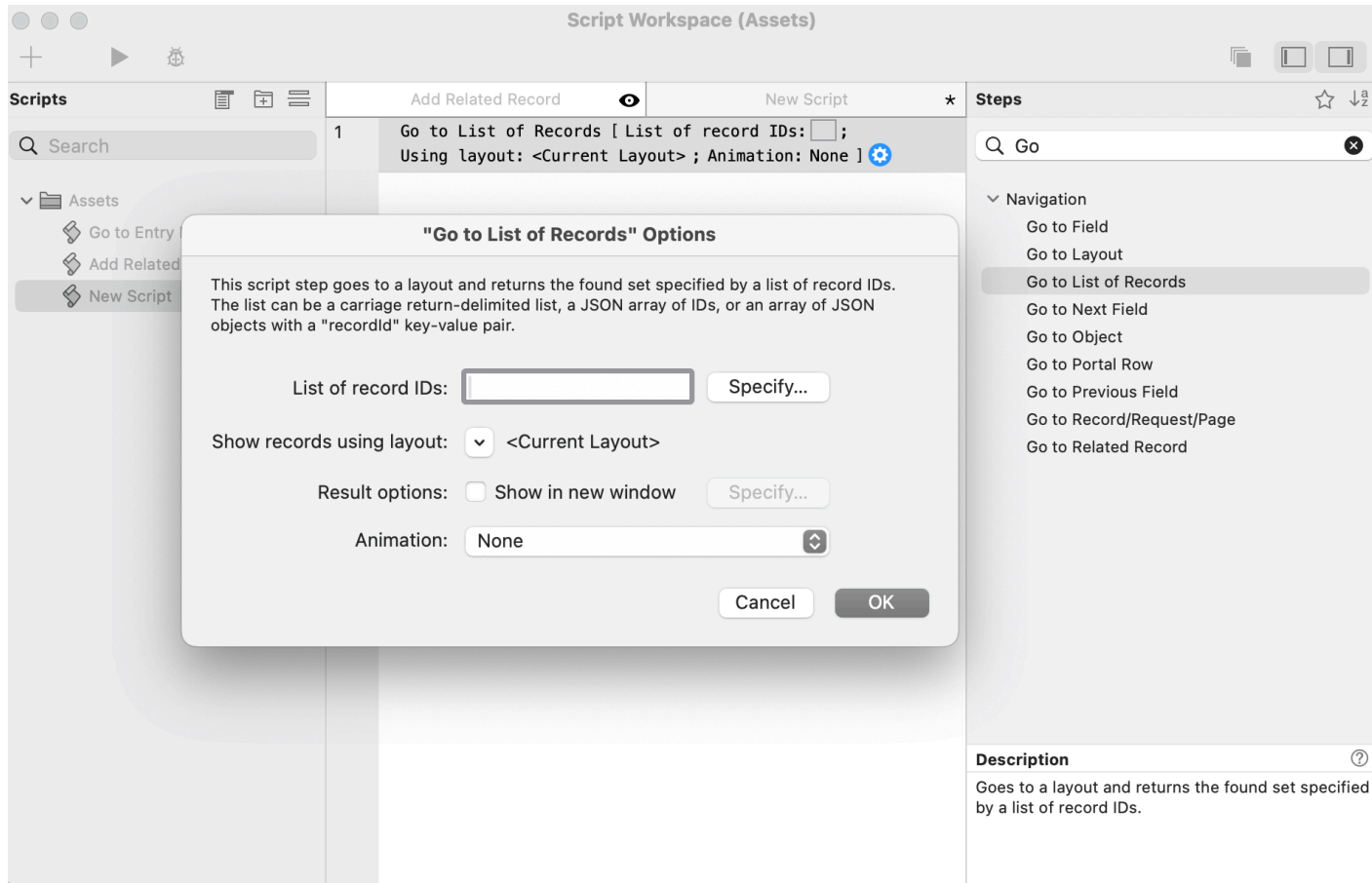
Number of repetitions: 1

☒ Do not evaluate if all referenced fields are empty

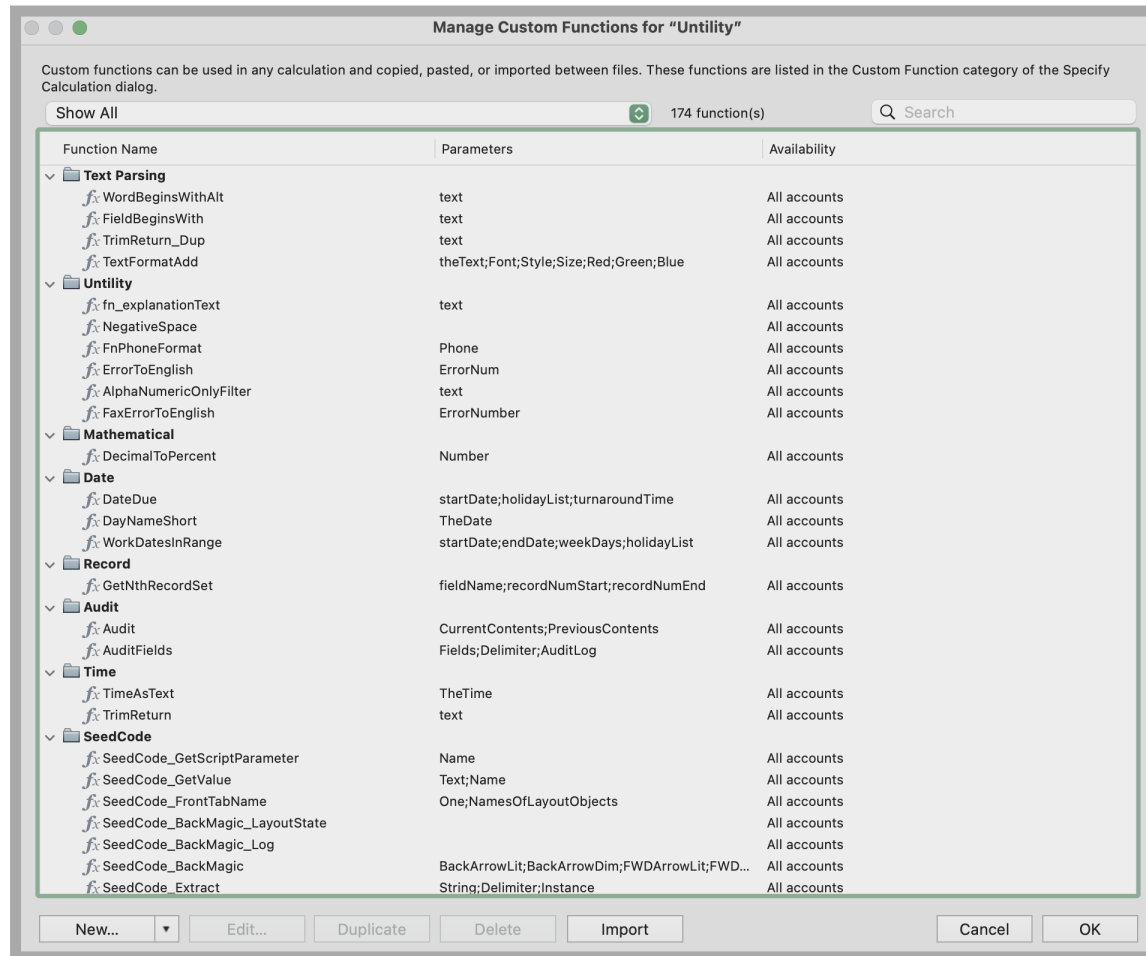
Cancel

OK

## Go to List of Records Script Step



## Folders for Custom Functions







## Claris FileMaker Pro 2025

### Collapse Script Parts

Collapse and expand blocks of control script steps (for example, `If`, `Loop`, and `Open Transaction`) to provide a better overview of complex scripts.

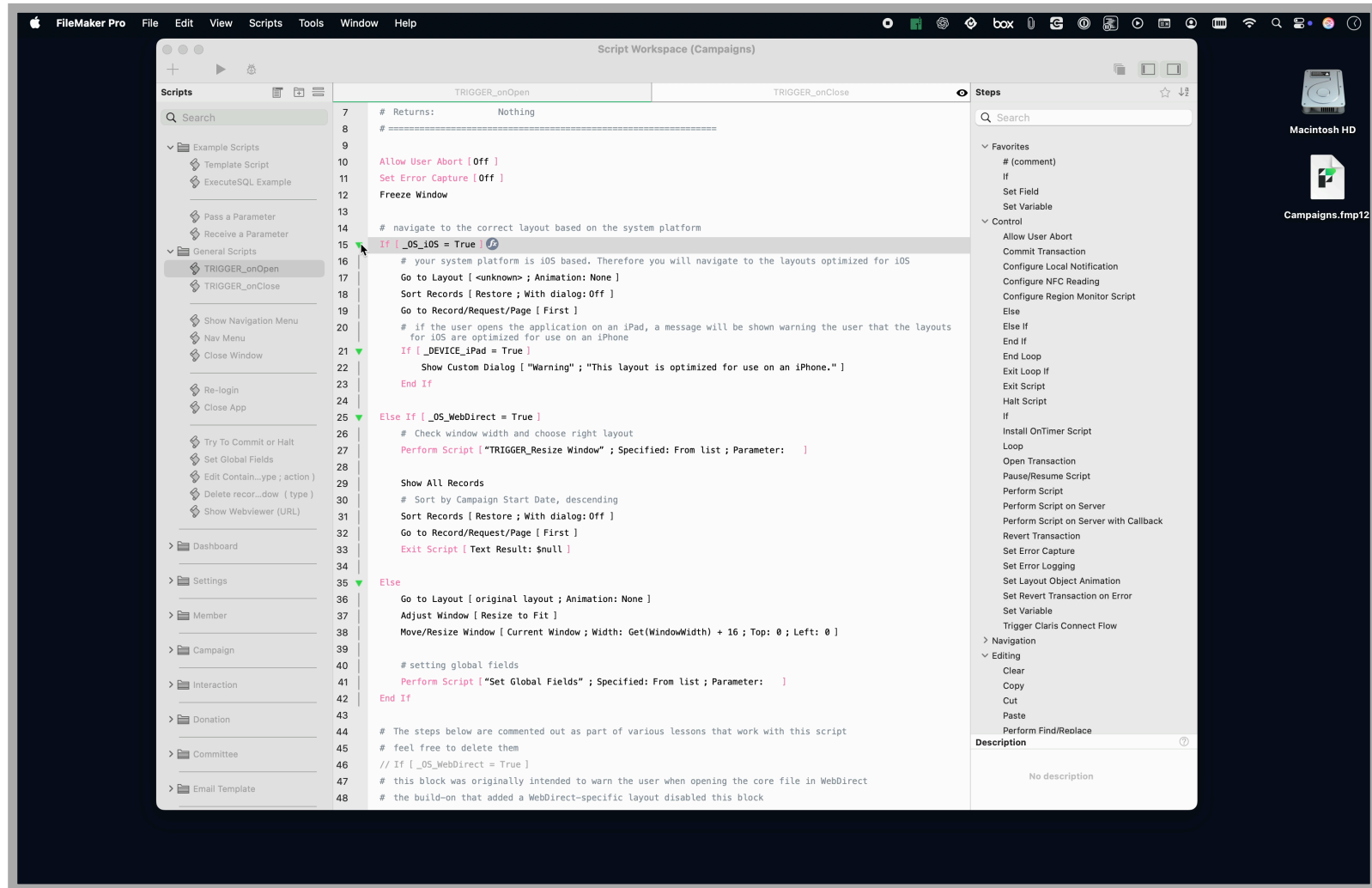
### macOS UI Refresh

A user interface overhaul aimed at modernizing FileMaker Pro's appearance and functionality on macOS, focusing on improving the developer and end-user experience.

