



IADS Training Syllabus

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***CURTISS -
WRIGHT***

IADS Basic Module

Length: 8 Hours

Prerequisite: None

Introduction

- IADS Real-Time

- IADS Real-Time Station

Post-Test Data Server

- The Configuration File

- Choosing a Configuration File

- Post-Test Data Server User Interface

- Importing Data Sets

- Post-Test Global Time

- The Z Ball

IADS Client Playback

Logging on and Off

The Desktop

- Changing Desktops and the IADS Dashboard

- Desktop Properties

IADS Display Builder

- Adding ActiveX Displays

IADS Parameter Tool

Message Log

System Performance and the Configuration Tool

- Configuration Tool Save Options

- Configuration Toolbar Buttons
- Table Filter
- Import/Export Desktops and Analysis Windows
- Configuration Tool Envelopes
- Configuration Tool Reference Envelopes
- The Config Tool - The Parameter Defaults Table
- Global Parameter Replace and Drag Fill
- Parameter Selection
- More Configuration Tool Tables
- Planned Test Points
- System Folder
- Validating Parameters and Desktops
- Creating Windows and Displays
 - Viewing Analysis Windows from other Desktops
 - Analysis Window Security
 - Renaming Analysis Windows
 - Setting the Analysis Window to Full Screen
 - Analysis Window Scrollbar
 - Creating Displays
 - Analysis Window Toolbar
 - Creating Multiple Displays
 - Analysis Window Advanced Scrollbar Features
 - Changing Analysis Window
 - Assigning a Window to a Secondary Monitor
 - Creating a New Desktop

- Aligning IADS Displays
- Copying a Parameter Display to Display
- Screen Operations
 - Selecting Displays
 - Moving a Display
 - Copying Displays
 - Resizing Displays
 - IADS Parameter Tool
 - Adding a Parameter to a Display
 - Missing Data Indicator
 - Zooming Data and Saving Displays
 - Deleting a Parameter from a Display
 - Setting the Order of Displays
 - Setting a Displays Viewable Area
- Label Display, Tabbed Display, and Display Panels
- Filtering
- Stripcharts
 - Fill Intersection/Wrap Data
 - Load Limit
 - Show Time and Load Limit on Stripchart Hints
 - Point Selection
 - Point Selection on Multiple Displays
 - Logging Point Selections
 - Slope/Time/Load Limit Selection
- Event Markers

Adding Predefined Comments to Event Markers

The IADS Logs

Customizing Displays

Help System

IADS Intermediate Module

Length: 8 Hours

Prerequisite: Basic module

Introduction

Defining Parameters and Editing Functions

- Importing Configuration Information

- Desktop Summary Report

- Advanced Import of Desktops and Analysis Windows

- Derived Parameters

- Importing Derived Equations

- Sample Derived Parameters and Troubleshooting Derived Parameters

- Derived Functions and Operators

 - Bitwise Operation

 - Byte Swap

 - Equation Functions

Customizing Displays

- Property Sheet Gray States

- Stripchart with Threshold Set

Frequency Plots

- Recalculate Frequency Data on a Scrolled Back Frequency Plot

- Frequency Plot Toolbar Buttons

- Color Schemes in Frequency Plots

Cross Plots

- Adding Parameters to a Cross Plot

- Load Limit Algorithms

- Adding an 80% Envelope & Data History Color

- Setting an Event Marker in a Cross Plot

- Changing Cross Plot Envelopes on the Fly

- Dynamic Envelopes

Annunciators

- Slider

- Alphanumeric

 - Dynamic Wizard

- Alphanumeric Table

ActiveX Displays

- Model Displays

- Using Model Displays

- Active X Property Sheets

- Active X Audio and Video Player

- IADS Drawing Package

- Setting the Default Size of a Active X Control

- Polygon and Line Function Keys

- Right Click Menu Options

- IADS Drawing Package Properties Dialog Interface

- Adding Parameters to Drawing Package Components

- Defining Drawing Package Primitives

- Dynamics Example

Using the Dynamic Wizard on Components

Primitive Help Topics

IADS Moving Map

- 2D
- 3D
- Radar Settings

ICAW Display

Function Keys

- Hot Keys

Logging Data

Exporting Data

The IADS Logs

Defining Event Marker Groups and Subgroups

The Query Builder

IADS Advanced Module

Length: 8 Hours

Prerequisite: Basic and Intermediate modules

Introduction

Client Application Properties

Setting Test Points

- Pushing Event Markers to the Test Point Log

- Exporting Multiple Time Slices Simultaneously

- Test Data Request (TDR)

Web Pages

Input Objects

- Text Input Objects

- Button Input Objects

- Other Input Objects

- Distributing User Input Objects

- Action Objects

- Overlay Objects

Edit Toolbox

- Edit Toolbox - Layers

- Edit Toolbox - Edit

- Edit Toolbox - Library

Primitives Driven by Test Point State

Go to Definition

Derived Parameters

 If Then Else Statements

 Null Corrections

 Derived Functions and Operators

 Operator Precedence

 Parameter Analysis Tool

 Displaying Decom Status

 Sync Lock Processing

 TPP Rate Selection Dialog

 Time in Derived Equations

 Derived Equations FAQ

Interpolation

 2D

 3D

Data Editing and Derived Parameters

Wild Point Editing

Selective Area RMS (Root Mean Squared) and Selective Area Peak

Data Search Tool

Defining the Parameter Tool

 Parameter Tool Options

 Identify Displays

Data Stitching in a Stripchart

 Stripchart Toolbox

Stripchart Data Grid Setup

Time lag

Data Stitching in a Frequency Plot

Data Export Options

Mission Attributes

Unit Conversion

File Search Path

TMATS

IADS Advanced Structures

Length: 8-10 hours

Prerequisite: Basic and Intermediate modules

Introduction

Client Application Properties

Setting Test Points

- Pushing Event Markers to the Test Point Log

- Exporting Multiple Time Slices Simultaneously

- Test Data Request (TDR)

