Education Services
Dassault Systemes Delmia Corp. offers educational services in all DELMIA software configurations. The courses listed here are offered through Education Services in North America and reflect the majority of non-specific training needs. Additional training and consulting services can be arranged by contacting your account representative or calling 01.248.267.9696.

Catalog Organization
This catalog has two sections: CORE courses and OPTIONS.

CORE courses focus on skill building in a specific configuration and are part of complete learning plans involved in Track Certification.

OPTIONS are shortened courses that are designed to help manage training time efficiency by offering exposure to a second configuration that may also be implemented in the customer’s environment. D5 Consulting OPTIONS are also included which are geared toward more specific customer needs relative to the D5 software architecture.

Learning Plans and Tracks
Learning Plans are those courses (or competencies) that are necessary to complete Certification levels for the different Tracks. They are identified with the CORE courses.

There are five tracks: ASSEMBLY, ROBOTICS, MACHINING, PROCESS ENGINEERING, and INFRASTRUCTURE. Each track has three levels of proficiency: SPECIALIST, MASTER, and EXPERT. The majority of courses offered in this catalog are for the Specialist level under the assumption that Expert and Master level proficiencies are developed in "live" environments.
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General Information About Dassault Systemes Delmia Corp. Training Services

Training Schedules
We organize our courses to meet the needs of our customers, and we will make every effort to accommodate their wishes. If you require special scheduling, please contact us at 248.267.9696 or email us at DELMIA.services.training@3ds.com

Location
Courses are held at Dassault Systemes Delmia Corp. in Auburn Hills, Michigan or at the customer’s site by request. Custom courses can also be made available through our Services Group.

Number of Participants
Courses held at Dassault Systemes Delmia Corp. are generally limited to eight participants. Accommodations can be made for larger groups if necessary. Courses at the customer’s site are priced for four, with the option to add participants.

Course Instruction Fees
The course participation fees are based on our price list from January 1, 2003. We reserve the right to make changes. Fees are determined by location (Dassault Systemes Delmia Corp. or Customer) and duration (number of days). The course fees include instructional materials. Classes at Dassault Systemes Delmia Corp. also include daily continental breakfast and one lunch.

Course Level
There are three levels denoting course depth: Specialist, Master and Expert. The Specialist level is designed for novices. The Master level is for those who possess a more advanced knowledge of the software. Expert denotes courses for those who are experienced in consulting services.
**Travel Expenses**
For courses held at the customer’s location, we will, in addition to the course fees, charge you for the travel and living expenses incurred by our instructors.

**Registration**
Are you interested in participating in one of our training courses? Or, would you like further information on course contents and schedules? Then please contact us at 248.267.9696 or email us at DELMIA.services.training@3ds.com.

**Cancellations**
The cancellation deadline for DELMIA-based courses is two weeks before the start of the session. For cancellations received after this deadline and/or for participants who fail to appear, we will charge the full course fees. However, in the event of such a cancellation, you may send a replacement. Please submit all cancellations in writing.

**Participants Failing to Appear**
Those participants who fail to appear for a course, or who only attend it part time, are still obligated to pay the full course fees.
These "Specialist" level courses launch new Users in the ability to implement DELMIA software within their job areas.
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-01-ASY-dhq

At Customer Site Course Code: EDU-01-ASY-cust

DPM Assembly CORE Course
In DPM Assembly, the single, unified interface provides the capability to link and view product data, author and view assembly sequences and processes, and link each process step to the manufacturing resources. In this course the software is applied to the development of a project as the methodology for introducing the functionality and capability of the solution. The process plan and supporting resources will be created, then the construction of the simulation is undertaken. Finally, the simulation is analyzed, modified, and output files and reports are generated. Tool Validation is addressed for those customers who have the Human software license.

As part of a complete learning plan with an Assembly Manufacturing focus, DPM Assembly plays a key role. A suggested learning plan will contain:

1. DPM Assembly
2. Process Engineer (for those customers implementing an enterprise-wide solution)
3. Human Solutions
4. QUEST
5. Shop/Work

Course Content
DPM Assembly CORE Course = 3 Day Class

Create the Working Environment
- Set Options
- Creating the Catalog and Library
- Creating the 3D Layout

Create the Process Plan
- Create the Process Library
- Create the Process Plan

Create a Simulation
- Create and Edit Move Activities
- Use Dynamic Clash
- Add Advanced Motion

Enhance the Simulation
- Establish visibility and viewpoint
- Insert text, hyperlinks, delays and pauses
- Set AutoSync

Examine the Simulation
- Clash Detection and Reporting
- Measuring, Sectioning, and Annotation
- Distance, Band and Bind Analysis
- Gantt Chart
Create Output Files
  ◆ Create AVIs
  ◆ Create HTML Documentation

Tool Validation (Optional)
  ◆ Perform a tool validation
  ◆ Create a persistent tool validation
  ◆ Perform a tool validation with Human forearm

Available OPTIONS Packages = 2 days each
1. Human Option
   ◆ Build Human manikins and simulate tasks
2. Process Engineer Option
   ◆ Generate a macro-level process plan and import to DPM Assembly

Prerequisites
Familiarization with the basic features of the V5 environment is useful but not necessary

Course Length
The CORE course is 2 days. Each OPTION is 2 additional days.

Course Level
This is a "Specialist" level course

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-01-HAS-dhq

At Customer Site Course Code: EDU-01-HAS-cust

Hub Assembly CORE Course
This course is intended for new users of Assembly who are going to retrieve process data from Process Engineer. The process plan and supporting resources will be brought in from Process Engineer, and then the construction of the simulation is undertaken. Finally, the simulation is analyzed, modified, and output files and reports are generated. Tool Validation is addressed for those customers who have the Human software license. Engineering Intent is also addressed as a separate module for those customers who have that licensing arrangement. The software is applied to the development of a project as the methodology for introducing the functionality and capability of the solution.