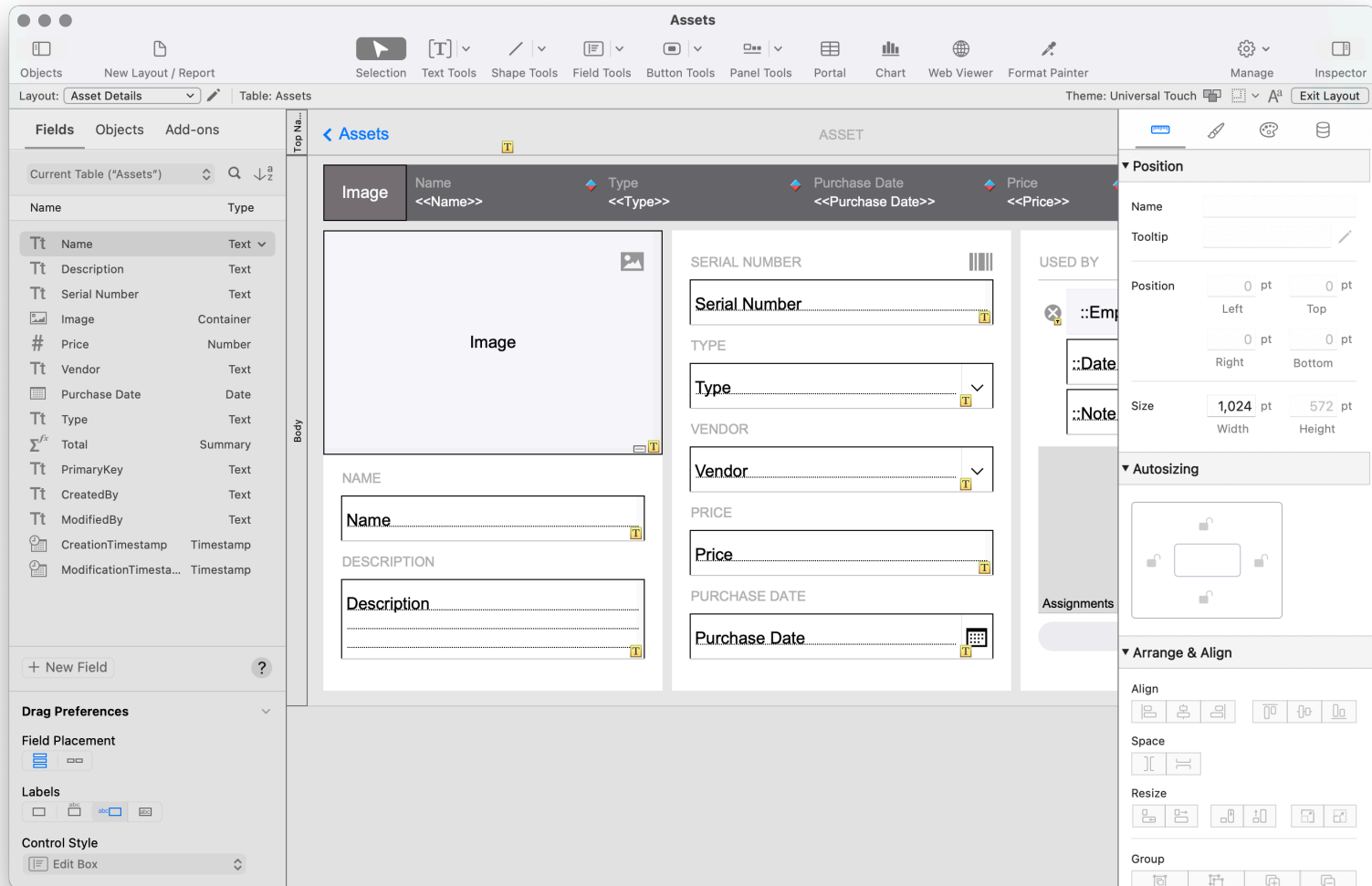
### Add/Remove Object to group

Add objects to existing groups by selecting both the group and the object to be added without needing to ungroup first, streamlining the process of organizing layout objects.

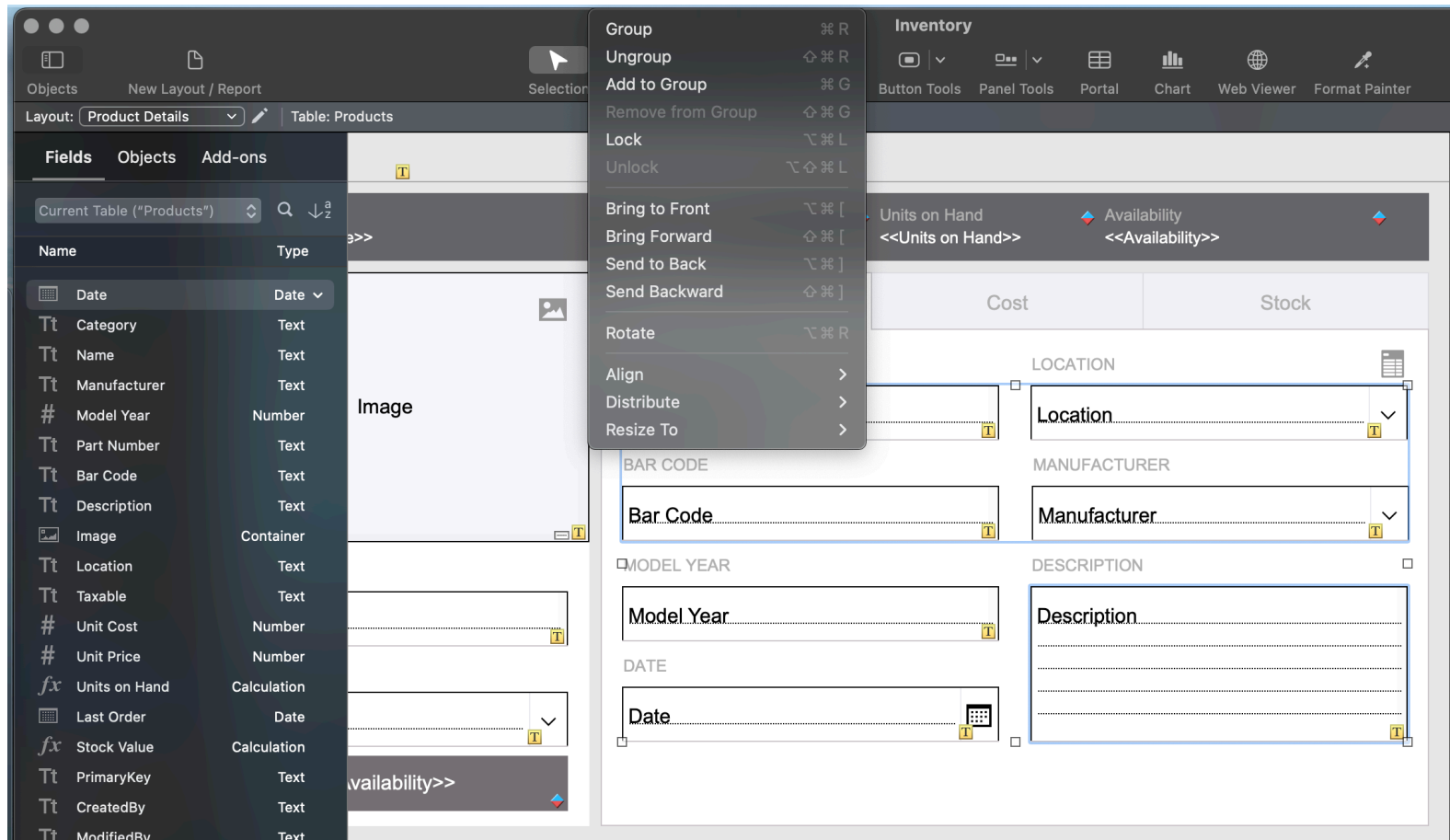
## Collapse Script Parts



# macOS UI Refresh



## Add/Remove Object to group





## Clarif FileMaker Pro 2025 —New Functions

### **GetRecordIDsFromFoundSet**

Returns record IDs from the current found set as a list or a JSON array. The record IDs can optionally be returned as values and ranges of values. The output can be used with the new Go to List of Records script step.

### **JSONParse**

Parses text as JSON data and keeps the parsed JSON representation in memory for you to reuse with other JSON functions. You can significantly improve performance of JSON calculations that reuse the same JSON data many times by using this function first, for example, to store the result in a variable:

```
Set Variable [ $json ; Value: JSONParse ( "[3]" ) ]
```

### **JSONParsedState**

Examines the input passed into it to determine whether it has parsed JSON data as part of it (that is, JSON data previously parsed by the JSONParse function). The function returns 0 if JSON is not parsed, -1 if parsed but invalid, or a positive number representing the JSON type if parsed and valid.





## Claris FileMaker Pro 2025

### Upgrade to major releases using Check for Updates

FileMaker Pro 2025 is the first major release that you can upgrade to from the latest version of the previous major release (FileMaker Pro 2024) by clicking Help > Check for Updates or when the Software Update dialog opens when you start FileMaker Pro, if you have an eligible license.

**Windows:** Previously, major FileMaker Pro releases were installed alongside any previous versions you had installed. Starting with FileMaker Pro 2025, installing the latest major version of FileMaker Pro replaces the previous version.

### Save a Copy as XML

When a FileMaker Pro file is saved using Save a Copy as XML, the root FMSaveAsXML element of the XML file now includes a Has\_DDR\_INFO attribute that's set to True when the Include details for analysis tools option is selected. This attribute allows analysis tools to quickly determine whether the file includes the DDR\_INFO element containing additional information without parsing the entire file.



## Clarifai FileMaker Server 2025

**Now runs on both Ubuntu 24 & Ubuntu 22 enabling faster, cost-effective deployment.**

### Improved JSON Performance

Parsed JSON structures are now cached in **DBData**, reducing repeated parsing and significantly boosting performance. **Note:** these JSON performance enhancements also apply to FileMaker Pro and FileMaker Go.

### Upgrade Tool Enhancements

Supports patching scripts, relationships, themes, and more, improving upgrade flexibility. Includes layout objects and field format options, streamlining data structure upgrades. Upgrade tool now bundled with FileMaker Server eliminates standalone downloads.

### Performance Improvements

Addresses memory leaks by optimizing script execution threads, improving server responsiveness and stability during high-load scenarios, improving parallel task handling, reducing memory leaks, and boosting scalability.



## Clarifai FileMaker Server 2025

### Improved Send Thread Pool

You handle more concurrent users smoothly because FileMaker Server manages connections more efficiently.

### FAC/Admin API Enhancements

Admin Console includes functionality to flush database pages to disk.. You can set the the number of FileMaker Script Engine (FMSE) sessions that are allowed to run simultaneously through Admin Console allowing administrators to optimize performance based on CPU-bound or I/O-bound workloads.

### Let's Encrypt Integration


FileMaker Server's Let's Encrypt SSL integration offers comprehensive management through the Admin Console, eliminating command-line needs. Enhanced security includes restricted port 80 access during verification and automated renewals for both primary and secondary machines, streamlining certificate handling across deployments. This setup simplifies operations while bolstering security for administrators.

## FAC/Admin API Enhancements

Claris FileMaker Server

Tuesday, June 3, 2025 at 14:31

SERVER


 1




Sign Out

DashboardDatabasesBackupsConfigurationConnectorsAI ServicesAdministrationLogs

Databases

Sort by **Filename** ▾

 All Databases ▾ (1)

  **FMServer\_Sample** 0 Clients 

Open

Pause

Close

Download

Remove

Verify

Flush

Clear Encryption Password

Clients

Disconnect

Send Message

Sort by **Session Identifier** ▾


<input type="checkbox"/>	Session Identifier	Account Name	Host Name / IP Address	Sign-in	Client
No clients are connected.					

# Let's Encrypt Integration

Claris FileMaker Server

Tuesday, June 3, 2025 at 14:32

SERVER

 1

Sign Out

DashboardDatabasesBackupsConfigurationConnectorsAI ServicesAdministrationLogs

Configuration

Click the tabs below to specify configuration settings.

General Settings

FileMaker Clients

Folders

Schedules

Notifications

SSL Certificate

SSL Certificate

The Claris default certificate is intended only for test purposes. Use a custom SSL certificate for data security. Either request a custom certificate from the automated certificate authority (CA) Let's Encrypt, or import the custom certificate that you obtained from another CA. To remove files from a prior import, click Delete Files.

Create CSR

Request Let's Encrypt Certificate

Import Custom Certificate

Delete Files

Certificate Information

Status	Certificate installed
Issued To	Claris Self Signed Certificate (Not for Production Use)
Issued By	Claris Root Authority
Expires ?	2026-05-30 18:50:54 UTC

Certificate Details

## Let's Encrypt Integration

×

### Request Let's Encrypt Certificate

Let's Encrypt is an automated certificate authority that provides free SSL certificates for TLS encryption. To create the certificate signing request for generating a Let's Encrypt certificate, enter the following information:

Note: The domain must be publicly accessible through port 80 during Let's Encrypt HTTP validation. Wildcards are not supported.

Domain Name \*

example.com

Automatically Renew Certificate ⓘ Disabled

Request

Test Validation

Cancel

Issued By

Clarix Root Authority



## Claris FileMaker Go 2025

### Keyboard Navigation Support

Enhances accessibility and usability by supporting keyboard navigation via arrow keys and the Space/Enter key for layout object navigation in FileMaker Go.

### Hover State Support

Introduces hover effects for various layout objects similar to what is available using visionOS, enhancing user interaction by providing visual feedback when hovering over elements like text, buttons, fields, and more.

### **Manage FileMaker Go files in the Files app**

FileMaker Go files on device are now visible in the Files app, allowing access without starting FileMaker Go first. This provides an alternative way to share and access files on device.

### **iOS18.4 and iPadOS 18.4 Support**

You deliver your apps to mobile users on day one because FileMaker Go works with the latest iOS and iPadOS.



## Clarifai FileMaker WebDirect 2025

### Right-Click Context Menu

Right-click contextual menus are supported, allowing users to access common operations like copy and paste directly from the context menu.

### Custom Homepage Configuration

Admin API includes endpoints for managing the Custom Homepage settings, allowing you to enable, disable, and configure custom home URLs programmatically. The Custom Homepage option is available in Admin Console, allowing you to configure custom home URLs.

### Browser Back Button Warning

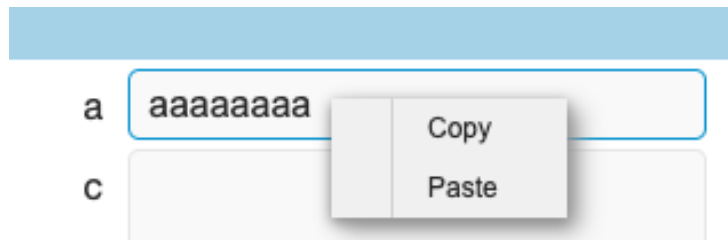
Warning dialog is displayed when users attempt to click the browser's Back or Forward buttons, closing the tab or window, reloading the page, or navigating away by clicking a link, helping prevent accidental session termination and providing a more intuitive user experience.

### Performance Improvements

Optimization fixes for FileMaker Server, particularly addressing performance degradation on secondary machines in multi-machine deployments. Supports higher concurrency (500–1,000 users).



