

**Course Title:** Revit MEP Advanced – Families

**Course Code:** REV-2MF

**Duration:** 2 Days

## Courseware Description

The family creation workshop is designed for users who wish to learn about the parametric family tools from simple to advanced objects. While theory will be covered, there will be time allocated during sessions for practical application and to explore the approach behind creating HVAC, Electrical, Fire Protection and Hydraulic equipment and component families.

## Objectives

After completing this course, students will be able to:

- Understand how families are created
- Understand the difference between in-place and standard component families
- Know how to approach various family types and knowing which templates to use
- Be comfortable with locking geometry to reference planes to generate parametric relationships
- Creating type and instance parameters
- Creating multiple types from a single family, with adjustable parameters and the use of Catalogue files.
- Setting visibility options, determining how families appear in plan views, elevations and when cut.
- Creating categories and sub categories within families
- Understanding nested families
- Determining what information can be scheduled as part of family properties
- Understanding formulas and how they can be used in family creation
- Understanding connectors and their relationships to geometry and systems.

## Who Should Attend

This courseware is designed for experienced users of Revit MEP.

## Prerequisites

It is recommended that students have a working knowledge of:

- Students should have completed the **Revit MEP Introduction (REV-1M)** course or have equivalent experience using Revit MEP. Building Services design, drafting, or engineering experience is highly recommended
- Microsoft® Windows® XP or Microsoft® Windows® 2000

## Course Outline

### Overview of Family Creation Concepts:

Defining the desired outcome and purpose of a family to be created and the difference between in-place and standard component families

### Basic 3D Geometry:

- Extrusion
- Blend
- Sweep
- Revolve
- Sweep Blend

### Basics:

- Basic family types: Hosted vs non-hosted, stand alone templates/ 2-d profiles/ annotations/ creating title blocks

### More complex applications:

- Reference lines and planes –'Is' references
- Importance of correct dimensioning
- Creating labels and parameter types
- Categories and sub categories
- Object Styles
- Nested Families
- Adding parameters that will schedule and/or be available in element properties
- Adding Connectors.