CADVertex Solutions
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NX Open Advanced
Language: **VB.NET** or **CSharp** or **Python**

Training Structure

BlockUI Styler
uFunc
Knowledge Fusion

Phone or WhatsApp   +91 9890611694

eMail: info@CADVertex.com

Features:

- ✓ Personal coaching - no recorded videos.

- ✓ Flexible timings.

- ✓ Weekday batches.

- ✓ Weekend batches.

- ✓ CSharp or VB.Net programming - indepth training included.

- ✓ Unlimited support after training - at no extra cost!

- ✓ 5 industry projects – listed on next page.

- ✓ Resume Preparation.

- ✓ Interview Preparation.

- ✓ Job referrals.

Training Highlights

Online Training	Flexible Timings	Trainer: 25 yrs Exp.	Duration: 6 Wks	1 Hour Daily
Basic to Advanced	10 Industry Projs	Certificate	Support after Training	CuttingEdge Tech

List of Projects

1. Geometric Calculator.

2. Batch Processor.

3. Automatic Drawing Views.

4. Parametric Shaft.

5. Assembly Cost Estimation.

1. Architecture of the Block UI

- ❖ What is a Block UI?
- ❖ What is Block UI Styler.
- ❖ Which language does a Block UI use.
- ❖ How to use the Block UI dialogs in NX.

2. Block UI Styler Basics

- ❖ Where and how to use Visual Studio.
- ❖ Using the Block UI Values in NXOpen.
- ❖ Label and Bitmap blocks.
- ❖ Double, Integer inputs and the String block.
- ❖ Toggles and Enums.
- ❖ Radio button and dropdown lists.
- ❖ Point picker and folder selector.
- ❖ Listbox Flooding.

3. Drawing in 2D using the Block UI

- ❖ Create 2D shapes using points, lines, and arcs.
- ❖ Absolute and relative points.
- ❖ Create single line and multiline text or notes.
- ❖ Set note position and lettering style.

4. NX Parametric Parts using Block UI

- ❖ Create and control parametric part in NX.
- ❖ Expression table.
- ❖ Searching expressions by name and extracting values.
- ❖ **Industry Project** - Update parametric shaft with keyway.

5. NX Assemblies using Block UI

- ❖ Traverse the NX assembly structure.
- ❖ Creating NX assembly alias.
- ❖ Root component and children components.
- ❖ Extracting the name and cost of assembly components.
- ❖ **Industry Project** - Assembly Cost Estimation.

6. uFunc File Handling

- ❖ Part Tag identifiers.
- ❖ Create new NX files.
- ❖ Open, Close, Save and SaveAs NX files.
- ❖ Ask parts and active part in the session.
- ❖ Activate files in the session.
- ❖ Close all files in the session.

7. uFunc Drawing Automation

- ❖ Create 2D shapes using points, lines, and arcs.
- ❖ Absolute and relative points.

8. uFunc Part Automation

- ❖ Create 3D Objects, Sketching and Extrusion.
- ❖ Mass Properties Calculation.

9. Knowledge Fusion

- ❖ Knowledge Fusion Architecture.
- ❖ Setting Knowledge Fusion preferences.
- ❖ DFA Manager and search path.
- ❖ DFA File sorting and filtering.
- ❖ DFA File syntax checking and loading.

10. Writing Knowledge Fusion Programs

- ❖ DFA File format.
- ❖ DFA File header.
- ❖ Define a class.
- ❖ Points and lines.
- ❖ Creating 2D shapes.

11. Creating 2D Geometry with Knowledge Fusion

- ❖ Number parameters.
- ❖ Adding properties to geometry.
- ❖ 2D Vectors.
- ❖ Arc - directions, and angles.

12. Creating 3D objects in Knowledge Fusion

- ❖ Simple block using frame and vectors.
- ❖ Redefine origin and vector directions.
- ❖ Block using frame and points.
- ❖ More primitives – cylinders, cones, and spheres.
- ❖ Boolean operations, defining tools and targets.
- ❖ Inline Boolean operations.

13. Lists in Knowledge Fusion

- ❖ Creating composite lists.
- ❖ Print values and demand values.
- ❖ Named and positional members.
- ❖ Flattening lists, min, max, check empty lists.
- ❖ List operations, sort, reverse, and join lists.

14. Parametric Parts using Knowledge Fusion

- ❖ Reading and modifying NX expressions.
- ❖ **Industry Project** – Create a parametric shaft with keyway using KF.

Other eBooks and Training Programs from CADVertex:

- ❖ CATIA Automation: VB.Net or CSharp or Python
- ❖ SolidWorks Automation: VB.Net or CSharp or Python
- ❖ Solid Edge Automation: VB.Net or CSharp or Python
- ❖ Inventor Automation: VB.Net or CSharp or Python

- ❖ NX Open: VB.Net or CSharp with Win Forms
- ❖ NX Open: VB.Net or CSharp with Block UI Styler
- ❖ Knowledge Fusion
- ❖ Knowledge Fusion with Block UI Styler

- ❖ Revit Automation using CSharp.Net + Dynamo
- ❖ Tekla Automation using CSharp.Net

- ❖ cMayoCAD: Learn to build a new CAD program from scratch
  using a Geometric Modeling Kernel and CSharp

- ❖ CATIA Automation with Python and Machine Learning
- ❖ Solid Edge Automation with Python + Machine Learning
- ❖ SolidWorks Automation with Python + Machine Learning
- ❖ Inventor Automation with Python + Machine Learning

- ❖ Fast track course in Python with Machine Learning for CSharp experts

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