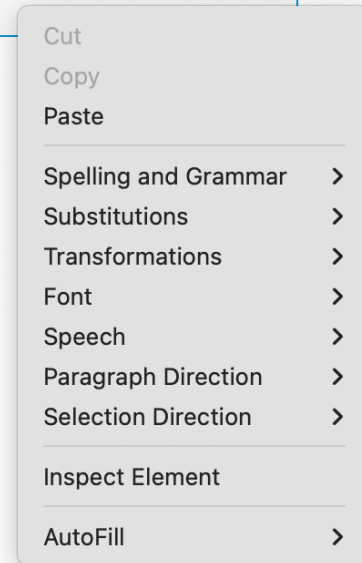
## Right-Click Context Menu



Field 3 2024/10/31

Field 2


adfgadfa



## Custom Homepage Configuration

Claris FileMaker Server

Tuesday, June 3, 2025 at 14:36 SERVER

 1

Sign Out

DashboardDatabasesBackupsConfigurationConnectorsAI ServicesAdministrationLogs

Connectors

Connectors retrieve data, update data, or add features to hosted databases. Click the tabs below to specify configuration settings for connectors.

Web Publishing

FileMaker Data API

Plug-ins

ODBC / JDBC

Web Publishing

Claris FileMaker WebDirect

FileMaker WebDirectEnabled

Launch Center URLhttp://127.0.0.1/fmi/webdOpen Launch Center

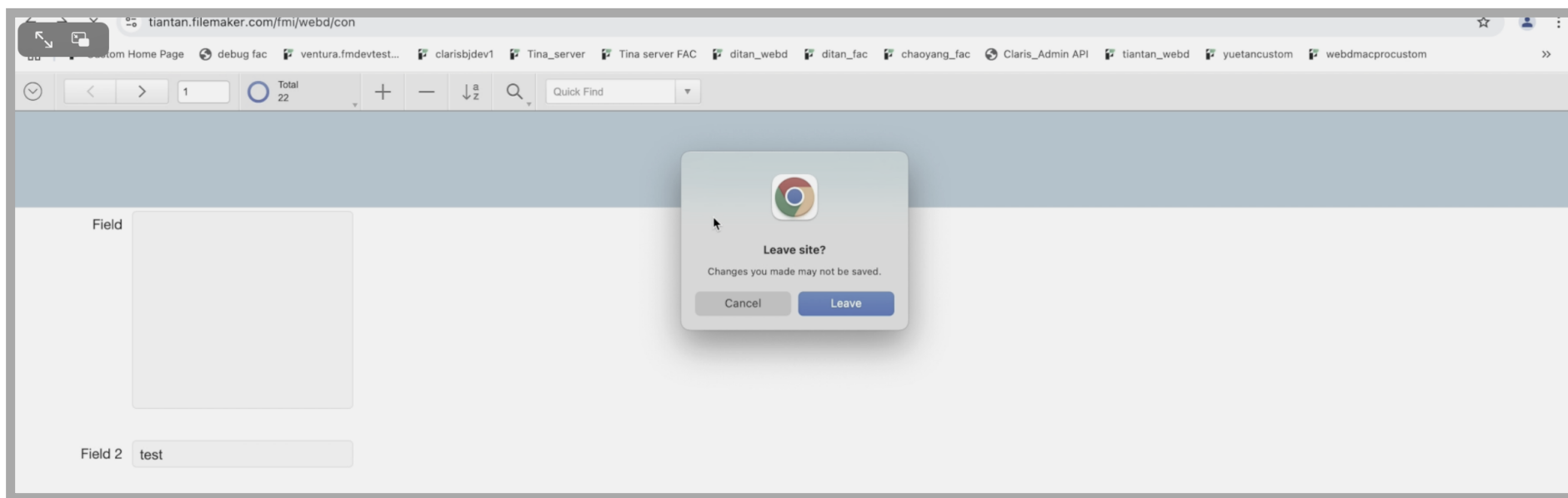
Nginx Load Balancer URL ⓘChange

Custom HomepageEnabled

Custom Home URL ⓘhttps://www.example.com

SaveCancel

## Browser Back Button Warning





## Claris FileMaker APIs

### Data API Client Session Validation

Introduction of a client session validation endpoint to provide session status, enhancing scripting and integration capabilities.

### WebHook Support in FileMaker OData API

WebHook notifications for record and schema changes in FileMaker databases, enabling real-time updates to Claris Studio and Claris Connect.



# FileMaker Cloud Enhancements for FileMaker 2025

**Supports FileMaker 2025 features across Pro, Server, Go, WebDirect, and APIs.**

## **New features and enhancements**

### **Local time zone support system-wide**

- To make all time-based operations more intuitive to manage, you can now set your instance to use the local time zone instead of UTC. Enabling this option affects script schedules, backups, logs, as well as auto maintenance.
- You can switch between the local time zone and UTC at any time. However, switching requires you to restart your instance. The change affects when existing schedules are run, so you may need to adjust when they start or end, and it may affect FileMaker scripts that use the host's current date or time in calculations.
- In Admin Console on the Configuration > General Settings tab under System Time Zone, enable Use Local Time Zone for System.

### **Schedule maintenance**

- When you sign in to Admin Console, authentication tokens for any script schedules you have full access to are now automatically refreshed. This eliminates the need to manually update each schedule when tokens expire, ensuring your schedules continue to run uninterrupted.
- For script schedules with authentication tokens created by other team managers, Admin Console now notifies you 60 days before those tokens expire, in case the other team managers don't sign in soon enough to automatically refresh their tokens. If you have full access to the schedule, you can update the token yourself—go to the schedule, click Edit, then Save (no changes necessary). Otherwise, you can ask the other team manager (specified in the notification) to sign in.



# **FileMaker Cloud Enhancements for FileMaker 2025**

## **New features and enhancements**

### **FileMaker WebDirect**

- FileMaker WebDirect session timeouts can now be set to a maximum of 180 minutes instead of the previous maximum of 60 minutes.

### **Security improvements**

- To enhance security, Node.js has been updated to version 22.14.0.

### **FileMaker Cloud availability**

- FileMaker Cloud that supports FileMaker 2025 release will be available after launch of FileMaker 2025, expected in August 2025. This version will be required to experience Claris Studio/Connect to support FileMaker data sources in Claris Studio.



## **FileMaker 2025: Claris Studio – Built for Scale, Security, and the Web**

### **FileMaker data sources in Claris Studio**

Easily display and update FileMaker data via Claris Studio views, extending your FileMaker Pro custom app to external stakeholders on the web.

### **Augmented by these recent updates to Claris Studio**

- **Built to Handle Big Data**

Studio custom views now support large record sets (100,000+), letting developers confidently build performant solutions for data-heavy industries like healthcare, logistics, and education.

- **Secure by Design**

Access control is now enforced across Studio hubs and views, even down to the record level. Only users granted access can see specific data—ensuring developers can safely deploy secure, role-based solutions.

- **Enables Customer Web Portals**

With enhanced custom views in Studio with enhancements above, developers can build branded, interactive web portals for clients—no complex coding, no third-party hosting.

**Along with the release of FileMaker 2025, Claris Studio becomes the developer's go-to for web-native, secure, and scalable user experiences—tightly integrated with the FileMaker solutions they already have.**

[Home](#)
[Overview of Clarix Studio](#)
[What's new in Clarix Studio](#)
[Work with data sources](#)
[Field mappings](#)
[Quick start](#)
[Views](#)
[Custom views](#)
[Team management](#)


## Work with data sources

### Overview

Clarix Studio allows you to work with both native Clarix Studio tables and external FileMaker data sources. This integration enables you to leverage your existing FileMaker data—your source of truth—within Clarix Studio.

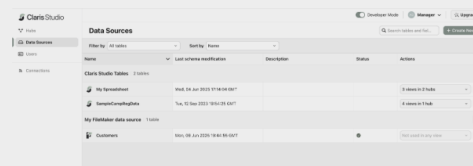
#### Important

To access FileMaker custom apps via Clarix Studio, enable both the FileMaker Data API (fmrest) and OData (fmodata) extended privileges for the privilege set used by the accounts accessing your target app. For example, if your account uses the Full Access privilege set, the fmrest and fmodata extended privileges need to be enabled for the Full Access privilege set for that app for your account to be able to connect to the hosted file from Clarix Studio.

Additionally, enable these APIs in the Connectors tab of your FileMaker Server Admin Console or FileMaker Cloud Admin Console.

### Accessing the Data Sources tab

The **Data Sources** tab provides a central location to manage all your data connections, whether they are native Clarix Studio tables or external FileMaker data sources.



### Creating new data sources

From the **Data Sources** tab, click + **Create New** to choose from two options:

1. **Create New Clarix Studio Table** - Creates a native Clarix Studio table and takes you directly to the table view.
2. **Create New Data Source** - Connects to an external FileMaker data source.





## **FileMaker 2025: Simpler Licensing. Seamless Platform.**

### **Unified Claris Platform Access – No Requests Required**

With the FileMaker 2025 license, eligible customers can now self-provision Claris Studio and Claris Connect—no more manual access requests or workarounds.

### **Transparent Usage, Right Inside the Product**

In-product metering makes it easy to understand what's included in your tier—like how many Studio views are shared—and when it's time to upgrade.

### **Seamless Integration Across Products**

Connect FileMaker and Studio like never before. Sync data and schema, automate workflows, and build unified web + client solutions—all without leaving the platform.

### **Why This Matters to Developers**

Now developers can focus on building solutions, not managing access. They get a clear picture of what's included in their license, gain automatic access to the full platform, and delivers scalable, modern experiences across web and client.

*One license. One platform. One seamless development experience.*



# FileMaker 2025: Evolve with Confidence

## AI-Powered Innovation

*Your data's already in FileMaker. Now AI is too*

- Seamlessly integrate AI with existing data.
- No new platform or licensing costs.
- Simplify AI adoption with familiar tools.

## Strengthened Core & Integration

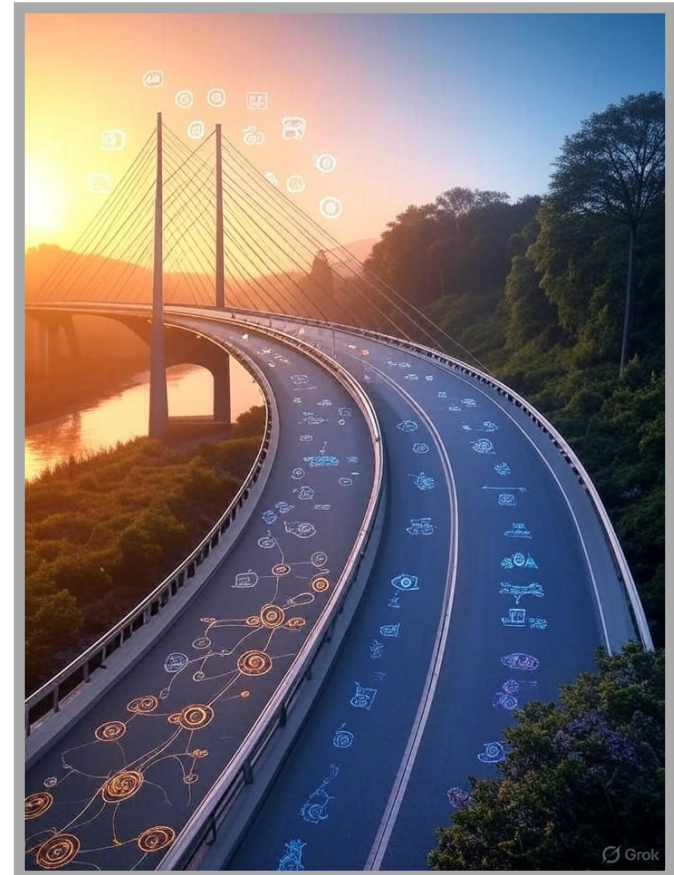
*Smarter tools, same foundation*

- Core FileMaker tools continually enhanced.
- Deeper integration with Claris Studio & Connect.
- Modern workflows meet robust integrations.

## Empowered Developer Journey

*Support that actually supports—docs, quick starts, and real people*

- Rich developer resources & community support.
- Guided learning for faster innovation.
- Build smarter solutions, quicker.



## Claris-hosted Community Live event during launch week

- **July 9** - New AI features in FM 2025 —[Register now](#)
- **July 10** - AI services in FileMaker Server —[Register now](#)
- **July 14** - FileMaker data sources in Claris Studio —[Register now](#)
- **July 15** - Under the Hood —for the remainder of FileMaker 2025 —[Register now](#)



# Claris FileMaker 2025

Major Enhancements Details

# Generate Response from Model in FileMaker 2025

[< Return](#)

## Overview

Empowers developers to craft bespoke interactions with language models by customizing prompts and function calls directly within FileMaker scripts. The Generate Response from Model feature in FileMaker 2025 allows developers to interact with AI models to obtain text responses based on user prompts. This feature extends FileMaker's capabilities in integrating AI-driven content generation into custom solutions.

## Key Components

- **AI Model Interaction:** Sends user-defined prompts to AI models to generate relevant text outputs.
- **Flexible Data Handling:** Supports input from both text and container fields, with outputs stored appropriately based on field type.

## How It Works

- **Prompt Submission:** Developers provide a text or container input that the AI model processes to generate a textual response.
- **Response Handling:** The generated text is then stored in a specified field or variable.

## Developer Benefits

- **Enhanced Content Generation**
  - Easily integrate AI-generated text into applications for dynamic content creation, such as automated reports, personalized user communications, or creative writing aids.
- **Improved Data Integration**
  - By converting various input types into embedding vectors, developers can leverage advanced AI functionalities like semantic searching and clustering within FileMaker solutions.
- **Optimized Storage and Performance**
  - Storing embedding vectors as binary data in container fields reduces storage size and can enhance performance for operations involving vector data.
- **Expanded Workflow Automation**
  - Combine with other AI-related script steps for comprehensive workflows that include both data processing and generative tasks, streamlining complex operations.
- **Cross-Platform Compatibility**
  - Supported across all FileMaker platforms, ensuring consistent behavior whether in Pro, Go, WebDirect, or Server environments.

