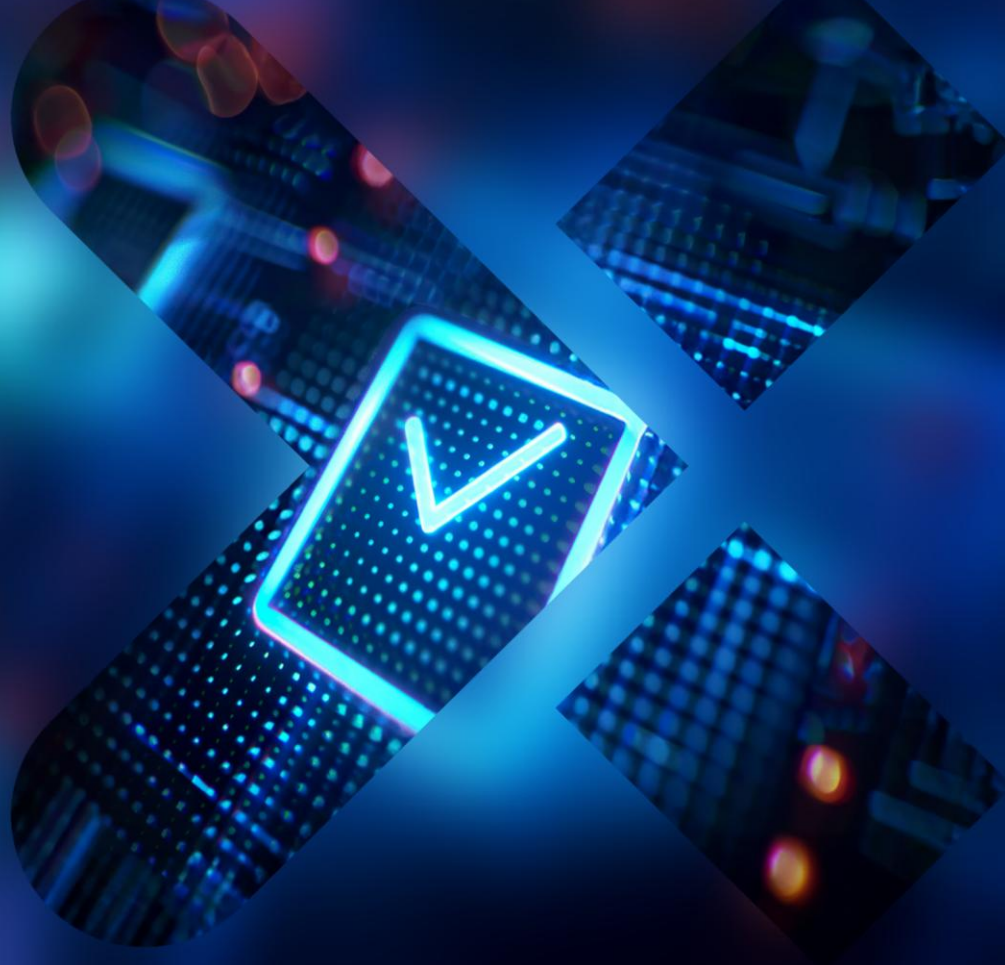




GRID SOFTWARE UNIVERSITY

Gridscale X Flexibility Manager Training Catalogue

SIEMENS

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Training Philosophy

Siemens has developed a broad set of courses specifically to train our customers on the Gridscale X Flexibility Manager use cases, as well as technical onboarding and operational adoption. Our training program utilizes a hands-on approach integrating a role-based methodology throughout the curricula.

Siemens' comprehensive training program is designed to prepare customer personnel for implementation, onboarding and adoption of the Newest Gridscale X use cases. This program is based on years of experience as a supplier and industry leader in energy sector and training.

Siemens is committed to preparing utility employees to respond in the most appropriate way to conditions that may arise during the life of the system. Siemens recognizes the importance of adequately trained personnel for the continued success of the customer's Gridscale X Flexibility Manager solution. Customer objectives of preparation for technical onboarding and operational adoption of the Customers are closely aligned with Siemens' training philosophy and are integral to the training program proposed.

Flexibility is built into our training model, and Customer can choose from a large variety of courses and view on our [Siemens Grid Software \(GSW\) Landing page](#) and further on our [Siemens GSW Learning Management System \(LMS\)](#) to see current course catalogue, offerings and schedules.

This section describes the Siemens training programs in general. There is a list of the proposed courses and optional Training. The course descriptions of each course proposed to Customer are included in the offer.