As part of a complete learning plan with an Assembly Manufacturing focus, DPM Assembly plays a key role. A suggested learning plan will contain:

1. DPM Assembly
2. Process Engineer (for those customers implementing an enterprise-wide solution)
3. Human Solutions
4. QUEST
5. DPM Shop/Work

Course Content
Hub Assembly CORE Course = 3 Day Class

Create the Working Environment
- Set Options
- Import the Project

Create the Process Plan
- Use Pert Chart
- Link Data
- Verify the Process

Create a Simulation
- Create and Edit Move Activities
- Use Dynamic Clash
- Add Advanced Motion

Enhance the Simulation
- Establish visibility and viewpoint
- Insert text, hyperlinks, delays and pauses
- Set AutoSync

Examine the Simulation
- Clash Detection and Reporting
- Measuring, Sectioning, and Annotation
- Distance, Band and Bind Analysis
Gantt Chart
Create Output Files
- Create AVIs
- Create HTML Documentation
Tool Validation (Optional)
- Perform a tool validation
- Create a persistent tool validation
- Perform a tool validation with Human forearm
Engineering Intent (Optional)
- Loading Engineering Requirements
- Assigning Engineering Requirements
- Reconciling Engineering Requirements

Available OPTIONS Packages = 2 days each
1. Human Option
   - Build Human manikins and simulate tasks
2. Process Engineer Option
   - Generate a macro-level process plan and import to DPM Assembly

Prerequisites
Familiarization with the basic features of the V5 environment is useful but not necessary

Course Length
The CORE course is 2 days. Each OPTIONS package is 2 additional days.

Course Level
This is a Specialist level course

Course Schedule
Please see the posted schedule, or call for custom arrangements

Number of Participants Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at:
DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-01-APN-dhq

At Customer Site Course Code: EDU-01-APN-cust

Assembly Process Planner CORE Course
DELMIA Assembly Process Planner assists planners to author manufacturing assemblies from Engineering Bill Of Materials (EBOM).

The User can create an initial process from a Bill of Materials (BOM) or a manufacturing assembly template. Sequence can be defined for manufacturing assemblies. AST editor facilitates balancing of parts by drag/drop that automatically updates the manufacturing assemblies. Update of manufacturing assembly can also be done using Assignment Assistant which provides 3D preview.

As part of a complete learning plan with a Shipbuilding or Automotive Assembly Manufacturing focus, DPM Assembly Process Planner plays a key role. A suggested learning plan will contain:

1. DPM Assembly
2. Process Engineer
3. DPM Structures or
4. DPM Body in White

Course Content
Assembly Process Planner CORE Course = 2 Day Class

Generic APN
Getting Started
◆ Performing Initial Settings in E5 and V5
◆ Loading Project in E5 and initial project preparation, Manufacturing Assembly Template creation
◆ Setting Graphic Path in E5
◆ Setting options in V5 (PPR Tree, Load MA, APN Options)

Defining Assembly
◆ Loading Process and Product in V5
◆ Creating Initial Process
    Creating Initial Process from Manufacturing Assembly Template
    Launching AST Editor
    Loading EBOM
    Assigning Parts using Drag/Drop, AST Editor, Assignment Assistant
◆ Edit AST
    Creating new Assembly Operation
    Renaming Assembly Operation
    Deleting Assembly Operation
    Reallocating Parts
◆ AST Editor
◆ Assignment Assistant
  Specifying Assemblies to be Outsourced

**APN for Automotive users**

*Getting Started*

◆ Performing Initial Settings in E5 and V5
◆ Loading Project in E5 and initial project preparation
◆ Setting Graphic Path in E5
◆ Setting options in V5 (PPR Tree, Load MA, APN Options)

*Defining Assembly*

◆ Loading Process and Product in V5
◆ Creating Initial Process
  Creating Initial Process from EBOM
  Launching AST Editor
  Loading Fasteners for Process
  Assigning Fasteners
◆ Editing AST
  Creating new Assembly Operation
  Renaming Assembly Operation
  Deleting Assembly Operation
  Reallocating Parts
◆ AST Editor
◆ Assignment Assistant using joint information
  Reallocating Fasteners
◆ AST Viewer
◆ Assignment Assistant
  Checking validity of Assembly in Assignment Assistant
  Checking fastener assignment validity in Assignment Assistant
  Specifying Assemblies to be Outsourced

**Prerequisites**

Familiarization with the basic features of the V5 environment is useful but not necessary

**Course Length**

The CORE course is 2 days

**Course Level**

This is a Specialist level course

**Course Schedule**

Please see the posted schedule, or call for custom arrangements

**Number of Participants**

Maximum of 8

**Registration Fee**

Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
DPM Body in White

Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-01-BIW-dhq
At Customer Site Course Code: EDU-01-BIW-cust

DPM Body in White CORE Course
The DPM Body in White software allows Users to define and manage fasteners that hold parts together. DPM BIW also shows how the fasteners are distributed, and when and where they are available. We will apply the software to carry out fastening activity as the methodology for introducing the functionality, with an excellent balance between classroom instruction, demonstration, and hands-on work. The initial environment to carry out fastener activity is created and then detailed process planning, fastener assignment, resource assignment, and product assignment are undertaken.

Course Content
DPM Body in White CORE Course = 2 Day Class

Prepare Environment
◆ General Settings
◆ Display Settings
◆ Parameters & Measures Settings
◆ Infrastructure Settings
◆ DPM Settings
◆ AEC Plant Settings
◆ 3D Compass Settings
◆ Conventions Used

Create Process Plan
◆ Creating Initial Process Plan from Product
◆ Creating or Importing Process
◆ Importing Fasteners
◆ Using the Gantt Chart to Manipulate Activities
◆ Using the Process Flow Viewer

Assign Resources
◆ Using the Catalog Browser
◆ Assigning and Un-assigning Resources

Assign Products
◆ Assigning Products
◆ Un-assigning Products

Assign Fasteners
◆ Assigning Fasteners to Activities
◆ Performing Weld Gun Searches
◆ Using the Tool Selection Assistant
◆ Generating 2D Stack Function & 2D Sectioning
Available OPTIONS Packages = 2 days
  1. Process Engineer OPTION = 2 days
     – Generate a macro-level process plan

Prerequisites
Familiarization with the basic features of the V5 environment is useful but not necessary

Course Length
The CORE course is 2 days. The OPTIONS course is 2 additional days.

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-02-IGP-dhq
At Customer Site Course Code: EDU-02-IGP-cust

IGRIP CORE Course
This course teaches participants how to create workcells, which leads to program creation. Participants learn how to simulate several devices simultaneously and how to create collision detection between any of the devices in the workcell. This course further demonstrates how the IGRIP simulation programs may be post-processed into robot-native languages for downloading to actual robot controllers, also known as "offline programming".