## Use Cases

- Automating customer support responses by generating replies based on incoming queries.
- Creating dynamic document templates where AI crafts sections of text based on user inputs or database contents.
- Enhancing data analysis tools by embedding AI-generated insights or summaries directly into reports.

In summary, this feature provides unparalleled flexibility in leveraging LLM capabilities, enabling tailored user experiences and streamlined workflows. By integrating customizable prompts and advanced tool calls, developers can enhance application interactivity and intelligence, meeting precise business requirements with ease.



# Perform SQL Query by Natural Language in FileMaker 2025

[< Return](#)

## Overview

This new feature in FileMaker 2025 allows developers to execute SQL queries in their databases using natural language prompts instead of manually writing SQL statements. It leverages AI models to interpret user queries, generate corresponding SQL, execute these queries -all without transferring actual database data to the AI model. And if you want, you can choose to sent the data to the model to get a natural language response.

## Key Components

- **AI Integration:** Utilizes external AI models to translate natural language into SQL.
- **Script Step Configuration:** Offers flexible options for specifying prompts, models, database schema, and response handling.
- **Debugging Tools:** Provides various actions to retrieve intermediate SQL queries and schema representations for testing and refinement.

## How It Works

- **Prompt & Schema Transmission:** Sends the user's natural language prompt along with selected database schema details to the AI model.
- **SQL Generation & Execution:** The model interprets the prompt, generates SQL queries, and these are executed against the FileMaker database.
- **Result Processing:** The query results are fed back into the model for final response generation, which is then stored in FileMaker fields or variables.

## Developer Benefits

- **Accessibility to Non-SQL Users**
  - Simplifies database interactions for stakeholders unfamiliar with SQL, broadening the user base capable of performing complex queries.
- **Rapid Prototyping**
  - Accelerates development cycles by allowing quick iterations of query formulations and immediate feedback without deep SQL expertise.
- **Enhanced User Experience**
  - Enables more intuitive and conversational interactions with databases, potentially increasing end-user satisfaction and engagement.
- **Flexibility and Control**
  - Offers multiple configuration options (e.g., specifying tables, response streaming, debugging modes) granting developers control over AI interactions and output.
- **Security**
  - Since no actual data leaves the FileMaker environment for processing by the AI, it maintains data privacy and security standards.
- **Integration Opportunities**
  - Can be combined with other FileMaker features like Web Viewers and JavaScript for extended functionality, such as displaying dynamic, AI-generated content.

## Use Cases

- Empowering business users to extract insights directly through conversational queries.
- Creating dynamic dashboards that adapt based on user-defined questions without predefined reports.
- Streamlining administrative tasks that traditionally required database specialization.

In summary, this feature bridges the gap between complex database querying and user-friendly interaction, making it a valuable tool for developers aiming to enhance the usability and accessibility of their FileMaker solutions.

# Perform Find by Natural Language in FileMaker 2025

[< Return](#)

## Overview

The Perform Find by Natural Language feature in FileMaker 2025 enables users to execute find requests using natural language prompts instead of traditional find criteria. By leveraging AI models, this feature interprets user inputs and dynamically generates corresponding FileMaker find requests, streamlining data retrieval processes.

## Key Components

- **AI-Driven Interpretation:** Converts natural language into actionable FileMaker find requests.
- **Flexible Response Options:** Offers various modes for handling find results, including updating the found set or returning data as JSON.
- **Layout-Aware Functionality:** Utilizes fields available on the current layout to tailor find requests accurately.

## How It Works

- **Prompt & Layout Analysis:** Sends the natural language prompt along with details of accessible fields from the current layout to the AI model.
- **Find Request Generation:** The model processes the input to create a suitable FileMaker find request, considering specified fields and any additional context.
- **Execute & Respond:** Based on selected options, the find request is either executed to update the found set or returned in JSON format for further processing, without altering the current dataset.

## Developer Benefits

- **Simplified User Interactions**
  - Allows end-users to perform complex searches using everyday language, reducing the need for technical know-how and enhancing user engagement.
- **Rapid Development**
  - Cuts down development time by eliminating the manual setup of find criteria, enabling quicker deployment of robust search functionalities.
- **Increased Accessibility**
  - Expands the applicability of FileMaker solutions across diverse user groups, including those less familiar with database structures.
- **Multilingual Capability**
  - Supports searches in multiple languages, broadening the usability of solutions in global contexts.
- **Enhanced Debugging and Control**
  - Provides options to inspect generated find requests in JSON format, aiding debugging and fine-tuning of AI-driven interactions.
- **Seamless Integration**
  - Fits into existing FileMaker workflows and can be combined with other scripting and data handling features for comprehensive solutions.
- **Use Cases**
  - Empowering non-technical staff to quickly locate records using intuitive language queries.
  - Building adaptable interfaces for industries where rapid data access via varied search terms is crucial, such as customer support or logistics.
  - Creating applications that support multilingual environments without complex query adjustments.

In summary, the Perform Find by Natural Language feature significantly enhances FileMaker's usability by leveraging AI to translate natural language into precise find operations, making databases more accessible and interactive for all users.

# Configure Prompt Template in FileMaker 2025

[< Return](#)

## Overview

The Configure Prompt Template feature in FileMaker 2025 allows developers to define reusable prompt templates for AI operations involving natural language processing. These templates streamline the configuration of AI script steps by encapsulating predefined prompts and associated parameters, which can be easily referenced across solutions.

## Key Components

- **Template Customization:** Offers flexibility to tailor prompts and conditions based on specific use cases, such as querying by natural language or vector data.
- **Parameter Integration:** Supports integration with various parameters to refine AI operations, including similarity thresholds and result constraints.

## How It Works

- **Template Definition:** Developers configure templates specifying query modes, search criteria, target fields, and similarity conditions via script steps.
- **Template Reuse:** Once defined, these templates can be applied across multiple AI-related script steps, ensuring consistency and reducing setup time.

## Developer Benefits

- **Efficiency and Consistency**
  - Eliminates repetitive configuration efforts by reusing templates, ensuring uniform prompt handling across different parts of a solution or multiple solutions.
- **Enhanced Customization**
  - Facilitates fine-tuned AI interactions by allowing detailed prompt specifications, including natural language queries and vector-based similarity searches.
- **Improved Maintainability**
  - Simplifies updates and modifications; changes to prompt logic or parameters are made centrally within the template and automatically reflected wherever the template is used.
- **Expanded AI Capabilities**
  - Supports advanced search functionalities, such as semantic similarity matching for both text and images, broadening the scope of AI applications within FileMaker solutions.
- **Streamlined Multilingual and Complex Searches**
  - By configuring templates with specific models and parameters, developers can easily manage complex search criteria, including multilingual operations and cosine similarity thresholds.
- **Optimized Performance**
  - Using precomputed embedding vectors and tailored search parameters can enhance performance, particularly for frequently executed queries.
- **Use Cases**
  - Creating sophisticated search interfaces that return semantically relevant results beyond simple keyword matching.
  - Building applications for image recognition and retrieval where descriptions or vector embeddings define search criteria.
  - Enabling advanced natural language interactions in multilingual environments with consistent and controlled AI prompt handling.

In summary, the Configure Prompt Template feature empowers FileMaker developers to harness AI more effectively by providing a structured, reusable approach to prompt management, enhancing both development speed and application robustness.



# Configure Regression Model in FileMaker 2025

[< Return](#)

## Overview

The Configure Regression Model feature in FileMaker 2025 introduces the ability to train, save, load, and unload regression models directly within FileMaker solutions. This feature leverages embedding vectors derived from text data alongside numeric target values to facilitate predictive analytics and regression tasks.

## Key Components

- **Model Management:** Comprehensive tools for handling regression models throughout their lifecycle—from training to deployment and removal.
- **Data Integration:** Utilizes embedding vectors and numeric data for creating predictive models, applicable to a wide range of analytical scenarios.

## How It Works

- **Training:** Develop regression models using embedding vectors generated from text data paired with corresponding numeric target values.
- **Model Persistence:** Save and load models for reuse across different sessions or solutions, ensuring continuity and efficiency in predictive tasks.
- **Unloading:** Remove models from memory when they are no longer needed, optimizing resource usage.

## Developer Benefits

- **Enhanced Predictive Analytics**
  - Directly integrate regression modeling capabilities into FileMaker solutions, enabling developers to build sophisticated predictive tools without needing external software.
- **Streamlined Workflow**
  - Simplify the process of managing regression models within a single platform, reducing the complexity of data pipelines and improving development efficiency.
- **Customizable and Flexible**
  - Tailor regression models to specific datasets and analytical needs, providing precise predictions and insights based on unique organizational data.
- **Resource Optimization**
  - Load and unload models dynamically to manage memory and computational resources effectively, ensuring optimal performance even with extensive datasets.
- **Expanded Data Utility**
  - By combining text embeddings with numeric targets, developers can explore new analytical dimensions, such as sentiment analysis with predicted outcomes or trend forecasting based on textual inputs.
- **Use Cases**
  - Building financial forecasting tools that predict numeric outcomes based on textual reports or market sentiment analyses.
  - Creating customer behavior models that estimate purchase likelihoods or churn rates from customer feedback and interaction data.
  - Developing predictive maintenance systems that forecast equipment failures based on textual logs and sensor readings.

In summary, the Configure Regression Model feature equips FileMaker developers with powerful tools to perform advanced predictive analytics directly within their applications, fostering innovation and deeper data-driven decision-making capabilities.

# Perform RAG Action in FileMaker 2025

[< Return](#)

## Overview

The Perform RAG Action feature in FileMaker 2025 facilitates interaction with Retrieval-Augmented Generation (RAG) spaces on AI model servers. This capability allows developers to manage prompts and data within these spaces, enhancing the contextual understanding and response quality of AI models used in FileMaker solutions.

## Key Components

- **RAG Space Management:** Enables sending prompts to, and modifying data within, RAG spaces linked to specified AI model servers.
- **AI Account Configuration:** Provides flexible setup options for connecting to various model providers, including custom endpoints.

## How It Works

- **Account Setup:** Define an AI account configuration specifying the model provider and authentication details, which can be reused across multiple AI script steps.
- **RAG Interaction:** Execute actions to interact with RAG spaces, leveraging the configured account to send prompts or update data, enhancing model responses with contextual information.

## Developer Benefits

- **Contextual AI Enhancements**
  - Improve AI model responses by augmenting them with relevant retrieved information from RAG spaces, leading to more accurate and context-aware outputs.
- **Flexible Integration**
  - Support for predefined and custom model providers allows seamless integration with a wide range of AI services, accommodating diverse organizational needs and preferences.
- **Improved Data Handling**
  - Efficiently manage dynamic data inputs and outputs within AI workflows, facilitating advanced applications like contextual chatbots or intelligent document processing systems.
- **Simplified Configuration Management**
  - Centralized AI account management reduces configuration redundancy and simplifies script development, making it easier to maintain and update AI interactions.
- **Customization and Control**
  - Options for custom endpoints and SSL certificate verification offer tailored security and connectivity settings, aligning with specific deployment requirements.

## Use Cases

- Developing intelligent customer support systems that retrieve and utilize contextual information to enhance user interactions.
- Creating advanced research tools that augment AI-generated insights with up-to-date or domain-specific data from organizational repositories.
- Building conversational agents that maintain context over extended dialogues by leveraging dynamically updated RAG spaces.

In summary, the Perform RAG Action feature empowers FileMaker developers to harness the full potential of Retrieval-Augmented Generation, delivering richer, more contextually aware AI-driven functionalities within their custom solutions.

# Improving Semantic Search and Vector Embedding Functionality in FileMaker 2025

[< Return](#)

## Overview

FileMaker 2025 introduces several enhancements to semantic search and vector embedding capabilities, enabling more sophisticated data analysis and retrieval options. These improvements aim to streamline operations involving text and image data, offering developers greater flexibility and control.

## Key Enhancements

- **Bulk Embedding Improvements**
  - **Summary Dialog:** Displays a summary after bulk embedding operations, providing insights into the process outcome, such as success rates or errors encountered.
  - **Continue on Error:** Allows the bulk embedding process to proceed despite individual errors, ensuring partial data processing and improving workflow robustness.
- **Image Support for Semantic Search**
  - Enables semantic search capabilities on images, allowing users to find visually similar images or search using natural language descriptions of image content.
- **New Vector Functions**
  - **Vector Normalization:** Ensures vectors are on a consistent scale, crucial for accurate similarity comparisons across different datasets.
  - **VectorAdd & VectorSub:** Facilitate vector arithmetic, enabling complex operations like combining or differentiating embeddings to refine search criteria or data representations.
- **AI Call Logging Improvements for Embedding**
  - Enhances logging mechanisms for AI operations related to embedding, offering better traceability and debugging information. This helps developers monitor performance and diagnose issues more effectively.

## Developer Benefits

- **Enhanced Data Processing Reliability**
  - With options to continue processing despite errors and receive post-operation summaries, developers can build more resilient bulk embedding workflows, minimizing downtime and manual intervention.
- **Expanded Search Capabilities**
  - Support for image inputs in semantic search broadens the range of applications, from visual content management systems to advanced image recognition features within FileMaker solutions.
- **Greater Precision and Flexibility**
  - Vector normalization and arithmetic functions provide developers with tools to fine-tune similarity searches and tailor data representations, leading to more accurate and meaningful search results.
- **Improved Debugging and Monitoring**
  - Enhanced AI call logging offers deeper insights into embedding operations, facilitating troubleshooting and performance optimization, which is critical for maintaining high-quality AI-driven features.
- **Streamlined Development Workflow**
  - These enhancements collectively reduce the complexity of implementing advanced AI features, allowing developers to focus more on innovative solutions rather than operational hurdles.

