Honeywell

Applied Display Builder

5731 R210

01/00

TotalPlant

Notices and Trademarks

This module supports **TotalPlant** Solution (TPS) system network.

TPS is the evolution of TDC 3000^{X}.

Honeywell Inc.
Industrial Automation and Control
Automation College
2820 West Kelton Lane
Phoenix, AZ 85053-3028
1-800 852-3211

Introduction

Welcome to the Applied Display Builder Course. The Applied Display Builder covers topics that may be new to you; its goal is to help you apply the GUS Display Builder to your plant's projects.

Who this course is for

This course is intended for:

- Display building personnel who want an in-depth understanding of display techniques.
- Personnel who have to maintain GUS displays.

What you will be able to do at the end of the course

At the end of the course, you will have the necessary skills and knowledge to apply the Display Builder to your site. You will be able to:

- Begin creating your own library of display objects.
- Decide between display building approaches.
- Interpret performant display building approaches.
- Use the guidelines as stated in the Display Builder Authoring tutorial.

Course Pre-requisites

You should have completed the introductory display building course material contained in the 5715, 5710, 5711 or 5723 courses. Also you should have an understanding of LCN implementation, as the course requires familiarity with LCN points and their parameters.

To get the most out of the course, it is not necessary to have Visual Basic scripting skills, but you must have some understanding of programming concepts.

How this course is presented

This course is presented in an instructor-led group workshop format. You are encouraged to share you experiences and display building goals with the class.

Most of the course consists of hands-on lab time. You will get to review techniques and examples provided to the training center that came from several experienced display building experts.

If you have ever done any programming in the past, you know that one of the best ways to learn code is to examine and "reverse engineer" code written by other users. And that's what you will get to do in this course.

About this course

This course provides real-world examples that, if you should decide to do so, you can begin using in your plant's displays.

What's in the Course Material

The course material provides in depth discussion of concepts relating to display building such as the GUS architectural model and user interface guidelines. Having an understanding of these concepts helps you build displays without having to refer to a lot of rules.

The lab exercises consist of either a concept only lab or an application lab. A concept lab introduces a complex topic such as event procedures or display database (dispdb). If a concept lab is presented, it will be identified as such. Application labs also include concepts, but those concepts are presented in the context of performing job-related work.

Topics covered in the course

The following topics are covered in the course:

Interpret the Display Builder architecture in terms of building performant displays

Examine Display Database (DDB) types and format

Practice using actors and collectors in a display

Apply performant scripting techniques

Script performant error handlers

Review the functionality of GUS R200

Practice using the GUS Solution Pack

Examine display building conventions

Script performant embedded displays

Build a standard and custom change zone

Insert a custom trend control

Assess the performance of a GUS display

Examine TPS Network data owner load optimization

Add ActiveX (OLE) controls

Summary

The Applied Display Builder course provides personnel responsible for building GUS displays the skills and knowledge needed to apply the GUS Display Builder to a plant project. The Applied Display Builder course shows you how to organize a display building effort, provides more in-depth coverage of scripting and display performance in terms of Display Builder Authoring guidelines, and describes available GUS R120 display building tools. At the end of the course you will be able to build performant displays and apply them to a plant project.

Lab Simulation

Introduction

This is the lab simulation to be used with the Applied Display Builder course.

The intent of this section is for the student to become familiar with the process that they will be using throughout the course.