Training Program

Gridscale X Flexibility Manager Training Courses are arranged into categories based on common roles and responsibilities of the typical business and associated implementation approach. This structure is offered as a guideline to assist customers in developing the best training plan with the support of Siemens for their employees, thereby providing a value-added approach.

Training Plan

Siemens has proposed base training and provides additional training options to meet Customer's requirements.

The Training Plan clarifies the responsibilities of Siemens, Customer, the instructors, and the students in executing a successful plan. The objectives of each course, the sequencing of the classes, and the location and time of each class will be selected to meet personnel schedules and project milestones.

Course Descriptions

Standard Training Course Descriptions are provided including the following items:

- Course Description
- Course Objectives
- General Information (Code and Duration)
- Prerequisites
- Goals
- Topics

The Training Plan includes information on the training of custom course offerings and standard offerings. The Training Plan will include the following additional details:

- Location
- Course Dates
- Delivery options

Delivery Methods

Our courses are available via multiple delivery methods:

Classroom	Instructor-led training session at a formal classroom setting at Siemens
Remote	Live, Instructor-led training session given via online conferencing tools
On-Site	Instructor-led training session provided at the customer facility in a training environment supplied by the customer
eLearning	Pre-recorded training session provided on demand
Blended Learning	A combination of eLearning and instructor led training
On-The Job	Execute tasks and get hands-on experience, under the supervision of a trainer

You can see the available Delivery Methods in the general information section of each specific course.

Language

Our online courses are readily available in **English**, with provisions for other languages that can be arranged for certain courses upon advance request.

For specific language requirements or to inquire about translation services, we encourage customers to contact the Siemens Training Department.

Role-Based Training

Siemens supports a role-based training curriculum. The course descriptions specify Job Roles as the target audience, as well as noting prerequisite skills. Job roles are associated with job activities. Often one person will fulfill multiple job roles and will benefit from the training recommended by roles as listed below:

- Project Managers
- Data Modelling Engineers
- Systems and Solution Integrators
- Users/Operators

Training Material

Training materials are specifically developed for Gridscale X Flexibility Manager training courses. Siemens shall provide all necessary training materials, including course manuals and reference material in PDF (Portable Document Format) files.

Each trainee shall receive individual copies of the training materials. The contents of Gridscale X Flexibility Manager training materials are confidential and proprietary, and usage is protected by Siemens copyright and to be used for internal use only.

Training Methods

There are several ways to acquire training in the use of Gridscale X Flexibility Manager and the software that supports it. Instructor-led training is delivered by a combination of Siemens instructors and trained consultants. Siemens instructors provide training on Gridscale X Flexibility Manager use cases, building the grid model and interfaces. Siemens instructors are Gridscale X Flexibility Manager professionals who know the applications and the purpose of the software application.

Instructor-led training can be proposed as a dedicated class or as individual enrollments in a scheduled class. Dedicated classes can be arranged virtually, customer site and/or a Siemens facility. Most scheduled classes are conducted at a Siemens' facility. The number of students in a class depends on the customer's requirements, the availability of equipment, and the level of instructor-student interaction.

Siemens Training Services offers classes on multiple-rate schedules: open enrollment and private dedicated classes.

- **Open enrollment:** An open enrollment rate indicates the per student price to attend a class. Open enrollment training is conducted at a Siemens facility. Since multiple customers may attend the same class, the course content covers Siemens' base products. Nevertheless, our instructors frequently answer customer-specific questions.
- **Dedicated classes:** A private class allows the customer (project) to select up to ten students who can attend the class for a fixed price. Since the class is conducted for a specific customer, Siemens Training Services can offer customization services.

For registration, or if you want to get more information about our courses or have special training requests, please reach out to your local Siemens sales partner, or contact us directly at gridsoftware-training@siemens.com.

Gridscale X Flexibility Manager Training Programs

The Gridscale X Flexibility Manager training programs are outlined below. Each Training Program is created from individual courses which are referenced and described in the [Training Course Index](#).