Course Content
IGRIP CORE Course = 4 Day Class

- Importing 3D data and data reduction
- Analysis operations
- Structure and analysis of devices and workcells
- Robotic programming
- Offline programming and downloading
- 3D dimensioning and creation of 2D drawings
- User-display interface
- Library creation
- Data import and export
- Create tools, workpieces and devices
- Creating kinematic devices
- Perform reachability studies
- Creating tag points and paths
Prerequisites
None

Course Length
The CORE course is 4 days

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
**Purpose of the Course**
At Dassault Systemes Delmia Corp. Course Code: EDU-01-ROB-dhq
At Customer Site Course Code: EDU-01-ROB-cust

**V5 Robotics CORE Course**
V5 Robotics allows Users to build devices, and simulate the welding activity in an interactive 3D environment. Focusing only on the Robotics simulation aspects, it is assumed that the process planning and weld assignments have already been done in BIW Fastener Planning or another venue. The software will be applied to the development of a project as the methodology for introducing the functionality and capability of this solution. The process plan and supporting resources will be retrieved, devices built, and then the construction of the simulation is undertaken. The simulation is then analyzed and modified as required.

This course is a key component of a Learning Plan for the Robotics track which consists of:

1. Body in White - Fastener Process Planning including Plant Layout
2. V5 Robotics including Device Building
3. Process Engineer
4. QUEST

**Course Content**
V5 Robotics CORE Course = 3 Day Class

- Introduction to the V5 environment
  - Customizing the Startup, toolbars, and options
- Build the Layout (Inserting Products and Resources)
  - Using the Compass and Snap Operators
  - Insert Products and Resource Components
  - Using Snap and Child Selection to Complete the Layout
- Tag Points and Robot Tasks
  - Create Tag Points
  - Creating Robot Tasks
  - Using Teach and Jog
  - Running a Single Robot Process
- Activities and Assignments
  - Create Activities (Using Fastening Process Planner)
  - Fastener Assignment
  - Resource Assignment
  - Add Weld Gun Functions
- Optimizing the Simulation
  - Robot Task Analysis
  - Mapping and Monitoring I/Os
  - Multiple Resource Simulation
  - Robot Controller Profiles (Speeds and Corner Rounding)
Advanced Topics

- Advanced Robotic Functionality
- Editing Manufacturing Positions
- Offline Programming
- Device Building (Including Inverse Kinematics)

Prerequisites
Familiarization with the basic features of the V5 environment is useful but not necessary

Course Length
The CORE course is 3 days

Course Level
This is a “Specialist” level course

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants
Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at:
DELMIA.services.training@3ds.com
**Purpose of the Course**
At Dassault Systemes Delmia Corp. Course Code: EDU-01-VT2-dhq
At Customer Site Course Code: EDU-01-VT2-cust

**NC Machining Simulation CORE Course**
NC Machine Tool Builder and NC Machine Tool Simulation make up the NC Machining Simulation course. NC Machine Tool Builder demonstrates the correct method of building NC machine tools for use in the NC Machine Tool Simulation product. Machines created will be 3, 4 and 5 axis machining centers and a C axis lathe. NC Machine Tool Simulation shows how to add a machine tool to an existing machining Process (both mill based and lathe based) and how to perform fault detection and analysis on the simulation. Finally, output files and reports are generated.

As part of a complete learning plan with an NC Machining Simulation focus, NC Machine Tool Builder and NC Machine Tool Simulation play a key role. A suggested learning plan will contain:

1. Part Design
2. Assembly Design
3. Prismatic Machining
4. Lathe Machining
5. NC Machining Simulation (NC Machine Tool Builder/NC Machine Tool Simulation)

**Course Content**
NC Machining Simulation CORE Course = 4 Day Class

- Introduction to the V5 environment
  - Customizing the Startup, toolbars, and options
- Creating a machine assembly
  - Creating an assembly of machine parts in the Assembly Design workbench
- Creating a machine tool
  - Retrieve machine parts
  - Create a new machine device
  - Define a fixed part
  - Create kinematic joints
  - Define machine attributes
  - Set NC resources
- Creating a Simulation
  - Retrieve a machining process
  - Run a mill based tool path simulation
  - Run a lathe based tool path simulation
  - Perform fault detection
  - Modify a Machining Operation (MO)
  - Change to a different machine
Creating an MCD Simulation
- Define a controller emulator
- Generate NC code
- Run an NC code based simulation
- Run an NC code based simulation with material removal

Simulation Analysis
- Pick point analysis
- Video measure
- Machined part analysis

Prerequisites
Familiarization with the basic features of the V5 environment is necessary. Students should also have some familiarization with NC machine tools in general.

Course Length
The CORE course is 4 days

Course Level
This is a Master level course

Course Schedule
Please email us at DELMIA.services.training@3ds.com, view the posted schedule, or call for custom arrangements

Number of Participants
Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com

Materials
Manuals are provided for participants
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-02-VNC-dhq
At Customer Site Course Code: EDU-02-VNC-cust

D5 VNC Mimic CORE Course
Basic VNC is designed to assist a new User with the basic methodologies, concepts, and functions necessary to professionally operate Virtual NC software. The User is shown how to utilize the CAD world, create a workpiece, build tools and machines, run the simulation, and add or extract information. It will also explore the built-in configurable controller emulator MIMIC and the open environment in which User defined process algorithms can be evaluated, refined and implemented.

Course Content
VNC Mimic CORE Course = 5 Day Class

- Create a library
- Import/export CAD data
- Data reduction techniques
- Create a workpiece
- 3- and 5-axis machine building
- Part translation kinematics travel limits, and creation of tag points
- Load Mimic file, workpiece, tooling, and NC program
- Run the simulation
- Collision detection
- Creating and adding user views and pages
- View program window and G80 & G81 canned cycles
- Adding NC program view window and user-defined views using the Mimic file and NC macro support
- G code support G89 & G99
- Canned cycles, G73, G83, G80 & G81
- G82 Spotfacing cycles
- G85 Boring cycles
- G74 & 84 Tapping cycles
- Dynamic tool loading
- Setting automatic work offsets
Prerequisites
None; however, a machining background is useful

Course Length
The CORE course is 5 days

Course Level
This is a "Specialist" level course

Course Schedule
By arrangement only

Number of Participants Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-03-AUTO-dhq
At Customer Site Course Code: EDU-03-AUTO-cust

Automation CORE Course
By building a virtual environment in DELMIA Automation that is the exact reproduction of the logical behavior of a machine or a production cell and being able to see this virtual cell come to life as it interacts with the PLC, a control engineer can save weeks in the debugging process. In addition to more efficient validation, the control engineer can leverage the virtual model to explore different “what if?” scenarios that are otherwise very difficult to validate.