## Use Cases

- Developing applications for digital asset management where semantic search across images is essential.
- Creating sophisticated customer relationship management systems that leverage text and image data for enhanced user insights.
- Building AI-driven analytics tools that require precise vector operations and reliable embedding processes.

In summary, these improvements to semantic search and vector embedding functionality equip FileMaker developers with advanced tools to handle complex data types and operations, fostering the creation of more intelligent and responsive applications.

# AI Services

[< Return](#)

## High-Level Summary

A significant enhancement has been made to integrate open-source models and Python server functionalities more seamlessly into FileMaker Server, with improved management capabilities via the Admin Console. This update includes both backend improvements for server management and frontend conveniences for developers and administrators.

## Key Features

- **Admin Console UI for Open Source Model Management**
  - Administrators can now manage open-source model servers directly through the FileMaker Admin Console.
  - This includes functionalities to start, stop, and monitor the status of open-source large language models (LLMs).
  - Simplified certificate management through integration with FileMaker Server's reverse proxy.
- **Enhanced Security and Integration with Python Server:**
  - The update ensures secure integration of Python servers within FileMaker Server environments.
  - Utilizes LLM Keys for streamlined management via the FileMaker Admin Console (FAC).
- **Management of Python/Conda Environments:**
  - Administrators can upload and manage Python and Conda environments directly from the Admin Console.
  - Facilitates automatic setup of Miniforge and installation of dependencies necessary for running open-source models.
- **Developer-Friendly Enhancements:**
  - Despite server-side enhancements, developments using FileMaker Pro remain unaffected, allowing developers to continue leveraging Python for machine learning without impacting Pro deliverables.

## Why Developers Might Use This

- **Streamlined Operations:** By integrating model server management directly into the Admin Console, developers and admins can save time and reduce complexity in managing machine learning models and environments.
- **Improved Security Practices:** Built-in handling of certificates and secure connections ensures that integrations maintain high security standards, critical for enterprise environments.
- **Enhanced Development Workflow:** With Python and Conda management capabilities, developers can easily experiment and deploy machine learning models, fostering innovation and extending the capabilities of their FileMaker solutions with AI functionalities.
- **Seamless Pro and Server Integration:** Changes made at the server level do not disrupt FileMaker Pro users, allowing for robust development and testing workflows without affecting end-user applications.

Overall, these features empower developers to create more intelligent and dynamic FileMaker solutions by leveraging cutting-edge machine learning models within a secure and manageable framework.

## New Functions in Support of AI

[< Return](#)

### **NormalizeEmbedding**

Ensures embedding vectors are optimally formatted and scaled, enhancing precision and compatibility for custom AI operations within FileMaker solutions.

#### **Why Developers Will Find It Useful**

This function allows developers to seamlessly integrate and manipulate embedding vectors, whether generated externally or handcrafted within FileMaker. By normalizing vectors—essential for certain AI computations—developers can guarantee consistency and accuracy across vector-based operations, thereby expanding the potential for sophisticated, AI-driven features in their applications.

### **AddEmbeddings & SubtractEmbeddings**

Streamlines semantic operations by offering built-in functions to seamlessly add and subtract embedding vectors, enhancing computational efficiency and accuracy in AI tasks.

#### **Why Developers Will Find It Useful**

These functions simplify the process of crafting complex semantic relationships directly within FileMaker, enabling developers to build more sophisticated applications with improved search, comparison, and recommendation functionalities. By supporting rapid vector arithmetic, they open doors to innovative AI-driven solutions that can intuitively process and relate diverse data concepts.

### **GetRAGSpaceInfo**

Delivers insightful visibility into RAG Server configurations, empowering administrators with essential details on existing RAG Spaces and embedding models for optimized management.

#### **Why Developers Will Find It Useful:**

This function streamlines the administration of RAG Servers by providing clear insights into space configurations and utilized models. Developers can enhance operational efficiency by easily monitoring, expanding, or refining RAG Spaces, ensuring tailored AI applications that align with evolving business requirements and data strategies.

## New Functions in Support of AI

[< Return](#)

### **MLRegressionPred**

Enables precise predictive analytics within FileMaker by leveraging trained regression models to generate insightful forecasts from embedding vectors.

### **Why Developers Will Find It Useful**

This function equips developers with powerful predictive capabilities, allowing seamless integration of machine learning models into FileMaker solutions. By transforming embedding vectors into actionable predictions, developers can enhance decision-making processes across various applications, from financial forecasting to trend analysis, directly within their custom databases.

# GetFieldsOnLayout in FileMaker 2025

[< Return](#)

## Overview

The GetFieldsOnLayout function in FileMaker 2025 provides a detailed JSON representation of fields present on a specified layout, filtered by find accessibility criteria. This function aids developers in dynamically understanding and managing layout configurations within their solutions.

## Key Components

- **JSON Output:** Returns structured JSON data detailing field properties, including type and optional descriptions.
- **Field Filtering:** Only includes fields visible and findable in Find mode according to specific layout and privilege settings.

## How It Works

- **Layout Specification:** Input the name of a layout or leave blank to default to the current layout.
- **Data Extraction:** The function evaluates which fields meet find accessibility criteria and compiles their attributes into a JSON format.
- **JSON Structure:** Output includes layout name, field types, and optional descriptions stripped of any [LLM] prefixed comments unless specified.

## Developer Benefits

- **Dynamic Layout Management**
  - Automate the handling of layout fields programmatically, adjusting to changes in layout design or field accessibility without manual intervention.
- **Enhanced Integration with AI Features**
  - By identifying findable fields, developers can better tailor AI operations like natural language searches to relevant data subsets, improving accuracy and performance.
- **Improved Script Precision**
  - Facilitates precise script development by providing an exact snapshot of accessible fields, reducing errors related to field references and permissions.
- **Streamlined Documentation Processes**
  - Automatically generate documentation or metadata about layout configurations, aiding in maintenance and onboarding processes.
- **Selective Field Exposure**
  - Leverages field comments prefixed with [LLM] to conditionally include specific instructions or metadata for AI models or other processing logic.
- **Use Cases**
  - Creating adaptive user interfaces that adjust based on available and relevant fields for the current user or task.
  - Enhancing data validation and search functionalities by dynamically aligning with accessible fields on different layouts.
  - Integrating with external systems or AI models that require knowledge of specific, findable fields within a FileMaker solution.

In summary, the GetFieldsOnLayout function equips FileMaker developers with the tools to intelligently interact with and manage layout fields, fostering more robust, adaptable, and maintainable custom solutions.

# GetTextFromPDF in FileMaker 2025

[≤ Return](#)

## Overview

The GetTextFromPDF function in FileMaker 2025 extracts text content from PDF files stored in container fields, converting them into plain text format. This feature streamlines workflows that require interaction with PDF documents by enabling direct text retrieval and analysis.

## Key Components

- **PDF Text Extraction:** Focuses on converting PDF content into text, facilitating further processing within FileMaker solutions.
- **Content Analysis and Indexing:** Supports operations like indexing PDF content for searchability or automating data extraction from structured forms.

## How It Works

- **Container Reference:** Input a container field expression holding a PDF file.
- **Text Extraction:** The function processes the PDF to extract readable text, returning it as a text string.
- **Handling Limitations:** Returns a question mark (?) for PDFs with issues like being scanned, password-protected, or lacking extractable text.

## Developer Benefits

- **Enhanced Data Accessibility**
  - Easily access and utilize text content from PDFs stored within FileMaker, eliminating the need for manual extraction and external OCR tools.
- **Automated Workflows**
  - Facilitate automation of data entry and processing tasks from standardized PDF documents, such as forms and reports, improving efficiency and reducing errors.
- **Improved Search Capabilities**
  - Index PDF content directly within FileMaker to enable robust, searchable archives of document text, enhancing user ability to find information quickly.
- **Streamlined Document Management**
  - Simplify handling of document-heavy processes by integrating PDF text extraction into broader data management and analysis workflows.
- **Cost-Effective Solution**
  - Reduces dependency on third-party PDF processing software by providing built-in text extraction capabilities directly within the FileMaker environment.

## Use Cases

- Automatically populating database records with data extracted from PDF forms submitted by users.
- Creating a searchable database archive of invoices, reports, or contracts by indexing the text content of stored PDFs.
- Analyzing textual data from a library of PDF documents to extract insights or trends without external processing tools.

In summary, the GetTextFromPDF function empowers FileMaker developers to leverage PDF content more effectively within their solutions, enhancing data accessibility, automation, and searchability while reducing reliance on external tools.



# Go to List of Records Script Step in FileMaker 2025

[< Return](#)

## Overview

The Go to List of Records feature enhances navigation capabilities within FileMaker solutions by allowing scripts to redirect users to a specified list of records based on defined relationships and found sets. This feature facilitates efficient data exploration and relationship-based interactions.

## Key Components

- **Found Set Navigation:** Directs to a list of related records matching specified criteria, either from the current record or entire found set.
- **Flexible Display Options:** Supports opening records in new windows and utilizing different layouts for presentation.

## How It Works

- **Relationship Specification:** Define the source relationship and, optionally, the layout for displaying related records.
- **Record Matching:** Choose to match either the current record alone or all records within the existing found set.
- **Navigation Execution:** Execute navigation to display related records, optionally employing animations for visual transitions (FileMaker Go only).

## Developer Benefits

- **Enhanced User Experience**
  - Provides seamless transitions to related data, improving navigation intuitiveness and user engagement within applications.
- **Dynamic Data Interaction**
  - Facilitates complex queries and relationship-driven explorations, allowing users to effortlessly access associated records across different tables.
- **Customizable Presentation**
  - Offers options to tailor how related data is presented, including new windows and specific layouts, enhancing contextual relevance and clarity.
- **Robust Error Handling**
  - Enables developers to implement checks and error handling around record retrieval, reducing unexpected behaviors and improving script reliability.
- **Cross-File Integration**
  - Supports navigation to related records stored in external files, broadening data integration possibilities and maintaining cohesive user experiences across multiple databases.

## Use Cases

- Navigating from an invoice to its associated customer records, displaying all relevant customer data for further analysis or editing.
- Creating dynamic dashboards in FileMaker Go that allow users to tap on summarized data points and drill down into detailed lists of related records.
- Implementing advanced search functionalities where users can filter and view lists of related transactions or related entities based on current context.

In summary, the Go to List of Records feature empowers FileMaker developers to craft more navigable and user-friendly applications by leveraging relational data access, enhancing both the efficiency and depth of user interactions with the database.

# Folders for Custom Functions in FileMaker 2025

[< Return](#)

## High-Level Summary

In FileMaker 2025, a significant enhancement has been made to the management of custom functions by introducing folder structures within the "Manage Custom Functions" dialog. This feature mirrors the organizational capabilities already available for scripts and layouts, allowing developers to better categorize and manage their custom functions.

## Key Features

- **Folder Management:** Developers can now create, delete, duplicate, copy, paste, rename, reorder, expand, and collapse folders within the custom functions interface.
- **View and Filter Options:** Users can choose to view all functions or filter by specific folders using a dropdown list. Additionally, a search function allows for quick locating of specific functions or folders.
- **Import/Export Flexibility:** The feature supports importing custom functions between files regardless of whether they use the new folder structure or the old flat structure, ensuring backward compatibility across different FileMaker versions.
- **Display Preferences:** Folders do not appear in the Edit Calculation dialog to maintain a streamlined interface during formula creation.
- **Integration with Existing Features:** The enhanced dialog retains its modal nature for consistent user experience and supports Data Definition Report (DDR) and XML export functionalities.

## Benefits for Developers

- **Improved Organization:** By allowing custom functions to be sorted into folders, developers can maintain a cleaner and more logical workspace, especially beneficial for projects with extensive custom function libraries.
- **Enhanced Efficiency:** Faster navigation and search capabilities reduce the time spent looking for specific functions, thus boosting productivity.
- **Simplified Collaboration:** Team members can more easily understand and work within a shared codebase thanks to clearer structural organization.
- **Seamless Transition:** Backward compatibility ensures that developers can adopt this new feature without immediate overhauls of existing solutions, facilitating a gradual transition.

Overall, this enhancement empowers developers to manage complex solutions more effectively, promoting better project maintainability and scalability in their FileMaker custom applications.

# Collapse Script Parts in FileMaker 2025

[< Return](#)

## High-Level Summary

FileMaker 2025 introduces code folding functionality to the Script Workspace, enabling developers to collapse and expand sections of scripts. This feature enhances script navigation and management by allowing developers to focus on high-level structures while working within complex scripts.

## Key Features

- **Collapsible Sections:** Developers can fold and unfold key script blocks such as `If`, `Loop`, `Transaction`, and comment sections. This helps in condensing scripts to view only essential parts, providing a "bird's eye view."
- **Enhanced Navigation:** By reducing the amount of visible script content, developers can minimize scrolling and more easily retain an overview of the script's core functionality.
- **Selective Functionality on Folded Blocks:**
  - **Actions Enabled:** Within folded sections, developers can still run scripts, perform find operations, copy/paste selections, navigate to specific lines, and select all content.
  - **Actions Disabled:** To prevent accidental modifications, actions like inserting, modifying, or dragging/dropping script steps are not available on folded blocks.