Web Pages

Input Objects

- Text Input Objects

- Button Input Objects

- Other Input Objects

- Distributing User Input Objects

- Action Objects

- Overlay Objects

Edit Toolbox

- Edit Toolbox - Layers

- Edit Toolbox - Edit

- Edit Toolbox - Library

Primitives Driven by Test Point State

Go to Definition

Derived Parameters

If Then Else Statements

Null Corrections

Derived Functions and Operators

Operator Precedence

Parameter Analysis Tool

Displaying Decom Status

Sync Lock Processing

TPP Rate Selection Dialog

Time in Derived Equations

Derived Equations FAQ

Interpolation

2D

3D

Data Editing and Derived Parameters

Wild Point Editing

Selective Area RMS (Root Mean Squared) and Selective Area Peak

Data Search Tool

Defining the Parameter Tool

Parameter Tool Options

Identify Displays

Data Stitching in a Stripchart

Stripchart Toolbox

Stripchart Data Grid Setup

- Time lag
- Data Stitching in a Frequency Plot
- Data Export Options
- Mission Attributes
- Unit Conversion
- File Search Path
- TMATS
- Configuration File Tables
 - The Configuration File (FES Parameters)
 - FES Parameters Defined
 - Planned Test Points
 - Planned Flutter Test Points
 - Modal Definitions Table
 - Automated Analysis and Derived Parameters
- Octave Band
- Nyquist Plots
- Frequency Response Plots
 - Phase Wrap Options
 - Creating Frequency Plot Reference Envelopes
 - Calculating Phase and Gain Margins
 - Calculating Frequency and Damping Using RFP Curve Fit
- Flutter Sweep Processing (F-35 Only)
- Removing Noise from Data
 - Randomdec
 - Real Time Randomdec

- Auto Correlation
- Pseudo Randomdec
- Analysis Methods
 - Log Decrement Results
 - Log Amplitude Picking Results
 - Time History Curve Fit
 - Half Power Damping
 - Analysis via the Right Click Menu
 - Chirp Z Transform
- Automated Analysis
 - Automated Analysis Overview
 - Plotting Flutter Results
 - Deleting Data Overlays
 - Analysis Log
 - Flutter Summary Log
 - Modal Definitions Log
 - Flutter Test Point Log
 - Summarizing Data
- Flutter Summary Plots
 - Summary Plot Right Click Menu
- Loads Analysis
 - Loads Summary Plot

IADS Instrumentation, Data Management, Post Test Processing Training

Length: 8 hours

Prerequisite: None

Introduction

IADS Real Time

IADS Real Time Station

Post Test Data Server

The Configuration File

Post Test vs. Playback Client

The Z Ball

Starting Post Test IADS

Post Test Data Server User Interface

IADS Playback Client

Logging On and Off

Desktops and Desktop Properties

The Desktop

IADS Display Builder

IADS Display Builder Active X Control Tab

Adding Active X Displays

Creating Windows and Displays

Security

Creating Displays

Adding a Parameter to a Display

Deleting a Parameter from a Display

Changing the Name of an Analysis Window

Analysis Window Features

Missing Data Indicator

Customizing Displays – Property Sheets

Stripchart Property Sheet

Active X Controls for IADS Native Displays

Active X Property Sheets

Active X Control Names

Setting an Analysis Window to Full Screen

Assigning a Window to a Second Monitor

Analysis Window Scrollbar

Changing Desktops and the Dashboard

Viewing Analysis Windows from other Desktops

ADS Message Log

System Performance and the Configuration Tool

Save Options

Configuration Toolbar Buttons

Table Filter Dialog

Import/Export Desktops and Analysis Windows

Advanced Import/Export Desktops and Analysis Windows

Importing Configuration Information

The Parameter Defaults Table

Defining Parameters and Editing Functions

- Derived Parameters

- Importing Derived Equations

- Troubleshooting Derived Parameters

- Validating the Desktop

- Validating the Parameter Defaults Table

- Derived Functions and Operators

- IfThenElse Statements

- Identify Displays

Parameter Analysis Tool

More Configuration Tables

- Data Groups

- Mission Attributes

- Unit Conversion

- Classification

- File Search Path

Desktop Summary Reports

Parameter Usage Report

Derived Function Lookup Tool

ICAW Display

Tab Display

Hot Keys

Logging Point Selections

Logging Data

- Test Data Request Form

The IADS Logs

The Event Marker Log

Defining Event Marker Groups and Subgroups

Exporting Multiple Time Slices Simultaneously

Exporting Data

Data Export Wizard

Displaying Decom Status

Help System

TMATS

IADS Display Client Properties

IADS Operator Console Training

Length: 8 hours

Prerequisite: None, however the class is limited to 4 students

Using the Operator Console to manage the IADS Real-Time system

Configuration Management

Catastrophes scenarios