In the first section of the training class, students will learn how to create Control Logic, compile the code and perform debug operations. The second section shows how to add internal logic to an existing kinematic device thus creating a reusable Smart Device. In the third section, students will learn how to create a Control Panel used to activate either Control Logic or a Smart Device. Lastly, the Control Logic, Smart Device and Control Panel(s) will be assembled into a workcell and a simulation performed.

As part of a complete learning plan with an Automation focus, V5 Automation plays a key role. A suggested learning plan will contain:

1. V5 Fundamentals
2. Assembly Design
3. V5 Robotics
4. V5 Automation

Course Content
Automation CORE Course = 2 Day Class

Create the Working Environment
- Set Options
- CSM Module & Block Editor
  - Create a New Module
  - Create a New Block
  - Add Ports
  - Add Program Logic
- CSM Device Logic Design
  - Adding Internal Logic to a Device
  - Add Steps
  - Create Transitions
  - Report the Device Position
  - Compile Logic
  - Smart Device Simulation
  - Analyze the Simulation
HMI Control Panel Design
- Create an Operator Control Panel
- Add Internal Logic

CSM Device Control Connection
- Create a Runtime Block
- Create a Simulation Set
- Map Internal and Control Logics
- Simulate a Machine

Prerequisites
Familiarization with the basic features of the V5 environment is useful but not necessary

Course Length
The CORE course is 2 days

Course Level
This is a "Specialist" level course

Course Schedule
Please see the posted schedule, or call for custom arrangements

Number of Participants Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at:
DELMIA.services.training@3ds.com
**Purpose of the Course**
At Dassault Systemes Delmia Corp. Course Code: EDU-01-DST-dhq
At Customer Site Course Code: EDU-01-DST-cust

**DPM Structures Lofting CORE Course**
DPM Structures allows the end user to perform "Lofting" using a process driven approach. This software captures the weld items it creates, identifies the manufacturing items it consumes, and checks the manufacturing items it creates for later use in the process. Templates for plate forming and profile bending are also related. This course introduces the user to the functionality of the software in a practice-based approach.

**Course Content**
DPM Structures Lofting CORE Course = 3 Day Class

- Introduction
- Joining Operations
  - Welds
    - Margin
    - Fit Up
    - Marking
    - Attachment lines
    - Alignment lines
    - Reference lines
  - Opening preparation
- Forming Operations
  - Plate forming
    - Roll lines
    - Plate Fabrication Sketch and template
    - Capture Burn Side up
    - Capture Workshop Position
  - Profile Bending
    - Inverse Bending Curves
    - Profile Fabrication Sketch and template

Navigate through the process
- Check Lofting
- Display interim product in in-workshop position
- Workshop documents extraction
Prerequisites
Familiarization with the basic features of the V5 environment is useful but not necessary

Course Length
The CORE course is 3 days

Course Level
This is a Specialist level course

Course Schedule
Please view the posted schedule or call for custom arrangements

Number of Participants
Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-01-HUM-dhq
At Customer Site Course Code: EDU-01-HUM-cust

Human Solutions CORE Course
Human Solutions is a powerful set of tools for simulating individuals in a manufacturing context and performing ergonomic analyses. In a series of six modules, this course teaches Users to set options, create manikins, manipulate them, modify their dimensions, realize joint movements with a simulation and conduct ergonomic analyses. The fifth module, Human Task Simulation, engages DPM Assembly for tracking and Robotics for establishing I/O signals. This module will also demonstrate the expanded capability for walking and analyzing the manikin actions within the project.

Human Solutions is an important part of the Assembly track learning plan that includes:

1. Process Engineer
2. DPM Assembly
3. Human Solutions
4. QUEST
5. DPM Shop/Work

Course Content
Human Solutions CORE Course = 4 Day Class

Human Builder Module
- Generating and manipulating specific manikins
- Vision analysis
- Generating simulations and animation

Human Measurements Editor Module
- Change anthropometrics measurement of manikins
- Identify critical variables and generate boundary manikins
- Create and use anthropometrics libraries

Human Activity Analysis Module
- Conduct RULA analysis
- Conduct lifting/lowering, pushing/pulling, and carrying analyses

Human Posture Analysis Module
- Creating posture libraries and preferred angles libraries
- Evaluating posture according to various aspects

Human Task Simulation Module
- Create projects using simulation techniques
- Utilize other DELMIA workbenches
- Perform additional analysis of the manikin within the project
Prerequisites
Familiarization with the basic features of the V5 environment by completion of any V5 DPM course

Course Length
The CORE course is 4 days

Course Level
This is a Specialist level course

Course Schedule
Please email us at DELMIA.services.training@3ds.com, view the posted schedule, or call for custom arrangements

Number of Participants Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-01-DPE-dhq

At Customer Site Course Code: EDU-01-DPE-cust

Basic Process Engineer CORE Course
This course is designed especially for those customers who are implementing Process Engineer in their environment. Process Engineer provides a high-quality solution for early recognition of process risks, re-use of proven processes, traceable changes and decisions, and access to scattered process knowledge. We will apply the software to the development of a project as the methodology for introducing the functionality and capability of this solution.

As part of an enterprise-wide virtual manufacturing solution, Process Engineer plays a key role in any learning plan. It is recommended that Process Engineer be taken in near term relationship to training in any other DPM Solution.

Course Content
Basic Process Engineer CORE Course = 3 Day Class

Overview
Create a Product View
Create the Process
  ◆ Create the Process Plan
  ◆ Create the Process Graph
  ◆ Create the Production Plan
Create the Resource View
Create Relationships
Create the Manufacturing Concept
Introduction to Time Analysis
Introduction Variants
Import DPE to DPM Assembly
Import DPE to QUEST
Prerequisites
None

Course Length
The CORE course is 2 days

Course Level
This is a Specialist level course

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-01-HUB-dhq

At Customer Site Course Code: EDU-01-HUB-cust

Hub Customization CORE Course
Hub Customization is designed for those individuals who have a working knowledge of Process Engineer and who will be involved in using and modifying the Process Engineer software to reflect enterprise specific business needs. Depth of knowledge is gained in Plantypesets, Macros, Data Management, Data Input and Output, and User Rights. As part of an enterprise-wide virtual manufacturing solution, Hub Customization plays a key role in a learning plan that focuses on developing the depth of skills necessary for a complete Manufacturing execution.

