

uniformance

Overview of Uniformance Application Server

Lesson Objective

Objective

Control the execution of the following standard Uniformance PHD applications:

- PHD to Relational
- Relational to PHD
- Tag Synchronization

Topics

- Uniformance Application Server
- Scheduling and Configuration
- Schedule.dat and Config.cfg files
- Background Processes TPI Form
- Starting the Application Scheduler
- Platforms for Uniformance Applications

References:

- *Uniformance Background Processing Descriptions User Guide*, PIM1001 (Application Server section)
- *Uniformance System Environment User Guide*, SM0401 (Application Startup/Shutdown section)
- *Uniformance Application Server Installation Guide*, SM0501 (This is an internal Honeywell document.)

Uniformance Application Server - Definition

The Uniformance Application Server supports *scheduling and processing* for two classes of applications:

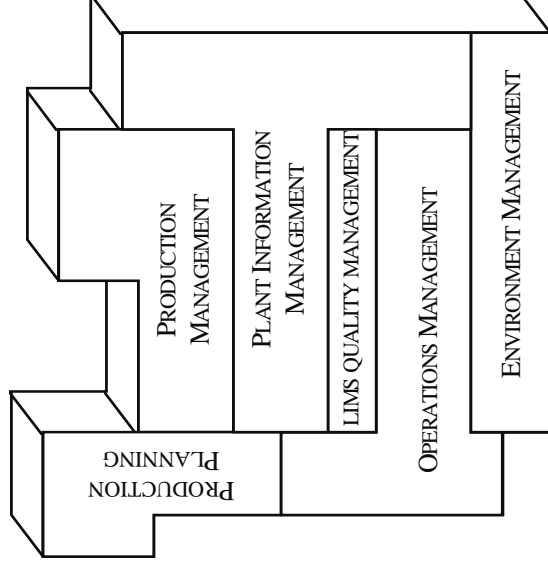
- PHD Applications
- Business.Flex Applications

The **PHD Applications** are a suite of software applications layered onto the PHD data historian, providing functions not available through the data historian. The PHD Applications include

- Tag Synchronization,
- PHD to Relational,
- Relational to PHD, and
- TPN Event Journals (purchased option).

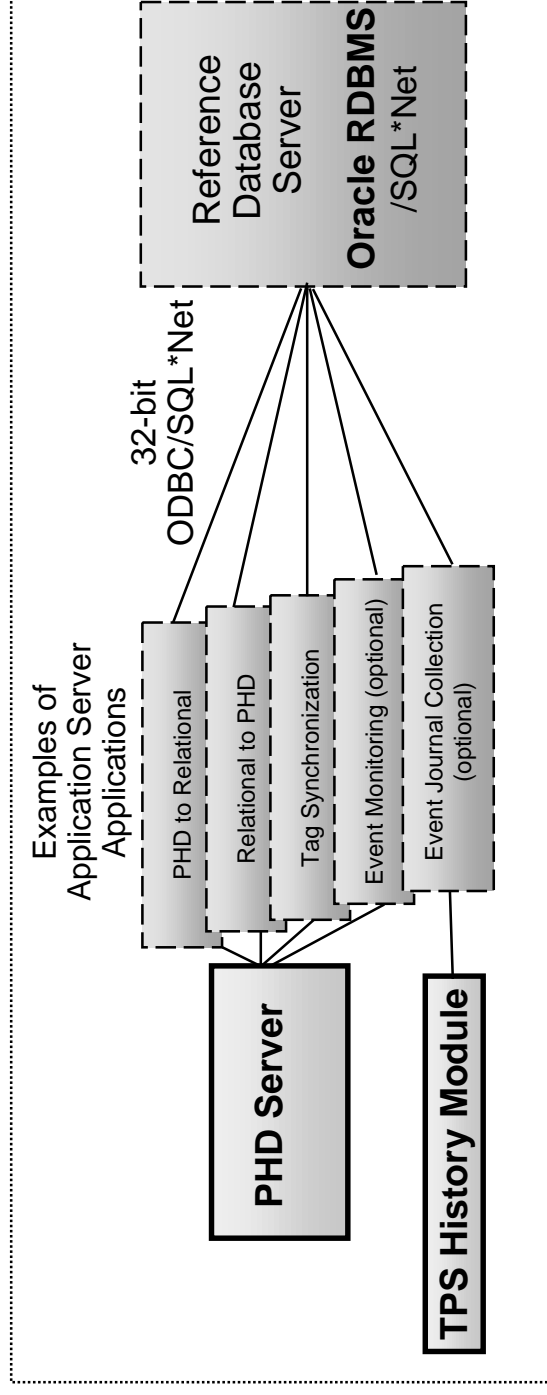
The **Business.Flex Applications** are a suite of integrated software applications that use PHD data to support higher level business decisions. Business.Flex applications include the following:

Quality Management	Production Management	Operations Management
<ul style="list-style-type: none">• LIMS Quality Management• Lab Data Integrator	<ul style="list-style-type: none">• Batch Tracking• Blend management• Lot Tracing• Production Accounting• Production Run Planning• Recipe Management• Tank Composition Tracking	<ul style="list-style-type: none">• Event Monitoring• Operations Monitoring• Operating Instructions• Operating Events• Well Test



Uniformance Application Server - Definition, continued

- PHD and Business.Flex applications are scheduled, either by the operating system (OpenVMS) or a scheduler application (Windows NT, AIX, and HP-UX).
- The Honeywell-installed Uniformance Application Server (also known as the background process scheduler), is the scheduler application for Windows NT, AIX, and HP-UX platforms.
- The Application Server produces an execution string and dispatches the appropriate processes with their respective arguments.
- The Application Server applications run periodically and process information contained in both the RDBMS and the real-time database. Processing is driven by application configuration data.
- This course discusses only the standard PHD applications.



Uniformance Application Server - Definition, continued

Applications Requiring the Uniformance Application Server

Application	Windows NT 4.0 SP3 or SP4	Alpha OpenVMS 7.1	RS/6000 AIX 4.2	HP-UX 10.2
Uniformance PHD Applications				
PHD To Relational	X	X	X	X
Relational To PHD	X	X	X	X
Tag Synchronization	X	X	X	X
TPN Event Journals	X	X		X
Business.Flex Applications				
Batch Tracking	X			
Blend Management	X			
Business Hiway	X			
Event Monitoring	X	X	X	X
Lab Data Integrator	X	X		
LIMS Quality Management	X	X		
Lot Tracing	X			
Operating Instructions	X			
Operations Monitoring	X	X		
Production Accounting	X	X		
Production Run Planning	X			
Recipe Management	X			
Tank Composition Tracking	X			
Well Test	X	X		

} Discussed in
this course.
Course 5708

Course 5708

LIMS/QM Implementation
Course 5801

Production Accounting
For Net Production Users
Course 5805

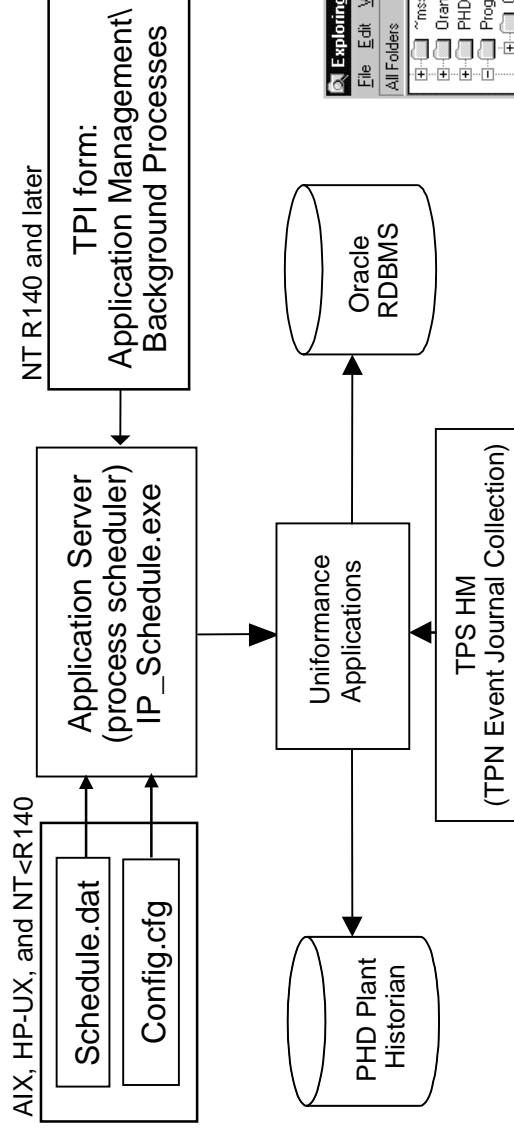
Shown at left are
additional training
courses available for
the Business.Flex
applications.