## Benefits for Developers

- **Improved Clarity and Focus:** By collapsing less critical parts of a script, developers can concentrate on the main logic and structure, which is particularly useful for debugging or reviewing extensive scripts.
- **Increased Productivity:** Easier navigation and reduced clutter streamline the development process, allowing developers to make quicker adjustments and enhancements.
- **Better Collaboration:** Team members reviewing scripts can benefit from a clearer presentation of logic flow, facilitating easier understanding and discussion of script functionality.
- **Error Reduction:** Disabling certain actions on folded blocks helps prevent inadvertent changes, adding a layer of protection to the script development process.

Overall, the code folding feature in the FileMaker 2025 Script Workspace offers developers a more organized, efficient, and error-resistant environment for managing complex scripts within their custom solutions.

# macOS UI Refresh in FileMaker 2025

[< Return](#)

## High-Level Summary

In FileMaker 2025, a significant macOS UI refresh aims to modernize the FileMaker Pro interface, enhancing user experience for both developers and end-users. This initiative, primarily targeting macOS, seeks to reduce the legacy perception of FileMaker by incorporating contemporary design elements and improving usability.

## Key Features and Goals

- **Modernized Design Language:**
  - Update various UI components such as the Status Toolbar, Left and Right Panes in Layout Mode, Table View, EULA, Trial Conversion process, and Launch Center to align with modern design standards.
- **Primary Focus on Developers and New Users:**
  - While developers are the primary persona, the updates also consider new and end users to ensure FileMaker Pro is approachable and intuitive for all entry points.
- **Addressing Legacy Perception:**
  - By rejuvenating the interface, Claris aims to shift the perception of FileMaker from outdated to modern and user-friendly, thereby attracting new users and increasing satisfaction among existing ones.

## Benefits for Developers

- **Enhanced Workflow:** A modernized interface can streamline developers' interactions with FileMaker Pro, potentially increasing productivity and reducing cognitive load by making tools and features more intuitive.
- **Improved Aesthetics and Usability:** A visually appealing and well-organized workspace can enhance the overall development experience, making it more enjoyable and less tedious.
- **Competitive Edge:** Leveraging a current design helps developers stay aligned with modern software standards, which can be beneficial when showcasing their solutions to clients or collaborating within teams accustomed to contemporary interfaces.
- **Attracting New Talent:** A fresh, intuitive UI may draw new developers to the FileMaker platform, expanding community resources and collaboration opportunities.

Overall, the macOS UI refresh in FileMaker 2025 represents a strategic effort to elevate the platform's appeal and usability, ensuring it meets the expectations of modern users while supporting developers in creating efficient, visually coherent solutions.

# Add/Remove Object to group in FileMaker 2025

[< Return](#)

## High-Level Summary

FileMaker 2025 introduces enhanced grouping functionalities, allowing developers more precise control when managing objects within layouts. Specifically, the ability to add or remove objects from groups without disrupting their containment within other layout elements, such as tab controls, is now improved.

## Key Features

- **Enhanced Group Management:**
  - **Add Object to Group:** Developers can now add an object to an existing group even if the object is not initially part of that group, facilitating easier reorganization of layout elements.
  - **Remove Object from Group:** Objects can be removed from a group without being ejected from their containing layout elements (e.g., tab panels), ensuring that object positioning remains intact.
- **Improved Object Placement Logic:**
  - Correct handling of object positions when removing from nested groups, preventing unintended displacement and maintaining layout integrity.
- **User Interface and Accessibility Enhancements:**
  - New options added to "Add to Group" and "Remove from Group" in the Arrange menu, improving accessibility.
  - Introduction of keyboard shortcuts for these actions on both Windows and macOS, streamlining workflow for developers.

## Benefits for Developers

- **Greater Flexibility in Layout Design:** These enhancements provide developers with more control over object organization within layouts, enabling more complex and dynamic interface designs.
- **Time Savings and Efficiency:** Reduced manual adjustments needed when reorganizing or restructuring layout elements, allowing developers to focus more on functionality rather than layout tweaking.
- **Enhanced Precision and Control:** Accurate object management within nested containers and groups minimizes errors and unexpected changes in layout appearance, leading to more predictable and reliable solutions.
- **Improved User Experience:** By maintaining intended object placements during group manipulations, the end-user interface remains consistent and professional, enhancing usability.

Overall, these improvements to grouping functionalities in FileMaker 2025 empower developers to create and manage custom solutions more effectively, with enhanced control over the visual and functional aspects of their applications.

# Improved JSON Performance in FileMaker 2025

[< Return](#)

## High-Level Summary

FileMaker 2025 introduces enhanced JSON performance features by addressing the slow parsing times associated with string conversion. The key enhancement is the introduction of a mechanism to cache parsed JSON objects, significantly improving efficiency for repeated JSON operations.

## Key Features

- **JSON Caching Mechanism:**
  - Introduces a caching system that stores parsed JSON objects alongside their text representations in a DBData object, reducing redundant parsing operations.
  - Previously cached text per thread is replaced with more efficient storage and retrieval directly linked to the DBData object.
- **New Functions - JSONParse and JSONInfo:**
  - `JSONParse( input )`: Attempts to parse the input as JSON and caches the result, returning either the parsed JSON text or an error string if parsing fails.
  - `JSONInfo( input )`: Checks if the input contains parsed JSON and returns status codes indicating whether it's valid, invalid, or unparsed.

## Benefits for Developers

- **Performance Gains:** Significant reduction in JSON processing time for solutions heavily reliant on JSON data (such as AI/LMM), leading to faster calculations and improved overall application responsiveness.
- **Flexible Data Handling:** New functions and caching strategies provide developers with more control over JSON data management, tailoring operations based on specific needs and reducing unnecessary computations.
- **Enhanced Development Workflow:** By pre-parsing and caching JSON data in variables, developers can streamline repeated operations across scripts and calculations, improving code efficiency and maintainability.
- **Future-Proofing Solutions:** Adopting these advanced features positions developers to leverage further optimizations and aligns their solutions with Claris's ongoing improvements to the FileMaker platform.

Overall, these enhancements empower FileMaker developers to build more efficient, scalable, and responsive custom solutions, particularly when dealing with complex JSON data structures.

# Upgrade Tool Enhancements in FileMaker 2025

[< Return](#)

## Overview

The upgrade tool now has enhanced schema patching capabilities for the ReplaceAction and AddAction elements, as well as enhanced patching application logic.

## Key Components

- In patch files, the upgrade tool now also supports:
  - For AddAction, layout objects, format options for number fields, date options for date and timestamp fields, and time options for time and timestamp fields.
  - For ReplaceAction, scripts, script steps, base tables, fields, table occurrences, relationships, value lists, custom functions, custom menus, custom menu sets, accounts, privilege sets, extended privileges, external data sources, themes, and base directories (for externally stored container field data).

## How It Works

- Patch application logic now uses this fallback method when searching for matching catalog members: first search by name and ID together; if that fails and a UUID is also specified, then search by UUID; if that fails, use the first member that matches by name only.
- The upgrade tool now uses the same search mechanism for both DeleteAction and ReplaceAction. Previously, DeleteAction only searched for UUIDs. Now, both search for UUIDs and fall back to searching for SourceUUID if no match is found.

## Use Cases

- **Scenario 1:** Updating custom scripts in large FileMaker solutions.
- **Scenario 2:** Modifying layouts & layout objects without manual overhauls.
- **Scenario 3:** Extending legacy apps to newer FileMaker versions with minimal disruption.

## Summary

- **Enhanced Capabilities:** Wider support for critical actions & objects.
- **Developer-Centric:** Improved tools & flexibility for smoother upgrades.
- **Future-Ready:** Paving the way for automated patch generation & streamlined workflows

# Performance Improvements in FileMaker Server 2025

[< Return](#)

## High-Level Summary

FileMaker 2025 addresses critical performance issues on FileMaker Server, specifically targeting memory leaks associated with script threading, to enhance server stability and responsiveness. The primary improvement involves optimizing the management of script threads during script execution requests.

## Key Features

- **Memory Leak Resolution:**
  - **Script Thread Management:** Previously, each script execution request resulted in the creation of a new FMScriptThread without proper deletion, leading to memory leaks. The update addresses this by ensuring proper thread lifecycle management.
- **Performance Optimization:**
  - **Use of DispatchQueue:** Transitioning to DispatchQueue for handling script execution requests not only resolves memory leaks but also aims to improve the server's response times by leveraging more efficient threading mechanisms.

## Benefits for Developers

- **Increased Server Stability:** By eliminating memory leaks, FileMaker Server becomes more robust, reducing the likelihood of crashes or degraded performance over time, which is crucial for maintaining continuous application availability.
- **Enhanced Performance:** Optimized script threading can lead to faster execution of scripts on the server, improving overall application responsiveness and user experience, particularly in environments with high script execution volumes.
- **Reduced Maintenance Overhead:** With these underlying improvements, developers can expect fewer issues related to memory management, allowing them to focus more on application logic and less on server troubleshooting.
- **Scalability:** Improved resource management paves the way for handling more complex workflows and larger datasets without compromising server performance, supporting the growth and scaling of custom solutions.

Overall, these performance enhancements in FileMaker 2025 contribute to a more reliable and efficient server environment, enabling developers to build and deploy more powerful and scalable FileMaker solutions.



# Improved Send Thread Pool in FileMaker Server 2025

[< Return](#)

## High-Level Summary

FileMaker 2025 introduces improvements to the Send Thread Pool within FileMaker Server, enhancing scalability and performance when pushing updates to clients. By modernizing the threading mechanism used for sending operations, the update aims to optimize resource utilization and handle more simultaneous client interactions efficiently.

## Key Features

- **Modernization of Thread Pool:**
  - **Replacement with DispatchQueue or Advanced ThreadPool:** The existing Send Thread Pool, limited by `kMaxSendingThreadPool` set to 100, is being replaced with more efficient threading solutions like `DispatchQueue` or an advanced custom `ThreadPool`. This change is designed to better manage concurrent sending tasks.
- **Enhanced Handling of Reader Locks:**
  - Optimization in how the Tickle thread manages reader locks while waiting for `SendThreads`, reducing bottlenecks and improving the throughput of update notifications to clients.

## Benefits for Developers

- **Improved Scalability:** The ability to handle more simultaneous sending operations without being constrained by a fixed thread pool size means the server can support more clients and more dynamic interactions efficiently.
- **Increased Throughput:** By optimizing how updates are pushed to clients, applications can experience faster data synchronization and real-time updates, enhancing the user experience, especially in large-scale or high-traffic environments.
- **Resource Efficiency:** Modern threading approaches can lead to better CPU and memory utilization, allowing the server to perform optimally under varying loads without unnecessary resource contention.
- **Reduced Latency:** Enhancements in managing sending tasks and reader locks contribute to lower latency in data updates, crucial for applications requiring timely and accurate data dissemination.

Overall, these improvements to the Send Thread Pool in FileMaker 2025 provide a more robust and scalable foundation for server operations, enabling developers to build solutions that can seamlessly scale to meet growing demands and deliver a responsive user experience.

# FAC/Admin API Enhancements in FileMaker Server 2025

[< Return](#)

## High-Level Summary

FileMaker 2025 introduces enhancements to the FileMaker Administration Console (FAC) and Admin API, focusing on the ability to flush database pages to disk. This feature provides server administrators with greater control over database caching and performance management, ensuring efficient use of server resources.

## Key Features

### • Flush Database Pages Functionality:

- **Admin API Enhancement:** New endpoints are added to the Admin API, allowing administrators to flush pages for a specific FileMaker file or all files on the server. This programmatic access facilitates automated management tasks and integration with other systems.
- **FAC UI Integration:** The Admin Console is updated to include options for server administrators to manually trigger page flushing for selected files or globally across the server, offering a user-friendly interface for performance tuning.

### • Status and Logging Updates:

- **New Status Strings:** Introduction of specific status indicators ("Flush", "Flush All", "Flushing") to reflect the flushing operations within the database status tooltips and logs, improving observability.
- **Enhanced Event Logging:** Comprehensive logging for flushing operations, including messages for state transitions, successful flushes, and error handling, aiding in monitoring and troubleshooting.

## Benefits for Developers and Administrators

- **Improved Server Performance:** The ability to flush database pages on demand helps manage memory usage and ensures that frequently accessed data remains readily available, optimizing overall server performance.
- **Greater Operational Control:** Administrators gain precise tools to manage in-memory data, which can be crucial in environments with fluctuating workloads or limited memory resources.
- **Automation and Integration:** With API access, developers can integrate database flushing operations into broader automation scripts or monitoring systems, enhancing efficiency in large-scale deployments.
- **Enhanced Debugging and Monitoring:** Detailed logging and status updates provide better insights into database operations, facilitating quicker diagnosis and resolution of potential issues related to memory caching.

Overall, these FAC and Admin API enhancements in FileMaker 2025 empower administrators and developers with advanced tools for effective database management, leading to more reliable and high-performing FileMaker solutions.

# Let's Encrypt Integration in FileMaker Server 2025

[< Return](#)

## High-Level Summary

FileMaker 2025 enhances native support for Let's Encrypt within FileMaker Server, simplifying the process of securing servers with free SSL certificates. This enhancement reduces costs and complexity, enabling administrators to establish HTTPS connections effortlessly while maintaining robust security standards.

## Key Features

- **Native Let's Encrypt Integration:**
  - Seamless integration of Let's Encrypt certificates directly through the FileMaker Admin Console, eliminating the need for manual command-line operations and external tools.
- **Cost-Effective Security:**
  - Utilization of Let's Encrypt's free digital certificates offers a significant cost saving over traditional wildcard SSL certificates, making secure server deployment accessible to more users.
- **Automated Certificate Management:**
  - Simplified certificate renewal process, with the capability for automatic renewal to ensure uninterrupted secure connections without administrative intervention.
- **Streamlined Setup Process:**
  - Enhanced Admin Console UI allows administrators to input their hostname and automatically configure SSL using Let's Encrypt during the initial server setup or anytime thereafter.

