

The GD&T Trainer Professional Edition – Web Version Installation Instructions

Introduction

The GD&T Trainer PE – Web Version is designed for use on multiple PCs with access to a web server or intranet. This document explains how to install the GD&T Trainer PE – Web Version on a web server or intranet.

The enclosed CD-ROM disc contains the lesson / quiz (html) files, course manifest (.xml) files and an electronic copy of these instructions. This version of the GD&T Trainer does not include a Learning Management System (LMS). It includes the HTML files that are viewed through a web browser and course manifest files for a SCORM 1.2 compliant LMS. If you wish to import the lessons and quizzes into your LMS, refer to the section called “Using a SCORM 1.2 Compliant LMS” on page 2 for further instructions.

Follow the instructions carefully when installing the GD&T Trainer. If any problems or questions occur during installation, please contact Effective Training Inc. at (734) 728-0909.

System Requirements

To ensure that the GD&T Trainer PE – Web Version will operate correctly and efficiently, the following software and hardware requirements should be met:

<i>Hardware Requirements (Minimum)</i>	
<i>Web Server or Intranet*</i>	<i>User’s Workstation</i>
<ul style="list-style-type: none"> • Pentium-based computer 400 MHz or higher • 256 MB RAM or higher • 450MB of hard drive space (minimum) for all courses except for the Fundamentals of GD&T – Class (Sections) <p><i>* The web server only stores file; , it does not run any processes. All processes are done on the user’s workstation.</i></p>	<ul style="list-style-type: none"> • Pentium-based computer 400 MHz or higher • 256 MB RAM or higher • Sound Blaster or compatible sound card is required for audio • Screen resolution must be set to 800 x 600 or greater • Color depth must be 16bit or greater
<i>Software Requirements</i>	
<ul style="list-style-type: none"> • Microsoft Windows 2000/2003, Unix, Novell 5 or later (updated to the latest service packs) • Web server software: IIS, Apache, etc. • SCORM 1.2 Compliant Learning Management System (LMS) - If managed through a LMS. 	<ul style="list-style-type: none"> • Microsoft Windows 2000/XP (US version updated to the latest service packs) • Macromedia Flash Player 7.0.14.0 or higher <p><u>Browser Requirements</u></p> <ul style="list-style-type: none"> • Browser must be Microsoft Internet Explorer 5.5 SP1 thru 6.x (including the latest service packs), the GD&T Trainer PE – Web Version has <u>not been fully tested</u> in Microsoft IE 7.x • Pop-up windows must not be disabled • The following settings must be enabled in the Internet Security Zone: <ul style="list-style-type: none"> - Run ActiveX controls and plug-ins - Scripting ActiveX controls marked safe for scripting

Courses Included

There are five courses included with The GD&T Trainer – Web Version. These courses are called:

- Fundamentals of GD&T – Class
- Fundamentals of GD&T – Seminar
- GD&T Certification Test
- GD&T Skills Survey
- GD&T Overview

These courses are located in their own folders in the “Courses” folder on the CD-ROM disc.

Because of the size of the “Fundamentals of GD&T – Class” course, some LMS’s may have difficulty importing the manifest file into their LMS. Therefore, the Fundamentals of GD&T Class course has also been divided into nine sections. These nine sections can be found in the “Fundamentals of GD&T – Class (Sections)” folder also located in the “Courses” folder on the CD-ROM disc.

A detailed listing of the lessons and quizzes for each course can be found in the section called “Course Module Location” on pages 3 thru 5.

Installing the GD&T Trainer Web Version

To install the GD&T Trainer Web version, upload each of the course folders, from the “Courses” folder on the CD-ROM disc to your web server.

NOTE: The “include89.js” file must remain outside of the Course Module folders for each course folder that is uploaded to your web server for the GD&T Trainer Web version to operate correctly.

If the GD&T Trainer PE Web Version is not imported into an LMS, any of the lesson/quiz folders may be renamed if necessary, but the contents of each folder must remain in that folder and not be altered in any way.

The only folder that must not be renamed is the "gdt_gloss" folder. This folder contains the Digital Design Dictionary, and the name of that folder must remain unchanged. The Digital Design Dictionary is not a lesson or a quiz. It is a component of the lessons. This folder should not be installed into the other lesson folders; however, it should be installed into the same location as the other lesson and quiz folders on the server.

