



# Creo Elements/Direct LISP Introduction

## Curriculum Guide

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**Course Code:** M908W (Internet version)

**Course Length:** 4 days each time 4 hours/day through internet

### **Overview**

In this course the students will learn the basic methodologies, options and programming commands of Creo Elements/Direct LISP.

For every topic the students will be also instructed on tips and best practices.

### **Course Objectives**

This course will provide students with:

- An understanding of Basic of LISP inside Creo Elements/Direct.
- An understanding of the advantages of programming with LISP language.
- An understanding of using Creo Elements/Direct Modeling commands inside LISP.

At the end of the training, students will have enough informations to write basic LISP examples for Creo Elements/Direct.

### **Prerequisites**

- The student must be able to have an understanding of programming concepts.
- The student must have current experience with Creo Elements/Direct Modeling.
- Prior use of another 3D CAD system is helpful, but is not required.

### **Audience**

- Programmers
- Mechanical engineers

## **Content**

### 1. Session

- 1.1 Basic of LISP
- 1.2 Syntax of LISP
- 1.3 Global Variables
- 1.4 Local Variables
- 1.5 Numbers
- 1.6 Calculations
- 1.7 Conditions

### 2. Session

- 2.1 Strings and String Manipulations
- 2.2 List and List Operators
- 2.3 Structures and Arrays
- 2.4 Functions

### 3. Session

- 3.1 Optional Parameters
- 3.2 Arbitrary Parameters
- 3.3 Keyed Parameters
- 3.4 Iterations
- 3.5 File Input and Output

### 4. Session

- 4.1 How to use Reference Manual and Recorder
- 4.2 Editors (Ultra Edit, Notepad++)
- 4.3 LISP for Creo Elements Direct, limitations and differences to Common LISP
- 4.4 Using Create 2D and Create 3D commands in LISP programs
- 4.5 Creo UI Dialog Generator
- 4.6 Tips and Tricks and recapitulation of the course in detail