Hub Customization applies to both the Process Engineer and Infrastructure tracks. A learning plan for both of these tracks involves:

1. Basic Process Engineer User
2. Hub Customization
3. Hub System Administration
4. Any DPM and/or QUEST
5. ENOVIA LCA

Course Content
Hub Customization CORE Course = 3 Day Class

Module 1 Blueprint Implementation
- Introduction to MH Customization
  Determine End User Requirement

Module 2 Configure the organization and display of data
- Define and Structure Plantypesets
- Customize Types & Plantype Attributes
- Inter-Object Relationship

Module 3 Customize functionality within the PPR Tree
- Streamline User Interface
- Load Scripts into Library

Module 4 Create and manage Users and Groups
- Define Users & Groups
- Define Project & Plantype Rights

Module 5 Create New Independent Manufacturing Hub Project
- Create New Project
- Establish PPR Tree Framework

Module 6 Project Maintenance
- Data Backup
- Script Maintenance
Prerequisites
Working knowledge of Process Engineer

Course Length
The CORE course is 3 days

Course Level
This is an Expert level course

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants
Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-01-SYS-dhq

At Customer Site Course Code: EDU-01-SYS-cust

Hub System Administration CORE Course
This course is designed for those who will be involved in new, upgraded, or reconfiguring DELMIA Process Engineer installations. The skills developed in this course are geared toward those individuals who will be responsible for configuring, supporting, troubleshooting, and maintaining the DPE5, Oracle and underlying databases.

As part of an enterprise-wide virtual manufacturing solution, Hub System Administration plays a key role in a learning plan that focuses on developing the depth of skills necessary for a complete Manufacturing Hub implementation. Hub System Administration applies to both the Process Engineer and Infrastructure Tracks. A learning plan for both these tracks involves:

1. Basic Process Engineer User
2. Hub Customization
3. Hub System Administration
4. Any DPM and/or QUEST
5. ENOVIA LCA

Course Content
Hub System Administration CORE Course = 3 Day Class

Terms and Definitions
Process Engineer System Overview
- Supported operating systems
- Hardware requirements
- Installation Media structure and setup concept
- File structure
- Microsoft DCOM solution for the DPE5 objects
- Registry settings
- DPE5 Processes

Process Engineer Licensing
- License management software
- License types
- Troubleshooting

Analysis of the Customer H/W and S/W environment

Process Engineer Installation
- Client server installation (Standalone)
- Client server installation (Distributed)
- Multi-server installation (Distributed)

Process Engineer and the Manufacturing Hub
- Oracle 9i installation
- Oracle services
- DPE5 database structure
- Using database utilities
- Backup procedures
- Capturing error messages
Updating DPE5 from release to release

- Preparing an update
- Version stamps
- Possible problems
- Oracle prerequisites
- General Uninstallations for DPE5 and Oracle

Using the Database Assistant Tool

- Import/Export tool
- Switch
- Update

Network and DPE5 Security

- Managing the DCOM Administration Account
- Configuration of groups
- Strategies for limiting access to project members and external partner users

Process Engineer troubleshooting

- Installation issues
- Database issues
- Analyzing the log files in DPE5 and Oracle

Interoperability between DPE, V5/D5, and ENOVIA

- Generic scenarios
- D5/V5/E5 Installation and connecting to the Manufacturing Hub
- ENOVIA to the IPD bridge (concept)

Prerequisites

Basic Knowledge of DELMIA Process Engineer and/or IT background. An ideal nominee for this training would have the following skills and/or expertise:

- Systems administration
- Infrastructure support
- Oracle (DBA is preferred)
- Data management
- Software license management

Course Length

The CORE course is 3 days

Course Level

This is an Expert level course

Course Schedule

Please view the posted schedule, or call for custom arrangements

Number of Participants

Maximum of 8

Registration Fee

Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-02-QST-dhq
At Customer Site Course Code: EDU-02-QST-cust

QUEST CORE Course
DELMIA QUEST is a complete 3D digital factory environment for process flow simulation and analysis. It provides a collaborative environment for industrial and manufacturing engineers and management to virtually develop and prove out best manufacturing flow practices. This course introduces participants to the QUEST simulation tool and its most important functions. Participants will learn how to create 3D models to simulate material flows and production concepts.

As part of a complete learning plan for an Assembly manufacturing focus, QUEST is a key component. A typical plan could look like:

1. Process Engineer
2. DPM Assembly
3. Human Solutions
4. QUEST
5. DPM Shop

Course Content
QUEST CORE Course = 4 Day Class

Overview
◆ Modeling Methodology - Logical and physical models
◆ Running Model
◆ Creating Reports/Charts

Introduction to Modeling
◆ Start-up Options
◆ Creating Library
◆ Creating Basic Simulation

Material Handling System
◆ Conveyor Systems Modeling
◆ Creating Pallets
◆ Automated Guided Vehicles Modeling
◆ Labor Modeling
◆ Power and Free Systems Modeling

Animation and Kinematics
◆ Building Basic CAD Parts
◆ Building Kinematics Device
◆ Adding Grab and Release

Interrupts
◆ Defining Shifts and Schedules
◆ Defining Failures
Preview of Advanced Usage
- Creating Cranes
- Creating Reports
- Debugging
- Data Interface Methodology
- Simulation Control Language
- Batch Control Language

Prerequisites

Course Length
The CORE course is 4 days

Course Level
This is a "Specialist" level course

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants
Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-02-AQT-dhq
At Customer Site Course Code: EDU-02-AQT-cust

Advanced QUEST CORE Course
This expert course in Advanced QUEST describes the behavior of the model relying on defined events bitting governed by different states. This is created by managing elements that run standard logic files simultaneously. This course will permit the learner to have an applied, consistent experience while learning the advanced features of the software.

As part of a complete learning plan for an Assembly Manufacturing focus, QUEST is a key component. A typical learning plan could look like:

1. Process Engineer
2. DPM Assembly
3. Human Solutions
4. QUEST including Advanced QUEST

Course Content
Advanced QUEST CORE Course = 2 Day Class

Advanced QUEST Programming
- Programming in SCL and BCL
- Creating SCL and BCL macros
- Debugging
- Creating Popups

Optimization and Experimentation
- Defining Control Variables
- Conducting Experimentation
- Conducting Optimization

QUEST Graphical Outputs
- Creating Videos
- Creating Images and Hardcopies

Hierarchical Modeling
- Creating Sub Models
- Creating Groups

Trains, Fluids, and Tools & Fixtures
- Modeling Trains
- Modeling Fluids
- Modeling Tools & Fixtures

Final Assembly Model and Pull Modeling
- Modeling Final Assembly Model
- Modeling Pull Systems
Prerequisites
6 months of computer programming experience. 6 months of manufacturing systems experience.