Each of the folders contains an "index.html" file that is used to start the lesson or quiz. This version of the GD&T Trainer PE is designed to work over a web server or from a machine that is set up as a web server (running IIS, Apache, etc.). If you try to run the lessons locally on your machine, you may not hear the audio play on each page.

Using a SCORM 1.2 compliant LMS

If you’re using a SCORM 1.2 compliant Learning Management System (LMS) to administer the GD&T Trainer Web version, there are course manifest file for each course that can be used to import all of the lessons and quizzes from GD&T Trainer into your LMS. These course manifest file is only compatible with a SCORM 1.2 compliant LMS. If you are using an AICC compliant LMS, you will need to contact ETI for information on obtaining an AICC compliant LMS version of the GD&T Trainer Web version.

The course manifest files are located in the folder called “Course Manifest Files” folder. When importing each course manifest file, it will create an instructional block for each course in your LMS. Each one of these instructional blocks will also have the appropriate lessons and quizzes assigned to their instructional block. When importing a course manifest file, simply supply the appropriate directory where the files are located on the server. The “index.html” launch page for each lesson/quiz will be written to your LMS during the import.

NOTE: If your LMS does not support instructional blocks, then these instructional blocks will not be created when the manifest file is imported into your LMS.

Creating custom courses in a SCORM 1.2 compliant LMS

If you’re using a SCORM 1.2 compliant Learning Management System (LMS) to administer the GD&T Trainer Web version, you can import any of the lessons and/or quizzes into your LMS to create custom courses. To import any of the lessons/quizzes, just use the “imsmanifest.xml” manifest file located in each of the lesson/quiz folders to import that lesson or quiz into your LMS.

File Format and Structure

- The modules – lessons, quizzes, tests (Skills Survey, Final Exam and Certification Test), and dictionary are in an HTML format which are SCORM 1.2 compliant.
- Manifest files (.xml) are included for each of the courses. These manifest files are located in the “Course Manifest Files” folder on the CD-ROM disc. When imported into a SCORM v1.2 compliant Learning Management System (LMS), each course manifest file creates an instructional block and course modules.
- Approximately 5,441 audio files in (.swf) format are included. The individual file sizes range from 11KB to 250KB. The total disk size for all of the audio files is approximately 223MB for all of the courses combined except for the “Fundamentals of GD&T – Class (Sections)” course. All of the audio files are located in a folder called “Audio” in each module folder for each course. These files must not be moved or altered in any way when uploading the modules to your web server.
- Approximately 351 animation files in (.swf) format are included. The individual file sizes range from 6KB to 150KB. The total disk size for all of the animation files is approximately 12.25MB for all of the courses combined except for the “Fundamentals of GD&T – Class (Sections)” course. All of the animation files are located in a folder called “media” in each module folder for each course. These files must not need be moved or altered in any way when uploading the modules to your web server.

Course Module Location

Below is a listing of all of lesson and quiz modules for each course folder and the specific folder that the modules are located in.

Course Folder: Fundamentals of GD&T – Class**

Description: This is a complete course in the Fundamentals of Geometric Dimensioning and Tolerancing (GD&T) based on the ASME Y14.5M-1994 dimensioning and tolerancing standard. This course will teach an individual a basic understanding of the symbols, modifiers, rules, and concepts used in GD&T

