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AI Workflows in FME

Put AI to work in your data pipelines

This hands-on training course is designed for FME users who want to apply AI directly inside FME Form. Through guided instruction and practical exercises, participants will learn to connect to Vision AI services, structure outputs as clean JSON, and build agentic, self-correcting workflows that are changing how spatial data gets processed.

Whether you're new to AI or have already experimented with it, this course will give you the confidence and working techniques to integrate AI into your FME pipelines immediately.

Course Objectives

- Call Vision AI services from FME Form and interpret the responses
- Structure AI outputs as clean, usable JSON for downstream processing
- Apply agentic AI patterns including Reflective AI to build self-correcting workflows
- Use spatial partitioning to target AI analysis at the areas that matter, reducing cost and improving speed
- Combine multiple AI providers within a single FME workspace
- Build workflows that are modular, repeatable, and production-ready

Course Content

AI in the FME Platform. Understand FME's "Any AI, All Data" architecture and the full ecosystem of AI connectors — covering OpenAI, Google Gemini, Anthropic, Amazon Bedrock, Azure, and Vertex AI. Learn how FME enables flexible, model-agnostic integration without rewriting your workflows.

Exercise 1: Vision AI. Build your first Vision AI workspace in FME Form. Send image data to an AI service, handle the response, and format outputs for use downstream. Work with real open data from New Zealand

Structured Response Outputs. Move beyond free-text AI responses. Learn how to prompt for structured JSON outputs and map them cleanly into FME attributes essential for building reliable, automated pipelines.

Exercise 2: Structured Responses. Hands-on practice structuring AI responses, parsing JSON, and preparing outputs for further transformation or writing.

Agentic AI. Understand the principles behind agentic AI, autonomous task execution, dynamic decision-making, and multi-step adaptive processes and how FME simplifies what other frameworks make complex.

Exercise 3: Reflective AI. Apply a Reflective AI design pattern: build a workspace that generates an output, critiques it using a second AI model, then refines the result iteratively. A practical approach to AI-powered quality assurance.

Spatial Partitioning. Learn why processing large spatial datasets with Vision AI is expensive and slow and how spatial partitioning solves it. Divide your area of interest into grids, tiles, or polygons and target AI analysis only where it's needed.

Exercise 4: Spatial Partitioning. Put it all together: build a workspace that uses spatial partitioning to control which areas are sent to a Vision AI model, with parallel processing for speed and incremental update logic for efficiency.

Tips, Troubleshooting and Best Practices. Learn from Locus experts in a virtual classroom setting, where questions and real-world scenarios are encouraged. Covers managing API costs, rate limits, and building resilient production-ready pipelines.