The Point types

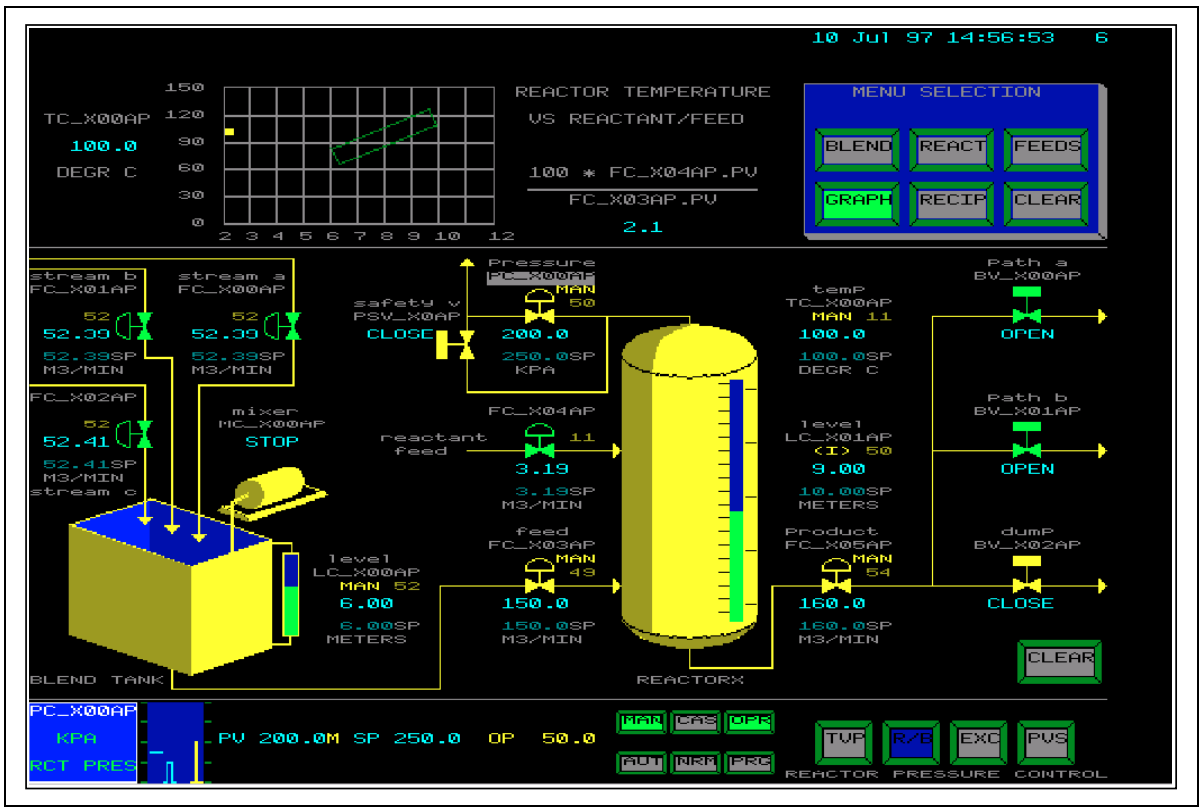
The point types used in the simulation are:

Points	Type	Device
FC_00251	RegAM	AM
FC_01251	RegAM	AM
FC_02251	RegAM	AM
FC_03251	RegAM	AM
FC_04251	RegAM	AM
FC_05251	RegAM	AM
LC_00251	RegAM	AM
LC_01251	RegAM	AM
PC_00251	RegAM	AM
TC_00251	RegAM	AM
MC_00251	DC	HPM
BV_00251	DC	HPM
BV_02251	DC	HPM
BV_01251	DC	HPM
PSV_0251	DC	HPM
PSV_0251	DC	HPM
FVO00251	DI	HPM
BVI01251	DI	HPM
BVI02251	DI	HPM
BVI00251	DI	HPM
PSVI0251	DI	HPM
BVO02251	DO	HPM
BVO00251	DO	HPM
BVO01251	DO	HPM
PSVO0251	DO	HPM
FVI00251	DO	HPM
SETDI251	Logic	HPM

Note: **The above list represents one of 12 partitions that will be used in this course. This is Partition 251.**

Simulation Display

The LCN schematic name is ReactXXX where XXX will represent your Partition number.



CL PROGRAMS

The Following are the CL programs that will be running in the AM:

- AM_FLAG.CL
- PRODFLWX.CL
- RATIO_AP.CL
- REACT_AP.CL
- FLOW_AP.CL

Once the partition is fully loaded, the simulation will run and the student is not expected to make any changes to this simulation.

If the simulation is not running, please contact your Course Manager/Instructor for help.

About the Process

The process is relatively simple. It is considered to be a continuous process.

1. Three feeds, labeled Streams A, B and C are fed into the blend tank.
2. A mixer mixes them, and this mixture is sent to the reactor, where a reactant is mixed with it.
3. The completed mixture is emptied either Path A, Path B or both.
4. The temperature and pressure of the reactor are monitored.
5. The Menu selection allows the user to view the Blend, React, Feeds, Recipe and a Bar Graph that shows if the final product is on spec.
6. The process will automatically shutdown if the pressure in the reactor reaches a critical level. If this happens, then a smart procedure will be invoked and reset the process.

Summary

Throughout the course the student will use the prebuilt points for lab exercises.

At the end of the course the student will have a functional display that will represent the process and will be able to monitor and control this simulated process.

Last Page