



Course Code	EDU-CAT-E-CPE-F
Brand & Release	CATIA V5R16
Duration	3 days
Language	English
Level	Fundamentals
Method	ILT

Training Material References

Instructor Foils: EDU-CAT-E-CPE-FI-V5R16
Foils: EDU-CAT-E-CPE-FF-V5R16
Exercises: EDU-CAT-E-CPE-FX-V5R16
Detailed Steps: EDU-CAT-E-CPE-FS-V5R16

Objectives

In this course you will learn how to generate a composites from the Preliminary Design to the Engineering Detail Design

Participants' Profile

Composites Parts Designer

Prerequisites

Part Design
Assembly Design
Wireframe and Surface Design

Content

- CPE Workbench Presentation
- Composites Catalog
- Laminate Parameters
- Group of Zones
- Zones Parameters
- Transition Zones
- Connection Generator
- Impose Thickness Point
- Stack-up file from Zones
- Import Laminate
- Solid and Top Surface from Zones
- Plies Creation From Zones
- Limit Contour
- Import Staggering data file
- Plies Group
- Manual Plies
- Core
- Ply Exploder
- Managing the Part
- Symmetry Creation
- Ply Table
- Import Ply Table
- Numerical Analysis
- Core Sampling Analysis
- Solid from plies
- Edge Of Part
- IML from plies
- Multi Splice Creation
- Producibility Analysis
- Inspection tool
- Darts
- Drawing
- Export

What is new in this release

Engineering functions

Notes

Be careful, you need to use a User Define Feature for the dart definition, the catalog is "DART.catalog".
For the Drawing annotation you have to use the catalog "CatalogDocument Text Template" for the exercise

Exercises

Ex. 1: Composites Catalog Definition (20min) / All sectors
Ex. 2: Zones design on a Blade (35min) / All sectors
Ex. 3: Preliminary Design with Stagger on a Panel (30min) / All sectors
Ex. 4: Analyze and ITPs definition on a Panel (20min) / All sectors
Ex. 5: Preliminary design on a Fuselage (15min) / All sectors
Ex. 6: Plies definition from Zones on a Blade (15min) / All sectors
Ex. 7: Plies from Zones definition on a Panel (25min) / All sectors
Ex. 8: Taper Refinement on a Door Panel (40min) / All sectors
Ex. 9: TopSurface on a Fuselage (50min) / All sectors
Ex. 10: Manual Staggering on a Panel (40min) / All sectors
Ex. 11: Manual Staggering on a Fuselage (45min) / All sectors
Ex. 12: Importing Staggering data file (20min) / All sectors
Ex. 13: Manual Plies definition on a Wing (30min) / All sectors
Ex. 14: Fairing Insert Management (20min) / All sectors
Ex. 15: Explode and DMU Sectioning (20min) / All sectors
Ex. 16: Wing Analysis (15min) / All sectors
Ex. 17: Fairing Analysis (15min) / All sectors
Ex. 18: Import Ply Table (20min) / All sectors
Ex. 19: Symmetry pivot on carter (30min) / All sectors
Ex. 20: Symmetry non pivot on carter (20min) / All sectors
Ex. 21: Solid & IML from plies on a fuselage (30min) / All sectors
Ex. 22: Multi Splice definition on a Monolithic Panel (10min) / All sectors
Ex. 23: Multi Splice definition on a Monolithic Part (15min) / All sectors
Ex. 24: Producibility (10min) / All sectors
Ex. 25: Producibility Analysis and Darts (30min) / All sectors
Ex. 26: Producibility Analysis with Deviation option (20min) / All sectors
Ex. 27: Engineering Composites data Export (10min) / All sectors
Ex. 28: Drawing definition (40min) / All sectors
Ex. 29: Panel Engineering Design (100min) / All sectors
Ex. 30: Complete Composites Part (90min) / All sectors



Course Code	EDU-CAT-E-CPM-F
Brand & Release	CATIA V5R16
Duration	2 days
Language	English
Level	Fundamentals
Method	ILT

Training Material References

Instructor Foils: EDU-CAT-E-CPM-FI-V5R16 Foils: EDU-CAT-E-CPM-FF-V5R16 Exercises: EDU-CAT-E-CPM-FX-V5R16 Detailed Steps: EDU-CAT-E-CPM-FS-V5R16
--

Objectives

In this course you will learn how to generate the Manufacturing Detail Design of a composites part
--

Participants' Profile

Composites Parts manufacturing Designer

Prerequisites

Part Design Assembly Design Wireframe and Surface Design
--

Content

<ul style="list-style-type: none"> - CPM Workbench Presentation - Composites Catalog - Laminate Parameters - Manufacturing Data Structure - Manufacturing Surface Swapping - Plies Group - Manual Plies - Core - Edge Of Part - Material Excess - Multi Splice Creation - Ply Table - Numerical Analysis - Managing the Part - Producibility Analysis - Inspection tool - Darts - Flattening - Geometry transfer - Ply Exploder - Synchronization - Export
--

What is new in this release

Manufacturing functions

Notes

Be careful, you need to use a User Define Feature for the dart definition, the catalog is "DART.catalog".

Exercises

- Ex. 1: Composites Catalog Definition (20min) / All sectors
- Ex. 2: Manufacturing Management New Part (5min) / All sectors
- Ex. 3: Manufacturing Management Existing Part (10min) / All sectors
- Ex. 4: Manufacturing Skin Swapping (10min) / All sectors
- Ex. 5: Manual Plies definition on a Wing (10min) / All sectors
- Ex. 6: Fairing Insert Management (20min) / All sectors
- Ex. 7: Material Excess on a Wing (20min) / All sectors
- Ex. 8: Material Excess on a Panel (20min) / All sectors
- Ex. 9: Multi Splice definition on a Monolithic Panel (25min) / All sectors
- Ex. 10: Multi Splice definition on a Monolithic Part (25min) / All sectors
- Ex. 11: Wing Analysis (10min) / All sectors
- Ex. 12: Fairing Analysis (10min) / All sectors
- Ex. 13: Producibility Analysis with Deviation option (20min) / All sectors
- Ex. 14: Producibility (30min) / All sectors
- Ex. 15: Producibility Analysis and Flattening (40min) / All sectors
- Ex. 16: 2D 3D geometry transfer (20min) / All sectors
- Ex. 17: 3D 2D geometry transfer (25min) / All sectors
- Ex. 18: Explode and DMU Sectioning (15min) / All sectors
- Ex. 19: Synchronization (25min) / All sectors
- Ex. 20: Manufacturing Export (20min) / All sectors
- Ex. 21: Panel Manufacturing Design (50min) / All sectors
- Ex. 22: Complete Composites Part (90min) / All sectors