The following course
provides an overview of
Business.Flex
applications:

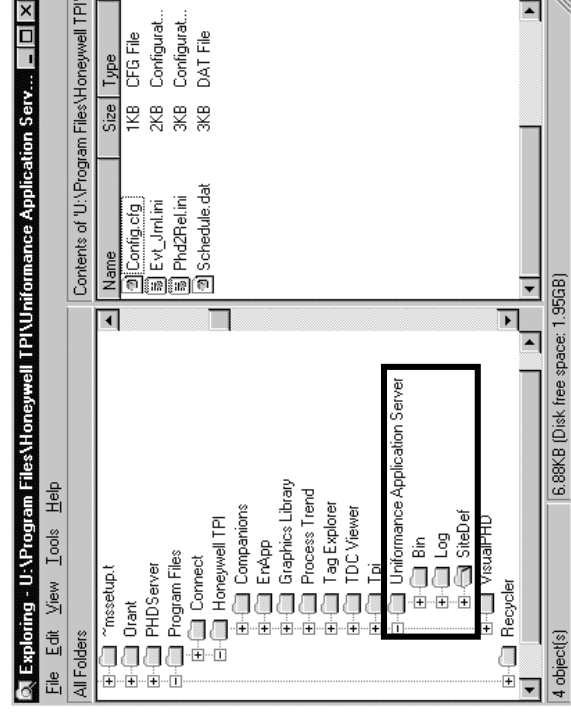
Uniformance Application
Overview
Course 5800

Scheduling and Configuration

- For AIX and HP-UX platforms, two files specify what applications will run and at what frequency (SCHEDULE.DAT and CONFIG.CFG).
- For NT platforms running Uniformance R140 and later, TPI Background Processes forms are used to configure and schedule applications. All entered parameters are stored in the Uniformance database. (Prior to R140, the SCHEDULE.DAT and CONFIG.CFG files were used on NT platforms.)

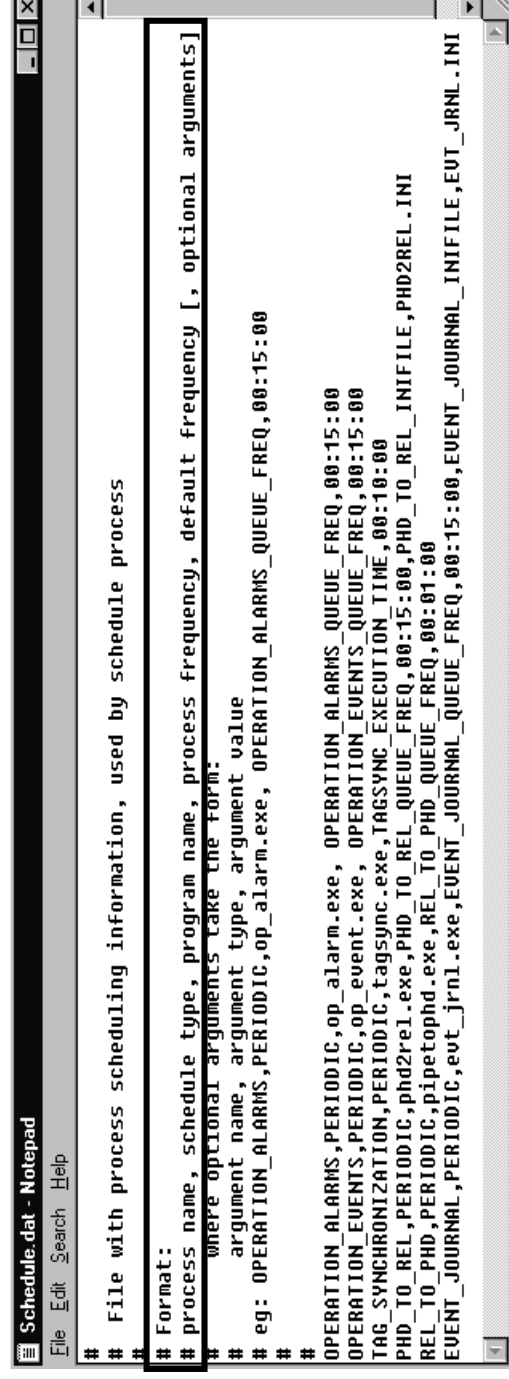


- Files related to the setup and configuration of the applications reside in %IP_ROOT%\SiteDef.
- Files output by the operation of the applications reside in %IP_ROOT%\Log.
- The IP_ROOT variable is defined as part of the Application Server installation.