Course Length
The Advanced CORE course is 2 days

Course Level
This is an "Expert" level course

Course Schedule
By arrangement only

Number of Participants 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at:
DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-01-VB4V5-dhq

At Customer Site Course Code: EDU-01-VB4V5-cust

VB Scripting for DELMIA V5 CORE Course
The VB Scripting for DELMIA V5 applications are specifically designed to increase the ability of participants to move information from DELMIA V5 software into MS Excel and XML. This ability to move information greatly facilitates the reporting function and permits the reuse of information in additional systems within the customer environment.

VB Scripting for V5 applies to both the Process Engineer and Infrastructure Tracks. A learning plan for both of these tracks involves:

1. Basic Process Engineer User
2. Hub Customization
3. Hub System Administration
4. Balancing
5. Any DPM and/or QUEST

Course Content
VB Scripting for DELMIA V5 CORE Course = 2 Day Class

◆ VBA overview
◆ How to use VBA IDE within a target application, specifically MS Excel
◆ Walking the Tree
◆ Exploring the V5 Object Model
◆ Export the Tree to XML
◆ Using MS XML to export tree data for external applications
Prerequisites
Working knowledge of Process Engineer

Course Length
The CORE course is 2 days

Course Level
This is an "Expert" level course

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants
Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-03-RWB-dhq

At Customer Site Course Code: EDU-03-RWB-cust

Robotics Workcell Builder CORE Course

Many Service Companies & OEM suppliers spend several months designing workcells with either 2D layouts or with physical layout approximations or multiple software tools and later realize that resources need to be repositioned/adjusted once commissioned.

Workcell Builder solution benefits the Resource designer/planner by enabling him to virtually design cell components, build the workcell, optionally load desired robot from standard library, perform robotic reach studies & work envelope studies in order to commission the workcell right the first time.

As part of a complete learning plan with Assembly Manufacturing focus, DPM Assembly plays a key role. A suggested learning plan will contain:

1. DPM Assembly
2. V5 Robotics
3. PLMX Workcell Builder

Course Content
Robotics Workcell Builder CORE Course = 2 Day Class

Preparing the Working Environment
  ♦ Setting Options

Building the Layout
  ♦ Positioning and Manipulating the Compass
  ♦ Using the Manipulation Bounding Box
  ♦ Snapping Automatically to Selected Objects
  ♦ Editing Positions

Inserting Products and Resources
  ♦ Start a New Process
  ♦ Inserting a Resource
  ♦ Mounting a Device Using Set Tool
  ♦ Removing a Resource
  ♦ Using the Save As Function

Snap and Attach
  ♦ Using the Snap Icon
  ♦ Defining Reference Plane Snap Options
  ♦ Hiding Attachments
  ♦ Editing the Height of Robot Riser

Creating Tags
  ♦ Creating a New Tag Group
  ♦ Creating New Tags
  ♦ Renaming a Tag Group
  ♦ Renaming Tags
Advanced Topics
- Advanced Robot Functionality
- General Settings
- Inserting Using Catalog Browser
- Inserting D5 Components
- Setting Auxiliary Devices
- Teaching Robot to Move on Rail

Edit Manufacturing Positions
- Using Tag Transformation for Weld Parts
- Transforming Tags
- Using Trace TCP
- Hide/Show Attachments
- Creating Call Tasks

Device Building
- Opening a Product
- Creating Frames
- Creating a Joint from an Axis
- Setting and Editing Joint Limits and Jogging
- Creating Home Positions
- Creating Tool Center Points
- Assigning Inverse Kinematics

Prerequisites
Familiarization with the basic features of the V5 environment is useful but not necessary

Course Length
The CORE course is 2 days

Course Level
This is a "Specialist" level course

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants
Maximum of 8

Registration Fee
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Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-03-SRB-dhq

At Customer Site Course Code: EDU-03-SRB-cust

PLMX Spot Robotics CORE Course
PLMX Spot Welding Programmer helps manufacturing engineering departments define and manage spot welding manufacturing processes. This specialist course in Spot Welding Programmer will introduce you to the initial aspects of preparing an environment to carry out robotic activities. It provides tools for workcell layout as well as tools to create and optimize the robotic simulation.

As part of a learning plan with a targeted robotics focus this course plays a key role. A suggested learning plan will contain:

1. PLMX Robotics Workcell Builder
2. PLMX Spot Welding
3. and/or PLMX Arc Welding

Course Content
PLMX Spot Robotics CORE Course = 3 Day Class

Preparing the Working Environment
- Set Options

Building the Layout
- Positioning and Manipulating the Compass
- Inserting Products and Resources
- Snap and Attach

Creating Tags and Robot Tasks
- Create Tags
- Create Robot Tasks
- Move a Robot
- Run a Robot Process
- Create Robot Tasks and Add Weld Gun Actions

Optimizing the Simulation
- Robot Tasks Analysis
- Mapping and Monitoring I/Os
- Multiple Resource Simulation
- Create Robot Controller Profiles

Advanced Topics
- Advanced Robot Functionality
- Edit Manufacturing Positions
- Offline Programming
Prerequisites
Familiarization with the basic features of the V5 environment is useful but not necessary

Course Length
The CORE course is 3 days

Course Level
This is a "Specialist" level course

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-03-XHM-dhq

At Customer Site Course Code: EDU-03-XHM-cust

PLMX Human CORE Course
PLMX Human is a brief introduction to a powerful set of tools for simulation individuals in a manufacturing context without extensive ergonomic analysis. Users create manikins, manipulate them, modify their dimensions, and realize joint movements. This course will also demonstrate the expanded capability for walking and analyzing the manikin action within the project.

As part of a learning plan for customers implementing focused solutions we recommend:

1. PLMX Human
2. DPM Assembly
3. PLMX Work Instructions (WIU)
4. PLMX Robotics (as applicable)

Course Content
PLMX Human CORE Course = 2 Day Class

Human Builder Module
◆ Generating and manipulating specific manikins
◆ Vision analysis
◆ Generating simulations and animation

Human Task Simulation Module
◆ Create projects using simulation techniques
◆ Utilize other DELMIA workbenches
◆ Perform additional analysis of the manikin within the project
Prerequisites
Familiarization with the basic features of the V5 environment is useful but not necessary

Course Length
The CORE course is 2 days

Course Level
This is a "Specialist" level course

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants
Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-03-ARB-dhq
At Customer Site Course Code: EDU-03-ARB-cust

PLMX Arc Welding CORE Course
In the demanding global marketplace, the PLMX Arc Welding application is a product that provides various robot arc welding functions for robot arc welding process simulation. PLMX Arc Welding can be used in cooperation with other products in the Resource Detailing Workbenches, such as Device Task Definition and Workcell Sequencing for development of a complete robot arc welding simulation with synchronization of all resources.