## Benefits for Developers and Administrators

- **Ease of Use:** Reduces the technical barrier to implementing SSL, allowing even those with limited administrative experience to secure their FileMaker Server deployments quickly and efficiently.
- **Improved Security Posture:** Encourages the use of HTTPS across deployments, protecting data in transit and enhancing trust with users by safeguarding against potential security vulnerabilities associated with self-signed certificates.
- **Reduced Administrative Burden:** Automated certificate renewal minimizes maintenance tasks and lowers the likelihood of service interruptions due to expired certificates.
- **Increased Platform Adoption:** By simplifying security configurations, FileMaker becomes more appealing to IT departments, facilitating broader organizational acceptance and integration into existing IT infrastructures.

Overall, the native Let's Encrypt support in FileMaker 2025 empowers administrators with an easy, cost-effective way to enhance server security, aligning with modern security practices and reducing operational complexities.

# Keyboard Navigation Support in FileMaker Go 2025

[< Return](#)

## High-Level Summary

FileMaker 2025 enhances keyboard navigation support in FileMaker Go for iOS and iPadOS, addressing long-standing usability issues and aligning with documented functionalities. This update improves the accessibility and user experience for those utilizing FileMaker solutions on mobile devices with external keyboards.

## Key Features

- **Arrow Key and Space/Enter Navigation:**
  - **Enhanced Navigation:** Introduces support for using arrow keys to navigate between layout objects such as slide and tab panel buttons, alongside the Space or Enter key to activate buttons, mirroring typical desktop navigation behaviors.
- **Keyboard Shortcuts Integration:**
  - **New Shortcut Entries:** Adds specific keyboard shortcut entries for Space and Enter to activate buttons, and arrow keys for navigation, ensuring consistency and predictability in user interactions.
- **Resolution of Existing Issues:**
  - **Fixes for "Go To Object" Functionality:** Resolves problems where the "Go To Object" script step did not work with named buttons on iOS, and ensures proper tab navigation functionality to buttons, as documented.

## Benefits for Developers and Users

- **Improved Accessibility:** Makes FileMaker Go more accessible to users who rely on keyboard navigation due to preferences or physical requirements, broadening the user base and enhancing usability.
- **Consistent User Experience:** Aligns mobile navigation behaviors with desktop expectations, reducing learning curves and increasing efficiency for users transitioning between platforms.
- **Enhanced Usability for Complex Solutions:** Facilitates easier navigation in complex layouts with numerous interactive elements, improving productivity for power users and in environments where touch interaction is less feasible.
- **Bug Resolution and Feature Reliability:** Addressing documented and community-reported issues enhances overall software reliability and user trust in FileMaker Go's capabilities.

Overall, these keyboard navigation enhancements in FileMaker 2025 contribute to a more robust and user-friendly mobile experience, enabling developers to design solutions that cater to a wider range of user needs and scenarios.

# Hover State Support in FileMaker Go 2025

[< Return](#)

## High-Level Summary

FileMaker 2025 introduces hover state support for a wide range of layout objects on iOS and iPadOS, enhancing the interactivity and user experience by providing visual feedback when users interact with objects using hover gestures.

## Key Features

- **Comprehensive Hover Support:**
  - Implements system-wide hover effects across numerous layout objects, including text elements, shapes, fields, buttons, and more, ensuring a consistent and modern interactive experience.
- **Supported Objects:**
  - **Text Elements:** Static text, merge fields, and layout calculations.
  - **Shapes and Lines:** Visual elements used for design and structuring layouts.
  - **Interactive Fields:** Various input fields such as edit boxes, drop-down lists, pop-up menus, checkboxes, radio buttons, calendars, and container fields.
  - **Navigation and Control Elements:** Buttons, popover buttons, button bars, tab controls, slide controls, portals, charts, and web viewers.

## Benefits for Developers and Users

- **Enhanced User Experience:** Provides intuitive visual cues that improve navigation and interaction, making applications feel more responsive and engaging on iOS, iPadOS, and visionOS devices.
- **Increased Interactivity:** Elevates the interactivity of FileMaker solutions, allowing users to leverage hover gestures akin to traditional mouse interactions, which can be particularly beneficial in touch, and augmented reality or mixed reality environments.
- **Modern Aesthetic:** Aligns FileMaker applications with contemporary design standards found in visionOS, potentially increasing user satisfaction and adoption by offering familiar interaction patterns.
- **Design Flexibility:** Empowers developers to create more sophisticated and visually appealing interfaces without additional coding complexity, leveraging built-in hover effects to enhance usability.

Overall, the introduction of hover state support in FileMaker Go 2025 enriches the user interface capabilities on iOS, iPadOS, and visionOS, offering developers new tools to craft immersive and interactive solutions that meet modern user expectations.

# Right-Click Context Menu in FileMaker WebDirect 2025

[< Return](#)

## High-Level Summary

Addresses the long-standing absence of a native right-click context menu in FileMaker WebDirect, which has been a source of user frustration, particularly among those accustomed to traditional desktop interfaces for actions like copy and paste.

## Key Points:

### • User Experience Concerns:

- Many users, especially those transitioning from FileMaker Pro, expect the familiarity of a right-click menu for efficient navigation and data manipulation.
- The absence of this feature impacts productivity and user satisfaction, particularly in solutions with complex layouts where extensive interaction is required.

### • Current Workaround:

- A JavaScript-based workaround involves embedding code in a Web Viewer to inject a context menu into WebDirect pages.
- This method overrides default context menu behaviors by listening for DOM changes and nullifying existing context menu events.

### • Limitations and Issues with Workaround:

- **Performance Degradation:** On large or complex layouts, the continuous manipulation of DOM elements may lead to performance issues, such as layout freezing or slowdowns.
- **Potential Memory Leaks:** The workaround may cause memory consumption to rise over time, particularly with frequent layout reloads or extensive user interaction, risking application instability.
- **Maintenance Challenges:** Relying on non-native solutions complicates maintenance and increases the potential for compatibility issues with future WebDirect updates or browser changes.

### • Expected Enhancement:

- A native implementation of a right-click context menu in WebDirect would eliminate the need for cumbersome workarounds, providing a seamless and efficient user experience consistent with other web applications.
- It would likely improve performance and reliability, reducing the risk of freezing or memory issues associated with current methods.

## Developer Benefits:

- **Improved Usability:** Direct support for context menus enhances the user interface, making FileMaker WebDirect applications more intuitive and aligned with user expectations from web and desktop environments.
- **Reduced Development Overhead:** Eliminating the need for custom JavaScript workarounds simplifies development and maintenance, allowing developers to focus on core functionality rather than patching interface limitations.
- **Enhanced Stability and Performance:** A native solution is expected to offer better performance characteristics, avoiding the pitfalls associated with DOM manipulation and ensuring a smoother experience for end-users, especially in resource-intensive applications.

Incorporating a right-click context menu into WebDirect aligns with modern web application standards and user expectations, addressing key usability gaps and paving the way for more robust and maintainable FileMaker solutions.

# Custom Homepage Configuration in FileMaker WebDirect 2025

[< Return](#)

## High-Level Summary

The Custom Homepage Configuration enhancement introduces the ability to manage FileMaker WebDirect's custom homepage settings directly through the FileMaker Server Admin Console (FAC). This feature aims to streamline server configuration and improve automation potential.

## Key Features and Enhancements:

- **Direct Configuration via FAC:**
  - Administrators can now enable or disable the custom homepage feature directly within the FAC without needing to manually edit configuration files or restart services unnecessarily.
- **Custom Homepage URL Management:**
  - The FAC interface allows setting, retrieving, and validating custom homepage URLs.
  - Supports multiple URLs separated by commas, adhering to strict validation rules ensuring proper URL formats.
- **Validation Rules for URLs:**
  - URLs must not be empty and should not exceed 254 characters.
  - Must start with http:// or https://, followed by a valid domain name or IP address.
  - Domain name validation ensures correct formatting.
- **Automated Service Restarts:**
  - Changes to the custom homepage URL automatically trigger necessary restarts of relevant processes (JWPC and CWPC), eliminating the need for manual intervention and reducing downtime.

## • API Endpoints for Automation:

- Two new API endpoints are introduced:
  - **Custom Homepage Configuration:** Manage the enabling/disabling of the custom homepage.
  - **Custom Home URL Configuration:** Handle URL settings for WebDirect.
- These endpoints support both GET and PATCH methods for retrieving and updating settings, facilitating integration with automation tools and scripts.

## • Improved User Interface and Strings:

- New and updated strings for better UI clarity in FAC, including titles, labels, tooltips, and dialog messages guiding users through configuration changes.

## Developer and Administrator Benefits:

- **Simplified Management:** Centralizing custom homepage management within FAC reduces complexity, making it easier for administrators to configure and maintain FileMaker WebDirect settings.
- **Enhanced Automation:** With API support, developers can integrate homepage management into larger automation scripts, streamlining server deployment and updates across environments.
- **Reduced Risk of Errors:** Built-in validation and automated processes minimize human error during configuration changes, enhancing system stability and reliability.
- **User Experience Improvements:** Providing a straightforward interface for configuring custom homepages aligns WebDirect more closely with user expectations, potentially increasing user satisfaction and adoption.

Overall, this enhancement provides a more robust, user-friendly, and automatable framework for managing FileMaker WebDirect's custom homepage settings, benefiting both developers and system administrators in their day-to-day operations.

# Browser Back Button Warning in FileMaker WebDirect 2025

[< Return](#)

## High-Level Summary

This enhancement addresses user frustration caused by session termination when the browser's back button is clicked in FileMaker WebDirect. The goal is to implement a warning dialog to prevent accidental session loss, improving the user experience.

## Key Points:

- **Current User Experience Issue:**
  - Users frequently end their FileMaker WebDirect sessions unintentionally by using the browser's back button, leading to confusion and disruption of workflow.
- **Solution:**
  - Implement a warning dialog using JavaScript (e.g., via jQuery) that appears when users attempt to navigate back using the browser's back button.
  - This dialog alerts users to the consequences of going back and provide options to either stay on the current page or proceed, thereby reducing accidental session terminations.
- **Expected Benefits:**
  - **Improved User Experience:** By preventing accidental session closures, users can navigate more freely within WebDirect without losing progress or needing to restart sessions frequently.
  - **Reduced Support Queries:** Minimizing unintended session terminations can lead to fewer user support requests and increased satisfaction with the application.
  - **Intuitive Navigation:** Aligns WebDirect behavior more closely with typical web browsing expectations, where the back button does not necessarily close the application or session.

## Developer and Administrator Considerations:

- **User Experience Balance:** The warning dialog message should inform but not frustrate users, providing clear choices that align with their intentions.

Overall, adding a browser back button warning dialog in FileMaker WebDirect aims to enhance usability by preventing accidental session losses, thereby providing a smoother and more intuitive user experience.



# Performance Improvements in FileMaker WebDirect 2025

[< Return](#)

## High-Level Summary

This enhancement addresses significant performance degradation issues observed in FileMaker Server's WebDirect mode, particularly affecting secondary machines in multi-machine deployments. The focus is on identifying and resolving bottlenecks that lead to increased task execution times as the number of WebDirect users rises.

### Key Issues and Challenges:

- **Performance Bottleneck:**
  - Users experience significantly slower performance on secondary machines compared to primary machines once more than 50 WebDirect sessions are active.
  - Tasks that normally complete in seconds take over 10 seconds, without corresponding spikes in CPU, memory usage, or other resource constraints.
- **Environment and Reproducibility:**
  - Slowness specific to WebDirect, with FileMaker Pro clients remaining unaffected.
  - Linux-based server environment shows minimal load even under lag conditions.
- **Diagnostic Observations:**
  - Extensive logging indicates delayed external file access times, with startup scripts taking excessively long during peak lag periods.
  - Resource diagnostics reveal no apparent overuse, suggesting an internal queue or processing delay within WebDirect or related services.

### Developer and Administrator Benefits:

- **Enhanced Scalability:** Resolving these performance issues will enable FileMaker Server to handle more WebDirect users efficiently, supporting scalable deployments without unexpected slowdowns.
- **Improved User Satisfaction:** Faster response times and consistent performance across primary and secondary machines will enhance the overall user experience for WebDirect clients.
- **Operational Stability:** Identifying and mitigating the bottleneck will reduce uncertainty in server behavior under load, allowing for more predictable and reliable operations.
- **Informed Decision-Making:** Insights gained from troubleshooting and performance tuning can guide infrastructure decisions, such as load balancing and resource allocation strategies.

### Expected Outcomes:

- **Equivalent Performance:** Achieve uniform performance metrics between primary and secondary machines regardless of the number of concurrent WebDirect sessions.
- **Resource Optimization:** Ensure server resources are optimally utilized without unnecessary delays, aligning system performance with available hardware capabilities.
- **Foundation for Future Enhancements:** Resolving current issues lays the groundwork for further performance improvements and feature expansions in subsequent FileMaker Server versions.

By addressing these performance challenges in FileMaker 2025, Claris aims to deliver a more robust and responsive WebDirect experience, particularly in complex, multi-server environments, thereby meeting the demands of growing organizations and their user bases.

# Data API Client Session Validation in FileMaker 2025

[< Return](#)

## Summary of Enhancements

This update addresses issues related to session handling in FileMaker's Data API (DAPI), specifically focusing on improving concurrency and resource management during session use.