Schedule.dat (AIX, HP-UX, and <R140 NT)

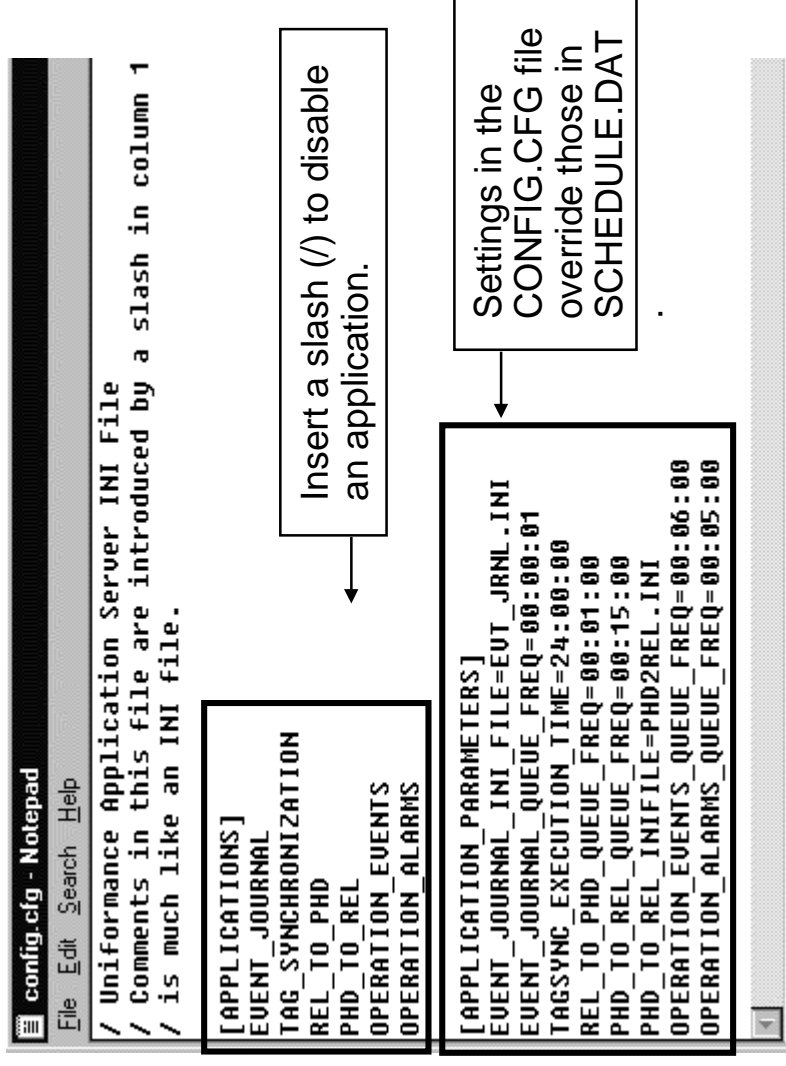
- The SCHEDULE.DAT file gives default information to the Application Scheduler.
- The Application Scheduler **reads the SCHEDULE.DAT file when it first starts** and does not read it again unless it is stopped and restarted.
- The SCHEDULE.DAT file gives the Application Scheduler the name of the executable which is to be run and relates it to the logical name referred to in CONFIG.CFG.



```
# Schedule.dat - Notepad
File Edit Search Help
#
# File with process scheduling information, used by schedule process
#
# Format:
# process name, schedule type, program name, process frequency, default frequency [, optional arguments]
# where optional arguments take the form:
#   argument name, argument type, argument value
# eg: OPERATION_ALARMS,PERIODIC,op_alarm.exe, OPERATION_ALARMS_QUEUE_FREQ,00:15:00
#
OPERATION_ALARMS,PERIODIC,op_alarm.exe, OPERATION_ALARMS_QUEUE_FREQ,00:15:00
OPERATION_EVENTS,PERIODIC,op_event.exe, OPERATION_EVENTS_QUEUE_FREQ,00:15:00
TAG_SYNCHRONIZATION,PERIODIC,tagsync.exe, TAGSYNC_EXECUTION_TIME,00:10:00
PHD_TO_REL,PERIODIC,phd2rel.exe,PHD_TO_REL_QUEUE_FREQ,00:15:00,PHD_TO_REL_INIFILE,PHD2REL.INI
REL_TO_PHD,PERIODIC,pipetophd.exe,REL_TO_PHD_QUEUE_FREQ,00:01:00
EVENT_JOURNAL,PERIODIC,event_jrn1.exe,EVENT_JOURNAL_QUEUE_FREQ,00:15:00,EUT_JRNL.INI
```