<u>Module</u>	<u>Folder</u>	<u>Module</u>	<u>Folder</u>
Dimensions and Drawings	RES1	Quiz: Perpendicularity	RES30
Quiz: Dimensions and Drawings	RES2	Angularity	RES31
Key Terms	RES3	Quiz: Angularity	RES32
Quiz: Key Terms	RES4	Parallelism	RES33
Modifiers and Symbols	RES5	Quiz: Parallelism	RES34
Quiz: Modifiers and Symbols	RES6	Position – Introduction	RES35
GD&T Rules	RES7	Quiz: Position – Introduction	RES36
Quiz: GD&T Rules	RES8	Position – RFS/MMC/LMC	RES37
GD&T Concepts	RES9	Quiz: Position – RFS/MMC/LMC	RES38
Quiz: GD&T Concepts	RES10	Position – Special Applications	RES39
Flatness	RES11	Quiz: Position – Special Applications	RES40
Quiz: Flatness	RES12	Fastener Formulas	RES41
Straightness	RES13	Quiz: Fastener Formulas	RES42
Quiz: Straightness	RES14	Concentricity	RES43
Circularity	RES15	Quiz: Concentricity	RES44
Quiz: Circularity	RES16	Symmetry	RES45
Cylindricity	RES17	Quiz: Symmetry	RES46
Quiz: Cylindricity	RES18	Circular Runout	RES47
Planar Datums	RES19	Quiz: Circular Runout	RES48
Quiz: Planar Datums	RES20	Total Runout	RES49
Datum Targets	RES21	Quiz: Total Runout	RES50
Quiz: Datum Targets	RES22	Introduction to Profile	RES51
Size Datums (RFS)	RES23	Quiz: Introduction to Profile	RES52
Quiz: Size Datums (RFS)	RES24	Profile of a Surface	RES53
Size Datums (MMC)	RES25	Quiz: Profile of a Surface	RES54
Quiz: Size Datums (MMC)	RES26	Profile of a Line	RES55
Orientation Controls	RES27	Quiz: Profile of a Line	RES56
Quiz: Orientation Controls	RES28	Final Exam	RES57
Perpendicularity	RES29		

Course Folder: Fundamentals of GD&T – Seminar**

Description: This is a complete seminar in the Fundamentals of Geometric Dimensioning and Tolerancing (GD&T) based on the ASME Y14.5M-1994 dimensioning and tolerancing standard.

<u>Module</u>	<u>Folder</u>	<u>Module</u>	<u>Folder</u>
Dimensions and Drawings	RES1	Perpendicularity	RES15
Key Terms	RES2	Angularity	RES16
Modifiers and Symbols	RES3	Parallelism	RES17
GD&T Rules	RES4	Position – Introduction	RES18
GD&T Concepts	RES5	Position – RFS/MMC/LMC	RES19
Flatness	RES6	Position – Special Applications	RES20
Straightness	RES7	Fastener Formulas	RES21
Circularity	RES8	Concentricity	RES22
Cylindricity	RES9	Symmetry	RES23
Planar Datums	RES10	Circular Runout	RES24
Datum Targets	RES11	Total Runout	RES25
Size Datums (RFS)	RES12	Introduction to Profile	RES26
Size Datums (MMC)	RES13	Profile of a Surface	RES27
Orientation Controls	RES14	Profile of a Line	RES28

Course Folder: Certification Test*

Description: This is a 150 question test that verifies the student's mastery of the Fundamentals of GD&T.

<u>Module</u>	<u>Folder</u>
GD&T Certification Test	RES1

Course Folder: GD&T Skills Survey*

Description: This is a 50 question survey that verifies the student's mastery of the Fundamentals of GD&T.

<u>Module</u>	<u>Folder</u>
GD&T Skills Survey	RES1

Course Folder: GD&T Overview**

Description: A general overview of the symbols, modifiers, rules and concepts used in GD&T based on the ASME Y14.5M-1994 Dimensioning and Tolerancing standard.

<u>Module</u>	<u>Folder</u>	<u>Module</u>	<u>Folder</u>
Introduction to GD&T	RES1	Orientation Controls	RES11
Quiz: Introduction to GD&T	RES2	Quiz: Orientation Controls	RES12
Symbols, Modifiers, Rules & Concepts	RES3	Tolerance of Position Control	RES13
Quiz: Symbols, Modifiers, Rules & Concepts	RES4	Quiz: Tolerance of Position Control	RES14
Form Controls	RES5	Concentricity & Symmetry Controls	RES15
Quiz: Form Controls	RES6	Quiz: Concentricity & Symmetry Controls	RES16
Introduction to the Datum System	RES7	Runout Controls	RES17
Quiz: Introduction to the Datum System	RES8	Quiz: Runout Controls	RES18
Feature of Size Datums	RES9	Profile Controls	RES19
Quiz: Feature of Size Datums	RES10	Quiz: Profile Controls	RES20

Course Folder: Fundamentals of GD&T – Section 1: Introduction**

Description: This course covers dimensions and tolerances, GD&T terms, modifiers, symbols and rules.