The PLMX Arc Welding application offers a highly productive and intuitive simulation environment providing different tools to fulfill robot arc welding simulation needs.

As part of a complete learning plan with an Assembly Manufacturing focus, DPM Assembly plays a key role. A suggested learning plan will contain:

1. DPM Assembly
2. PLMX Robotics Workcell Builder
3. and/or PLMX Spot Welding

Course Content
PLMX Arc Welding CORE Course = 2 Day Class

Preparing the Working Environment
- Starting the Arc Welding Workbench
- Loading Products
- Loading Resources

Setup Tasks
- Mounting Device on Robot
- Defining the Auxiliary Device
- Attaching Parts
- Mounting Robot onto Rail or Gantry

Creating Arc Welding Tasks
- Creating Tag Groups
- Changing Tag Group Parents
- Defining Robot Singularity Tolerance

Generate the Path
- Creating Arc Paths with Surfaces
- Creating Arc Paths with Parts

Define the Tasks
- Creating Robot Tasks
- Adding Tags to Tasks

Computing Values
- Using Positioner Programming
- Computing Rail or Gantry Values
Optimize Robot Motion
- Orienting Tags and Tag Groups
- Flaring End Points
- Interpolating Tags
- Snapping Tag to Part
- Mirroring a Tag Group or Robot Task

Working with AMP
- AMP System Variables
- AMP Keywords
- Global Files
- AMP Primitive Files

Create and Execute AMP
- Setting AMP Options
- Creating Primitives
- Executing Primitives

Prerequisites
Familiarization with the basic features of the V5 environment is useful but not necessary

Course Length
The CORE course is 2 days

Course Level
This is a "Specialist" level course

Course Schedule
Please view the posted schedule, or call for custom arrangements

Number of Participants
Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
These OPTIONS are designed for customers implementing multiple DELMIA software applications and are intended to maximize time utilization by adding onto a learning plan that involves a DPM CORE Course.
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-02-HSO-dhq

At Customer Site Course Code: EDU-02-HSO-cust

Human OPTION Course
Human OPTION is a brief introduction to a powerful set of tools for simulating individuals in a manufacturing context without extensive ergonomic analysis. Users create manikins, manipulate them, modify their dimensions, and realize joint movements. Then the User is engaged in putting the manikin into DPM Assembly for tracking and Robotics for establishing I/O signals. This course will also demonstrate the expanded capability for walking and analyzing the manikin actions within the project.

Course Content
Human Solutions OPTION = 2 Day Class

Human Builder Module
◆ Generating and manipulating specific manikins
◆ Vision analysis
◆ Generating simulations and animation

Human Task Simulation Module
◆ Create projects using simulation techniques
◆ Utilize other DELMIA workbenches
◆ Perform additional analysis of the manikin within the project
**Prerequisites**
Familiarization with the basic features of the V5 environment by completion of any V5 DPM Course

**Course Length**
The OPTION course is 2 days

**Course Level**
This is a "Specialist" level course

**Course Schedule**
Please view the posted schedule, or call for custom arrangements

**Number of Participants**
Maximum of 8

**Registration Fee**
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-01-VAR-dhq

At Customer Site Course Code: EDU-01-VAR-cust

V5 Arc Welding OPTION Course
In the demanding global marketplace, the V5 Arc Welding application is a product that provides various robot arc welding functions for robot arc welding process simulation. V5 Arc Welding can be used in cooperation with other products in the Resource Detailing Workbenches, such as Device Task Definition and Workcell Sequencing for development of a complete robot arc welding simulation with synchronization of all resources. This personal consulting addresses the topics listed below but is primarily focused on coaching and suggestions regarding the User’s application.

The V5 Arc Welding application offers a highly productive and intuitive simulation environment providing different tools to fulfill robot arc welding simulation needs.

As part of a complete learning plan with an Assembly Manufacturing focus, DPM Assembly plays a key role. A suggested learning plan will contain:

1. DPM Assembly
2. Process Engineer (for those customers implementing an enterprise-wide solution)
3. V5 Arc Welding

Course Content
V5 Arc Welding OPTION = 2 Day Class

Preparing the Working Environment
- Starting the Arc Welding Workbench
- Loading Products
- Loading Resources

Setup Tasks
- Mounting Device on Robot
- Defining the Auxiliary Device
- Attaching Parts
- Mounting Robot onto Rail or Gantry

Creating Arc Welding Tasks
- Creating Tag Groups
- Changing Tag Group Parents
- Defining Robot Singularity Tolerance

Generate the Path
- Creating Arc Paths with Surfaces
- Creating Arc Paths with Parts

Define the Tasks
- Creating Robot Tasks
- Adding Tags to Tasks

Computing Values
- Using Positioner Programming
Optimize Robot Motion
- Orienting Tags and Tag Groups
- Flaring End Points
- Interpolating Tags
- Snapping Tag to Part
- Mirroring a Tag Group or Robot Task

Working with AMP
- AMP System Variables
- AMP Keywords
- Global Files
- AMP Primitive Files

Create and Execute AMP
- Setting AMP Options
- Creating Primitives
- Executing Primitives

Prerequisites
None

Course Length
This content will typically take 2 days and is in addition to other Robotics OPTIONS

Course Schedule
By arrangement only

Number of Participants
Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
These agendas are available by scheduled coaching sessions only.
D5 Paint Option

Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-02-PNT-dhq

At Customer Site Course Code: EDU-02-PNT-cust

D5 Paint Consulting OPTION Course
When adding this consulting option, the subject matter expert will coach the User in the various robotic painting and associated functions that are provided with the Paint capability. The Paint functionality is available as an add-on to the IGRIP, ULTRA, or Envision software and, thus, the coaching for this specialty must occur after the use of the core software has been addressed. This personal consulting addresses the topics listed below but is primarily focused on coaching and suggestions regarding the User’s application.

