NETTPOST

ESRI ARCGIS FOR M-FILES ADD-ON SOLUTION DESCRIPTION
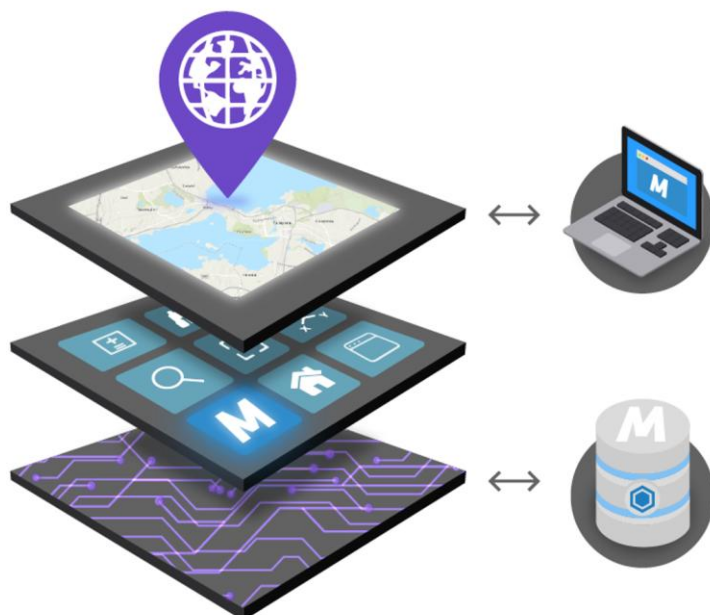
LAST UPDATED APRIL 29, 2025

VERSION 2.1

Contents

1. Introduction

The Esri ArcGIS for M-Files combines the word of M-Files and maps. It seamlessly integrates your geospatial data with powerful document management capabilities, breaking down information silos and enhancing decision-making across your organization. This integration connects your ArcGIS maps with M-Files, enabling flow of data and documents that saves time, ensures accuracy, and improves collaboration.

Key Features of The Esri ArcGIS for M-Files

- **Data Integration:** Seamlessly integrate data from your ArcGIS map database into M-Files, ensuring a unified information repository.

- **Object Visualization From M-Files to ESRI ArcGIS:** Select an object in M-Files and visualize it on the map, navigating directly to the correct location.

- **Object Visualization From ESRI ArcGIS to M-Files:** Select an object in the map and navigate to the corresponding object or view in M-Files.

- **M-Files Widget in ESRI ArcGIS:** Integrate M-Files with ESRI ArcGIS as a widget, enabling you to perform the above functions within your ESRI ArcGIS environment. This allows you to use M-Files seamlessly within ESRI ArcGIS for enhanced functionality and efficiency.

This document describes the high-level architecture and the key features and benefits of Esri ArcGIS for M-Files (later: add-on). For instructions on taking the add-on modules into use, see the NettPost Solution Catalog

ADD-ON OVERVIEW

ARCGIS WEB MAPS IN M-FILES DESKTOP CLIENT

M-FILES EMBEDDED TO ARCGIS WEB APPLICATIONS

DATA SYNCHRONIZATION FROM ARCGIS FEATURE SERVICES TO M-FILES VAULTS

Figure 1: Add-on overview

1.1 Key Benefits

- **Boost Productivity**: Eliminate time-consuming switches between systems. Access all documents directly from your ArcGIS maps.

- **Enhance Decision-Making with 360° Views**: Gain a complete picture of data by linking geospatial data with crucial documentation in real-time.

- **Streamline Collaboration**: Ensure all team members work with the latest, approved versions of documents, regardless of their location or role.

- **Minimize Risks and Errors**: Reduce costly mistakes by having the most up-to-date information at your fingertips, always linked to the correct geographic context.

- **Strengthen Compliance**: Simplify adherence to regulations with easy access to permits, checklists, and critical documentation within your familiar ArcGIS interface.

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2. Industry use cases

The ESRI ArcGIS for M-Files integration offers significant advantages across various industries, including:

Oil and Gas: Efficiently manage exploration data, project plans, regulatory compliance documents, and environmental impact reports. Enhance situational awareness with geospatial data integration.

Energy and Utilities: Manage asset information, maintenance logs, regulatory compliance, and emergency response plans. Enhance field operations with real-time data access and visualization.

Municipalities: Streamline urban planning, zoning regulations, infrastructure and property management, and public works projects. Improve access to public records and compliance documentation.

Telecommunications: Oversee network infrastructure, site maintenance, and expansion projects. Integrate asset data and regulatory documents with geographic information systems.

Real Estate and Land Development: Facilitate land use planning, property management, and development projects. Access zoning laws, environmental impact assessments, and property documents directly within geospatial maps.

Transportation and Logistics: Optimize route planning, fleet management, and logistics operations. Integrate transportation data with regulatory documents and permits.

Public Safety and Emergency Services: Coordinate disaster response, emergency planning, and public safety operations. Integrate real-time incident data with emergency response plans and resources.

Construction and Engineering: Manage project documentation, site plans, and regulatory compliance from a central location. Visualize construction progress and site data within geospatial maps.

Agriculture: Manage land use planning, crop monitoring, and environmental compliance. Link agricultural data with documentation on soil health, water usage, and regulatory standards.

Environmental Management: Monitor and manage environmental impact assessments, conservation efforts, and regulatory compliance. Link geospatial data with environmental reports and permits.