The following training programs are all related to Flexibility Manager courses:

Flexibility Manager for Project Managers

The **Flexibility Manager for Project Managers** training program includes the following courses:

1. [Introduction to Gridscale X](#)
2. [User Training for Flexibility Manager](#)
3. [Onboarding and Adoption Methodology](#)

Access the training program here: [Link](#)

Flexibility Manager for GIS Engineer

The **Flexibility Manager for GIS Engineers** training program includes the following courses:

1. [Introduction to Gridscale X](#)
2. [User Training - Gridscale X Grid Model Builder](#)
3. [User Training - Gridscale X Flexibility Manager](#)
4. [Building the Grid Model for Flexibility Manager](#)

Access the training program here: [Link](#)

Flexibility Manager for Integrators

The **Flexibility Manager for Integrators** training program includes the following courses:

1. [Introduction to Gridscale X](#)
2. [Gridscale X Architecture and APIs](#)
3. [User Training - Gridscale X Flexibility Manager](#)
4. [Flexibility Manager - Integrating External Systems](#)

Access the training program here: [Link](#)

Flexibility Manager for Operators

The **Flexibility Manager for Operators** training program includes the following courses:

1. [Introduction to Gridscale X](#)
2. [User Training - Gridscale X Flexibility Manager](#)

Access the training program here: [Link](#)

Gridscale X Flexibility Manager Course Index

The index below outlines the list of courses available for Gridscale X Flexibility Manager:

General Information

Course Code	Course Name	Delivery Method	Duration
GSW-U-GridscaleX_EN_01	Introduction to Gridscale X	eLearning	10 minutes
GSW-U-GridscaleX_EN_02	Onboarding and Adoption Methodology	eLearning	50 minutes
GSW-U-GridscaleX_EN_03	Gridscale X Integrations and APIs	eLearning	60 minutes
GSW-U-GridscaleX-GMB_EN_01	User Training - Gridscale X Grid Model Builder	eLearning	50 minutes
GSW-U-GridscaleX-FM_EN_01	User Training - Gridscale X Flexibility Manager	eLearning	50 minutes
GSW-U-GridscaleX-FM_EN_02	Building the Grid Model for Flexibility Manager	eLearning	40 minutes
GSW-U-GridscaleX-FM_EN_03	Flexibility Manager - Integrating External Systems	eLearning	40 minutes

Introduction to Gridscale X

Objectives

This course will enable us to understand the strategic purpose of Gridscale X while exploring its comprehensive product portfolio. We will also examine outstanding success cases and evaluate the positive impact that Gridscale X has had on the operations of different clients.

General Information

Course Code	GSW-U-GridscaleX_EN_01
Delivery Method	eLearning
Duration	10 minutes
Language	English

Target Audience

All

Prerequisites

None

Content

Module 1: Introduction to Gridscale X - Covers the foundation of Gridscale X, its product portfolio and analyzes success cases demonstrating impact on electrical distribution networks.

Onboarding and Adoption Methodology

Objectives

Participants will understand the complete onboarding lifecycle and be able to apply the methodology to ensure successful project start-up.

General Information

Course Code	GSW-U-GridscaleX_EN_02
Delivery Method	eLearning
Duration	50 minutes
Language	English

Target Audience

All

Prerequisites

None

Content

- Module 1 - Technical Onboarding & Operational Adoption
- Module 2 - Planning for Success
- Module 3 - Technical Onboarding Execution
- Module 4 - Operational Adoption & Transformation
- Module 5 - Business Value and Customer Success

Gridscale X Integrations and APIs

Objectives

General training is tailored for IT professionals, including customer IT teams and system integrators, aiming to facilitate the integration of Gridscale X offerings into a customer's environment using Gridscale X interfaces.

The audience will gain valuable insights into a high-level integration architectural blueprint, illustrating the seamless integration of Gridscale X Products with the customer's IT/OT systems. Additionally, the training provides an understanding of the technology stack powering Gridscale X interfaces and the security framework. It also offers recommended approaches and best practices for developing integrations, equipping architects and developers to design efficient and optimal solutions.

General Information

Course Code	GSW-U-GridscaleX_EN_03
Delivery Method	eLearning
Duration	60 minutes
Language	English

Target Audience

- IT Engineer
- Solution Architect
- System Integrator

Prerequisites

- [Introduction to Gridscale X](#) course
- Basic Understanding of APIs and system integration
- Programming Skills (e.g., Python, Java, JavaScript) - (Optional but Recommended)
- Familiarity with IT Infrastructure and Security Principles
- Relevant Industry Knowledge and familiarity with the energy domain where Gridscale X is applied (Optional)

Content

- **Module 1: Integration architecture** - Overview of Gridscale X integration architecture, component interactions, layered design and product touchpoints with utility systems.
- **Module 2: Security framework** - Explores authentication, authorization, transport security and data protection strategies across the platform.
- **Module 3: Integration patterns** - Examines various integration patterns to guide architects and developers in designing optimal solutions.
- **Module 4: Best practices** - Provides guidance and best practices for designing, implementing and maintaining integrations with Gridscale X.