Course Content
D5 Paint Consulting OPTION = 1 Day Class

Create, load, show, download and run a robotic Paint workcell simulation
◆ Creation and placement of paths and tag points
◆ Parts and device building
◆ Motion control
◆ Program syntax
Prerequisites
IGRIP CORE course or Consultative Coaching in ULTRA or Envision software

Course Length
The Paint OPTION is 1 day that can be added onto an IGRIP CORE course or scheduled after preliminary skills in ULTRA or Envision have been attained

Course Schedule
By arrangement only

Number of Participants Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-02-ERGO-dhq

At Customer Site Course Code: EDU-02-ERGO-cust

D5 Ergo Consulting OPTION Course
When adding this consulting OPTION, the subject matter expert will coach the User in the various ergonomic and associated functions that are provided with the Ergo software option. The Ergo functionality is available as add-on to the IGRIP, ULTRA, or Envision software and, thus, the coaching for this specialty must occur after the use of the core software has been addressed. This personal consulting addresses the topics listed below but is primarily focused on coaching and providing suggestions regarding the User’s application.

Course Content
D5 Ergo Consulting OPTION = 1 Day Class

Create an environment for the human
Build human model(s)
Add movements to the model within the environment
Prerequisites
IGRIP CORE course or consultative coaching in ULTRA or Envision software

Course Length
The Ergo OPTION is 1 day added onto an IGRIP CORE course or as an additional day to an ULTRA or Envision coaching engagement

Course Schedule
By arrangement only

Number of Participants
Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-02-SPOT-dhq

At Customer Site Course Code: EDU-02-SPOT-cust

D5 Spot Consulting OPTION Course
When adding this consulting OPTION, the subject matter expert will coach the User in the various spot weldings and associated functions that are provided with the Spot simulation system. The Spot functionality is available as an add-on to the IGRIP, ULTRA, or Envision software and, thus, the coaching for this specialty must occur after the use of the core software has been addressed. This personal consulting addresses the topics listed below but is primarily focused on coaching and suggestions regarding the User’s application.

Course Content
D5 Spot Consulting OPTION = 1 Day Class

- Basics of robotics terminology
- Tool page functions
- Create, load, show, download and run a robotic spot welding workcell simulation
- Creation and placement of paths and tag points
- Parts and device building
- Motion control
- Program syntax
**Prerequisites**
IGRIP CORE course or consultative coaching in ULTRA or Envision software

**Course Length**
The Spot OPTION is 1 day added onto an IGRIP CORE course or as an additional day consultation to an ULTRA or Envision

**Course Schedule**
By arrangement only

**Number of Participants** Maximum of 8

**Registration Fee**
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
D5 Arc Option

Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-02-ARC-dhq

At Customer Site Course Code: EDU-02-ARC-cust

D5 Arc Consulting OPTION Course
This consulting OPTION is designed to add onto core information from IGRIP, ULTRA or Envision software products. In this setting, the subject matter expert will coach the User in the ideas, concepts, keystrokes and skills necessary to apply the Arc welding applications of DELMIA software. The Arc functionality is available as an add-on to the IGRIP, ULTRA, or Envision software and, thus, the coaching for this specialty must occur after the use of the core software has been addressed. This personal consulting addresses the topics listed below but is primarily focused on coaching and suggestions regarding the User’s application.

Course Content
D5 Arc Consulting OPTION = 1 Day Class

◆ Devices jogging
◆ Modifying models
◆ Collision detection
◆ Concepts of Graphical Simulation Language (GSL)
◆ Motion control
◆ GSL & AMP programming
**Prerequisites**
IGRIP CORE course or consultative coaching in ULTRA or Envision software

**Course Length**
The Arc OPTION is 1 day added onto an IGRIP CORE course or as an additional day to an ULTRA or Envision coaching engagement

**Course Schedule**
By arrangement only

**Number of Participants**
Maximum of 8

**Registration Fee**
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
D5 Envision Option

Purpose of the Course
At Dassault Systemes Delmia Corp. Course Code: EDU-02-ENV-dhq

At Customer Site Course Code: EDU-02-ENV-cust

D5 Envision Consulting OPTION Course
Envision focuses on the integration of product, process, and system information with a powerful three-dimensional CAD physics-based graphical simulation environment. Users create smart product models, and develop advanced integration methods to create cohesive yet flexible designs. The CAD-based models of Envision precisely represent the actual geometry and motion characteristics associated with the real world system. In this environment, Users are able to design, build, test, operate, and support multiple product and system scenarios in a fast, efficient and cost-effective manner. This personal consulting addresses the topics listed below but is primarily focused on coaching and suggestions regarding the User’s application.

Course Content
D5 Envision Consulting OPTION = 4 Day Class

- Importing CAD Data and Data Reduction
- Motion Kinematics
- Manual and Programmed Motion
- Design Verification
- Measurement Analysis
- Creating, Loading and Running Simulations
- Collision and Interference Detection
- Time Analysis
- Creation of Paths and Tag Points
- Basics of GSL and CLI Programming
- Device Building
- Tips on how to use Envision to solve Manufacturing problems
- Reachability Studies
Prerequisites
None

Course Length
This content will typically take 4 days and is preliminary to other D5 Consulting OPTIONS

Course Schedule
By arrangement only

Number of Participants
Maximum of 8

Registration Fee
Call 248.267.9696 for a personalized quote on your training services or send us an email at: DELMIA.services.training@3ds.com
Who is Dassault Systemes Delmia Corp.? We're the world's premier brand for increasing productivity and reducing costs in various manufacturing environments. Our extensive simulation tools enable companies to develop an optimal process for their manufacturing needs - and do so long before actual production takes place!

Dassault Systemes Delmia Corp. provides the manufacturing community with e-solutions to plan, create, monitor and control manufacturing systems geared toward build-to-order and lean production.

Our solutions range from single-device activity to extended-enterprise production flow. We can assist your process planning, cost estimation, factory layout, ergonomics, robotics, machining, inspection, factory simulation, and execution needs. Stated more succinctly: Dassault Systemes Delmia Corp. provides software solutions from concept to implementation, enabling our clients to increase productivity, lower costs, achieve better quality and bring their products to market more quickly. And now, thanks to our Product, Process and Resources (PPR) Hub, engineers throughout the extended enterprise have at their disposal data that is relevant and always current.

Who are we? We’re the answer to taking your production requirements from concept to implementation.

For more information about Dassault Systemes Delmia Corp., please send us an email at: info@delmia.com or visit our website at: www.delmia.com.

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