3. Architecture

The add-on consists of three core components that work together to create a seamless connection between your ArcGIS maps and the M-Files document management system:

M-Files Connector for ArcGIS:

- Synchronizes features and attributes from ArcGIS Feature Service layers as M-Files objects and properties

- Extends M-Files external object type functionality for seamless integration

M-Files Add-In for ArcGIS Web Application:

- Embeds M-Files UI directly within ArcGIS Web Applications

- Enables viewing, editing, and managing M-Files content without leaving your ArcGIS environment

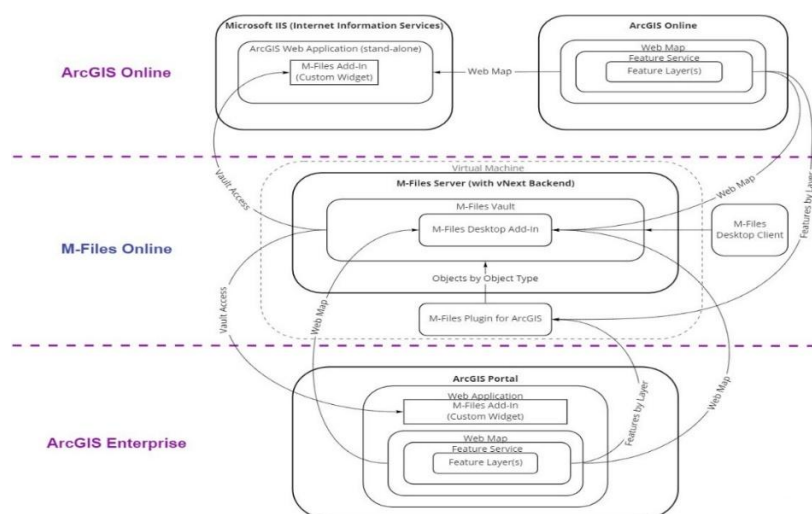- Supports drag-and-drop document uploads, metadata editing, and workflow management

ArcGIS Add-In for M-Files Desktop:

- Brings ArcGIS map functionality directly into the M-Files Desktop client

- Allows users to visualize geographical context for documents and objects within M-Files

Key Architectural Point: The M-Files Add-In for ArcGIS Web Application relies on M-Files Server to power its integration. This simplifies the experience, ensuring a consistent M-Files experience within ArcGIS and minimizing the need for complex configuration on the ArcGIS side.

For detailed technical specifications and setup instructions, refer to our comprehensive technical documentation.

Contact us at post@nettpost.no for more technical information.

Figure 5: High-level architecture.

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4. Transition from Web App Builder to Experience Builder

As part of our ongoing commitment to leveraging the latest technologies, the Esri ArcGIS for M-Files now fully supports ArcGIS Experience Builder. This aligns with Esri's strategic direction, as they are transitioning from Web App Builder to the more advanced Experience Builder platform.

Key Differences and Benefits

1. **Enhanced Flexibility**: Experience Builder offers an intuitive drag-and-drop interface, enabling easier creation of custom web applications without extensive coding.

2. **Responsive Design**: Applications built with Experience Builder are inherently responsive, ensuring a consistent experience across desktop and mobile devices.

3. **Expanded Widget Library**: Experience Builder provides a wider range of pre-built widgets and improved customization options, allowing for more sophisticated and tailored applications.

4. **Modern Architecture**: Built on React and TypeScript, Experience Builder offers a more robust and scalable foundation for web applications.

5. **Improved Performance**: Experience Builder applications generally deliver better performance and faster load times compared to their Web App Builder counterparts.

Impact on M-Files Integration

The Esri ArcGIS for M-Files has been optimized to take full advantage of Experience Builder's capabilities. This ensures seamless integration between M-Files and the latest ArcGIS technology, providing an enhanced user experience and improved functionality.

For new implementations, we recommend using the Experience Builder integration to leverage its advanced features and ensure long-term compatibility with Esri's platform direction.

Our team is committed to supporting both new and existing customers in adopting this technology. We provide comprehensive documentation and assistance to ensure a smooth implementation process.

By embracing Experience Builder, we're ensuring that our solution remains at the forefront of GIS and document management integration, offering you the most advanced tools to manage your geospatial data and related documents efficiently.

For more information on Experience builder:
[Step from ArcGIS Web AppBuilder to ArcGIS Experience Builder - Resource Centre | Esri UK](#)
[FAQ—ArcGIS Experience Builder | Documentation](#)

5. Security and compliance

- Leverage existing M-Files and ArcGIS permission settings for seamless access control

- Optional Azure Active Directory integration for enhanced security and single sign-on capabilities
- Ensure data integrity and version control across all integrated systems

6. Licensing

The NettPost's Esri ArcGIS for M-Files is available to purchase for all M-Files platform subscription customers. All add-on users need to have a valid M-Files license.

ArcGIS Add-In for M-Files Web Application requires an active server license with ArcGIS Add-In license module enabled. For more information, see https://www.m-files.com/user-guide/latest/eng/License_management.html?hl=license.

The ArcGIS Add-In for M-Files Desktop requires a valid NettPost vault application license. This is provided by NettPost by request to license@nettpost.no

The ArcGIS Connector for M-Files does not require any separate license, other than a valid M-Files Server license.

7. Change History

The table below describes the essential changes by document version.

VERSION	DATE	ESSENTIAL CHANGES
1.0	2020/21/04	Initial version.
1.1	2021/07/01	Plugin changed to connector to reflect the configuration changes.
1.2	2023/07/06	Updated to NettPost
1.3	2023/09/12	Updates to new solution catalog Hubshare
2	2024/08/25	Major revision: - Restructured and expanded document - Added new sections: Key Benefits, Industry Use Cases, Transition from Web App Builder to Experience Builder - Expanded Introduction with key features - Reorganized and expanded Architecture section - Added Security and Compliance section - Updated Licensing information - Updated Reference Documents - Overall language update - Removed some detailed technical information - Replaced specific example use cases with comprehensive industry use cases
2.1	2025/04/29	Update to the product naming