User Training - Gridscale X Grid Model Builder

Objectives

This course is designed to help understand the strategic importance of creating a digital twin that provides a comprehensive view through digital representation. To develop this digital twin, we use the corporate GMB tool, which enables us to perform data modeling efficiently.

Throughout the course, we will review step by step the complete model creation process, from initial preparation to operational implementation.

General Information

Course Code	GSW-U-GridscaleX-GMB_EN_01
Delivery Method	eLearning
Duration	50 minutes
Language	English

Target Audience

Grid engineer

Prerequisites

- [Introduction to Gridscale X](#) course
- Basic knowledge of electrical distribution networks
- Knowledge of GIS and asset management

Content

- **Module 1: Overview of Grid Model Builder** - Analyzes network modelling, explores GMB capabilities and shows how the digital twin eliminates data silos.
- **Module 2: Modeling process with Grid Model Builder** - Details the end-to-end process for modelling customer data, from initial preparation to export and operation.
- **Module 3: Best practices**

User Training - Gridscale X Flexibility Manager

Objectives

This training is specifically designed to provide detailed knowledge of one of the Gridscale X portfolio products: Flexibility Manager. Throughout the course, we will explore in-depth the service's capabilities and functionalities, analyze its main use cases Detect & Predict Grid Congestion and Solve and Prevent Congestion, and examine practical application scenarios in real operational environments.

The main objective is to train grid operators who wish to thoroughly understand how Flexibility Manager works, providing them with the necessary skills to operate the tool with confidence and efficiency in their daily activities, thereby optimizing the operation of their distribution networks.

General Information

Course Code	GSW-U-GridscaleX-FM_EN_01
Delivery Method	eLearning
Duration	50 minutes
Language	English

Target Audience

Grid Operator, Project Managers

Prerequisites

- [Introduction to Gridscale X](#)
- Access to Gridscale X Flexibility Manager

Content

- **Module 1: Introduction to Flexibility Manager** - Explores technical functionalities of Flexibility Manager and its strategic positioning in electrical grid management.
- **Module 2: Detect and Predict Grid Congestions Use Case** - Provides a comprehensive analysis of the Detect & Predict Congestion use case and demonstrates execution of its processes.
- **Module 3: Solve and Prevent Congestions Use Case** - Provides a comprehensive analysis of the Solve and Prevent Congestion use case and demonstrates execution of its processes.

Building the Grid Model for Flexibility Manager

Objectives

Participants will learn the modelling requirements for Flexibility Manager and why each attribute is necessary. They will be able to create compliant models that enable LV transparency, grid impact scoring and connection request use cases.

General Information

Course Code	GSW-U-GridscaleX-FM_EN_02
Delivery Method	eLearning
Duration	40 minutes
Language	English

Target Audience

Grid engineer

Prerequisites

- [Introduction to Gridscale X](#) course
- [User Training Gridscale X - Grid Model Builder](#) course
- Basic knowledge of electrical distribution networks
- Knowledge of GIS and asset management

Content

- **Module: Building the Grid Model for Flexibility Manager** - Demonstrates common modelling errors that occur when required attributes are omitted.
- **Data Preparation - Flexibility Manager (Job Aid)** - Reviews necessary modelling requirements, focusing on data consistency, validation rules and output structure to ensure a correct Flexibility Manager model.

Flexibility Manager - Integrating External Systems

Objectives

This is a comprehensive technical training course designed to equip participants with the knowledge and practical skills necessary to successfully integrate the Flexibility Manager product within diverse customer IT/OT landscapes. This course addresses the critical challenge of connecting Flexibility Manager with external systems to enable effective congestion management in electrical distribution networks.

The course recognizes that Flexibility Manager operates within a complex ecosystem of utility systems, including SCADA/DMS platforms, Asset Management Systems, GIS databases, Meter Data Management systems, and various market platforms. Understanding how to properly integrate these systems is essential for unlocking the full potential of Flexibility Manager's capabilities in detecting, predicting, solving, and preventing grid congestions.

General Information

Course Code	GSW-U-GridscaleX-FM_EN_03
Delivery Method	eLearning
Duration	40 minutes
Language	English

Target Audience

Integrators

Prerequisites

- [Introduction to Gridscale X](#) course
- [Gridscale X Integrations and APIs](#) course
- Basic knowledge of electrical distribution networks
- Knowledge of GIS and asset management

Content

- **Module:** Flexibility Manager - Integrating External Systems

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