<u>Module</u>	<u>Folder</u>	<u>Module</u>	<u>Folder</u>
Dimensions and Drawings	RES1	Quiz: Modifiers and Symbols	RES6
Quiz: Dimensions and Drawings	RES2	GD&T Rules	RES7
Key Terms	RES3	Quiz: GD&T Rules	RES8
Quiz: Key Terms	RES4	GD&T Concepts	RES9
Modifiers and Symbols	RES5	Quiz: GD&T Concepts	RES10

Course Folder: Fundamentals of GD&T – Section 2: Form Controls****Description:** This course covers flatness, straightness, circularity, and cylindricity.

<u>Module</u>	<u>Folder</u>	<u>Module</u>	<u>Folder</u>
Flatness	RES1	Circularity	RES5
Quiz: Flatness	RES2	Quiz: Circularity	RES6
Straightness	RES3	Cylindricity	RES7
Quiz: Straightness	RES4	Quiz: Cylindricity	RES8

Course Folder: Fundamentals of GD&T – Section 3: Datums****Description:** This course covers planar datums, datum targets, and feature of size datum specifications at RFS and MMC.

<u>Module</u>	<u>Folder</u>	<u>Module</u>	<u>Folder</u>
Planar Datums	RES1	Size Datums (RFS)	RES5
Quiz: Planar Datums	RES2	Quiz: Size Datums (RFS)	RES6
Datum Targets	RES3	Size Datums (MMC)	RES7
Quiz: Datum Targets	RES4	Quiz: Size Datums (MMC)	RES8

Course Folder: Fundamentals of GD&T – Section 4: Orientation Controls****Description:** This course covers an introduction to the orientation controls, perpendicularity, angularity, and parallelism.

<u>Module</u>	<u>Folder</u>	<u>Module</u>	<u>Folder</u>
Orientation Controls	RES1	Angularity	RES5
Quiz: Orientation Controls	RES2	Quiz: Angularity	RES6
Perpendicularity	RES3	Parallelism	RES7
Quiz: Perpendicularity	RES4	Quiz: Parallelism	RES8

Course Folder: Fundamentals of GD&T – Section 5: Position Controls****Description:** This course covers an introduction to tolerance of position, RFS, MMC and LMC tolerance of position applications, special applications using tolerance of position, and the fastener formulas.

<u>Module</u>	<u>Folder</u>	<u>Module</u>	<u>Folder</u>
Position – Introduction	RES1	Position – Special Applications	RES5
Quiz: Position – Introduction	RES2	Quiz: Position – Special Applications	RES6
Position – RFS/MMC/LMC	RES3	Fastener Formulas	RES7
Quiz: Position – RFS/MMC/LMC	RES4	Quiz: Fastener Formulas	RES8

Course Folder: Fundamentals of GD&T – Section 6: Concentricity/Symmetry****Description:** This course covers the concentricity and symmetry controls.

<u>Module</u>	<u>Folder</u>	<u>Module</u>	<u>Folder</u>
Concentricity	RES1	Symmetry	RES3
Quiz: Concentricity	RES2	Quiz: Symmetry	RES4

Course Folder: Fundamentals of GD&T – Section 7: Runout Controls****Description:** This course covers the circular and total runout controls.

<u>Module</u>	<u>Folder</u>	<u>Module</u>	<u>Folder</u>
Circular Runout	RES1	Total Runout	RES3
Quiz: Circular Runout	RES2	Quiz: Total Runout	RES4

Course Folder: Fundamentals of GD&T – Module 8: Profile Controls****Description:** This course covers an introduction to profile, the profile of a surface control, and the profile of a line control.

<u>Module</u>	<u>Folder</u>	<u>Module</u>	<u>Folder</u>
Introduction to Profile	RES1	Quiz: Profile of a Surface	RES4
Quiz: Introduction to Profile	RES2	Profile of a Line	RES5
Profile of a Surface	RES3	Quiz: Profile of a Line	RES6

Course Folder: Fundamentals of GD&T – Section 9: Final Exam*

Description: This course contains a 50 question final exam which covers all of the material from the GD&T Fundamentals class modules 1 through 8.

<u>Module</u>	<u>Folder</u>
Final Exam	RES1

* Course folder includes the “include89.js” file.

** Course folder includes both the “include 89.js file and the “gdt_gloss” folder.