## Key Issues and Solutions:

- **Concurrency Limitation in Session Validation:**
  - **Issue Reported:** When a script is paused using DAPI, other operations attempting to use the same session token are blocked until the script completes. This behavior contrasts with FileMaker Pro (FMP) and OData, where sessions allow concurrent operations.
  - **Solution:** Update the /validateSession endpoint to indicate a "busy" status when a session is actively being used by a script. This change aims to make the session behavior more consistent across different access methods, allowing other operations to queue or notify rather than wait indefinitely.
- **Mitigation of Refresh Token Delays:**
  - **Objective:** Ensure that FileMaker-based DAPI sessions do not excessively consume server resources or cause delays in authentication refreshes, which could impact server performance and user experience.
  - **Improvements:**
    - **Resource Management:** Avoid monopolization of Connect resources by balancing DAPI session loads effectively.
    - **Server Load Prevention:** Implement strategies to manage DAPI sessions in a way that prevents overwhelming customer-hosted environments.
    - **Efficient Authentication:** Allow FileMaker Connector-based authentication processes to refresh tokens smoothly, minimizing unnecessary delays that could disrupt workflows.

## Developer Benefits:

- **Improved Application Responsiveness:** By enabling concurrent operations during script execution, applications can handle multiple user requests more efficiently, leading to a smoother user experience.
- **Scalability and Reliability:** Better session management ensures that applications remain responsive and scalable, even under heavy use or when deployed on customer-hosted servers with limited resources.
- **Enhanced User Experience:** Reducing delays associated with token refreshes and session handling contributes to more seamless interactions, particularly in environments requiring high availability and rapid response times.

Overall, these enhancements aim to align DAPI session behaviors with user expectations and other access methods, providing a more robust and flexible foundation for custom FileMaker solutions interacting with the Data API.

# WebHook Support in FileMaker OData API in FileMaker 2025

[< Return](#)

## High-Level Summary

This new feature introduces WebHook support in FileMaker's OData API, allowing external services like Claris Studio and Claris Connect to receive real-time notifications about changes in records or schemas within a FileMaker database.

## Key Features:

- **Real-Time Event Notifications:**
  - WebHooks enable Studio and Connect to be instantly informed when there are modifications to records or schemas, facilitating immediate processing or reaction to these changes.
- **Configuration via POST Operation:**
  - Developers can enable WebHooks by making a POST request to the specified endpoint, configuring details such as:
    - The URL to which events should be sent.
    - The specific table occurrence to monitor.
    - Optional custom headers for the WebHook requests.
    - Optional notifications for schema changes.
    - Filtering and selecting specific fields of interest.
- **Management and Deactivation:**
  - WebHooks can be easily disabled or managed using a DELETE operation with the unique WebHook ID obtained during setup.

## • WebHook Payload Structure:

- Notifications include detailed information about the changes:
  - Use of HTTP methods corresponding to CRUD operations (POST for create, PATCH for update, DELETE for delete).
  - Payloads contain metadata and relevant record data, structured in JSON format adhering to OData standards.
  - Special headers include the WebHook ID for precise tracking and management.

## Why Developers Might Use This:

- **Enhanced Integration Capabilities:** Real-time notifications allow for seamless integration with other systems and services such as Claris Studio and Claris Connect, enabling automated workflows and immediate data synchronization across platforms.
- **Improved Responsiveness:** Applications can react promptly to data changes, which is crucial for time-sensitive operations and maintaining data consistency across integrated systems.
- **Efficient Resource Utilization:** By filtering and selecting only necessary data changes, developers can reduce unnecessary data processing and optimize resource usage both within FileMaker and in connected services.
- **Simplified Architecture:** WebHooks provide a straightforward mechanism for pushing updates, eliminating the need for polling mechanisms and reducing the load on both client and server sides.

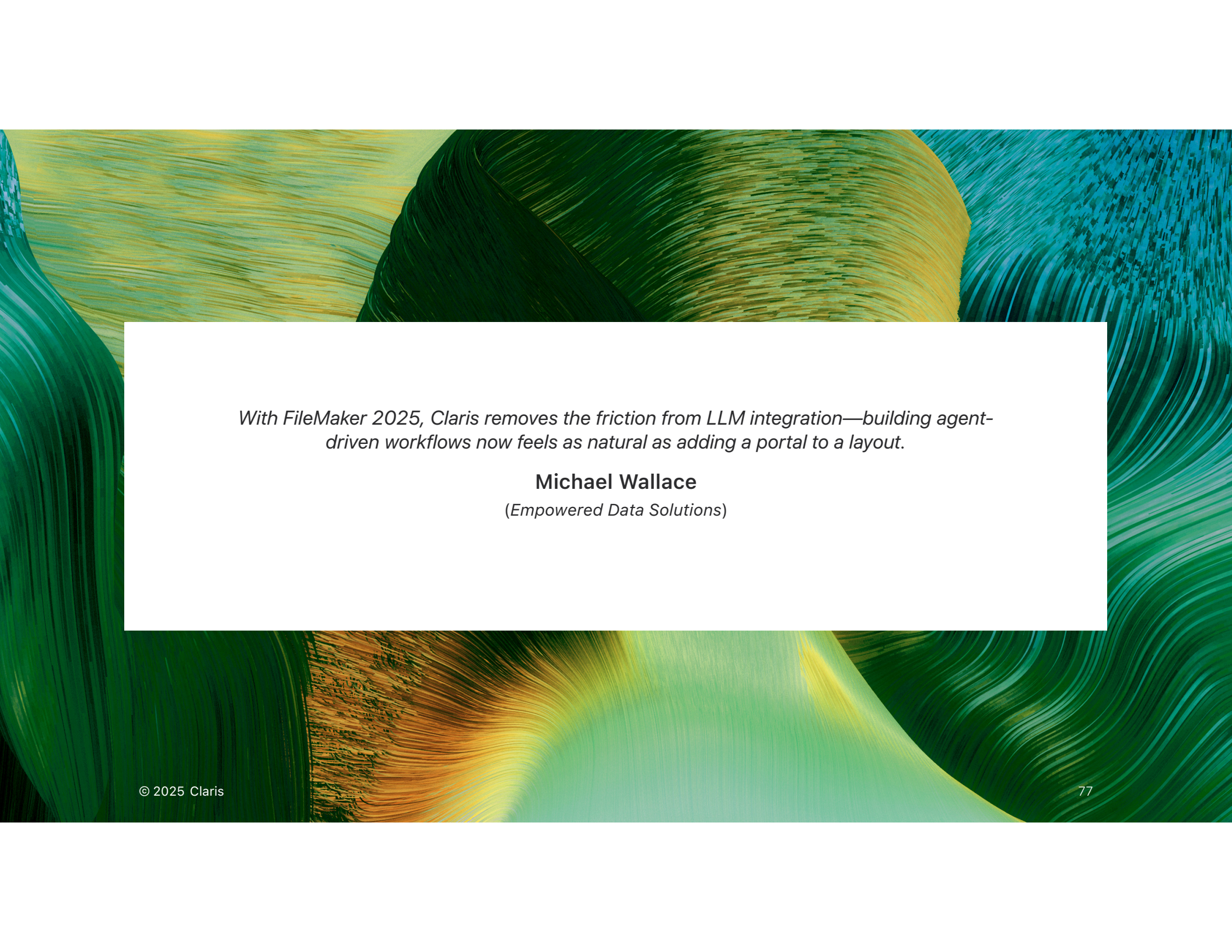
Overall, WebHook support in FileMaker 2025 empowers developers to build more dynamic, responsive, and integrated custom solutions, leveraging real-time data events to enhance functionality and user experience.





## Developer Quotes for FileMaker 2025





*With FileMaker 2025, Claris removes the friction from LLM integration—building agent-driven workflows now feels as natural as adding a portal to a layout.*

**Michael Wallace**  
*(Empowered Data Solutions)*



***Easy win! Perform Find with Natural Language***

*This new script step is exactly what FileMaker needed. Just grab a user's question in plain English and boom—FileMaker turns it into a proper find request and delivers the results. It's so straightforward to set up that this is the easiest way to some AI Magic to your FileMaker applications.*

**Todd Geist**

*(Proof+Geist)*






### ***Power Users: Generate Response From Model***

*This single script step packs serious AI power—you can build actual AI agents that tap into your FileMaker scripts and functions as tools. Throw in a web viewer and you can build streaming Chat experiences similar to what you see with ChatGPT and Claude. If you learn how to master this script step, you will have a very good understanding of how to build powerful AI driven workflows into your FileMaker applications.*

**Todd Geist**

*(Proof+Geist)*

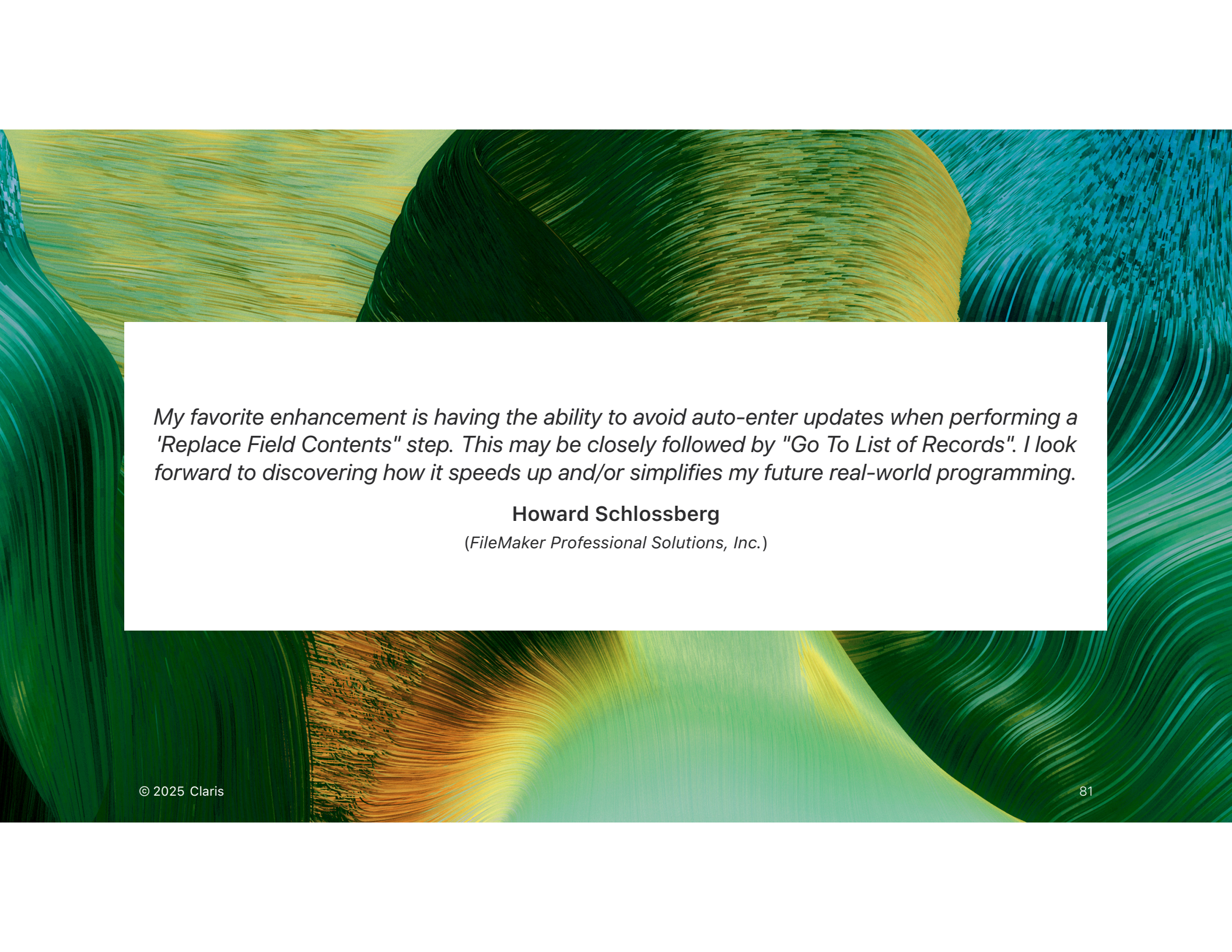




*One of my favorite new features in FileMaker 2025 is the improvements to the Let's Encrypt support. Not only is it now supported on all platforms, but now it's just as easy as it should be. Click on a button, put in the domain name and then it will be installed, setup and renewed automatically.*

**Claus Lavendt**  
*(DataManix)*






*My favorite enhancement is having the ability to avoid auto-enter updates when performing a 'Replace Field Contents' step. This may be closely followed by "Go To List of Records". I look forward to discovering how it speeds up and/or simplifies my future real-world programming.*

**Howard Schlossberg**

*(FileMaker Professional Solutions, Inc.)*






*I love that you upgraded the SQL engine. The effort to modernize it and add a few new commands gives hope that we see more in the future.*

**Christian Schmitz**  
(MonkeyBread Software)





*I am really glad to see FileMaker 2025 making the first step towards significantly faster calculation engine by making JSON array building more than twice as fast and accessing a JSON array element even 12 times faster compared to version 21.1.1; and 15 times faster when using the new ParseJSON function!*

**HOnza Koudelka**

(24U Software)

# Key FileMaker 2025 Resource Links

## Public Links Available at Launch

- [Online Help](#)
- [Technical Specifications for FileMaker 2025](#) —live at launch
- [Engineering Blogs](#)
- Read Me's —live at launch
- [Claris Academy learning resources](#)
- [Find a Claris Partner for development assistance](#)
- [Claris Community forum](#)
- [Claris Community Live sessions](#)



The background of the slide is an abstract composition of organic, wavy shapes. On the left, there are deep green, layered, leaf-like structures. On the right, there are lighter green and blue, more pointed, wave-like structures. The overall effect is a sense of depth and movement.

**Thank you**