Config.cfg File (AIX and HP-UX and NT <R140)

- The CONFIG.CFG file lists the applications that are to run and the parameter information required by each application.
- Settings in CONFIG.CFG override the default settings in SCHEDULE.DAT.
- **This file is read every time an application is to run, making the values in this file dynamic.** You can change values and the next time the Application Server schedules the process, it updates the current configuration information.
- You can turn an application off by inserting a comment line (/) at the beginning of the application's name.



Background Processes Form (NT running R140 and later)

- On NT/R140 and later, the TPI form shown below replaces the SCHEDULE.DAT file previously supported on NT. The form entries are defined in the *Background Processing Descriptions User Guide* and in the *Uniformance TPI Application User Guide*.
- The background process named MSGLOGSERVER must be configured and enabled to ensure that the other background processes start.
- Information in the CONFIG.CFG file regarding application scheduling is NOT needed. The CONFIG.CFG still remains active since it contains parameters required by some applications.

Background processes that existed prior to R140 do not use the **Message Level** parameter or the **Status** tab.

TotalPlant Information - [Menu]

File Edit Records Window Help

Main Menu

Select Application

Application Management

Event and Alarm Monitoring

Fixed Plant Databook Configuration

Multi-Language

Process History

Select Form

Interface Error Message Log

Message Log

Process Last Run Date

Template Sequence Number

Windows Report Scheduler

Configuration

Background Processes

Interface Data Status and Review

LIMS Data Subscription

Select Report

Function Permissions Summary Report

Menu Access Summary Report

Security Roles Summary Report

User Profile Summary Report

TotalPlant Information - [Background Processes]

File Edit Records Window Help

Background Processes

Process Name

MSGLOGSERVER

Execution Type

C

Execution Frequency

1

Message Level

4

Next Execution Time

5/24/99 11:47

Description

Status

Parameters

Execution Statements

Operating System Name

Start Statement

Stop Statement

MSGLOGSERVER

Record: 1 of 1 (Filtered)

Message level to be used by the background process.

TotalPlant

Enter Query

Program Type

DB Proc

Enabled

Execution Node

Last Run Time

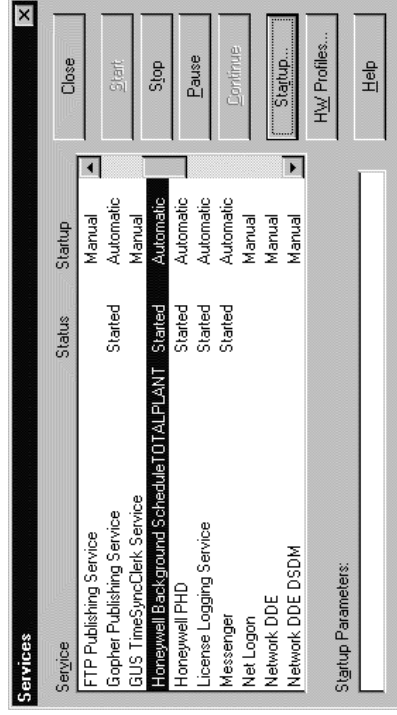
Starting and Stopping the Scheduler

It is necessary to ensure that the Application Scheduler is running, otherwise the Uniformance applications will not be scheduled and will not run.

For AIX and HP-UX - Cause the Schedule process to run when the system is started.

For NT - From the 'Services' window, set the HoneywellBackgroundScheduleTOTALPLANT service to Start and make the startup Automatic.

(If there is a need to stop the service, such as prior to a software upgrade, click the 'Stop' button. Upon receiving the stop signal, the Application Scheduler stops all running background processes.)



Prior to R150

While trying to stop all running background processes, the system might mistakenly think it is not stopping as requested, and may display a warning message saying that the service is not responding to the stop command. Click OK to ignore the message, and wait a few minutes before the service can be started again.

Once the Application Scheduler is running, the applications will be scheduled to run as specified through the TPI Background Processes form, or through the SCHEDULE.DAT and CONFIG.CFG files, depending on the platform being used.

The applications will then interact with PHD to perform their designed function.

Installation Requirements

The Applications require SQL*NET; therefore, the Application Scheduler and the Applications must be installed on a node that is an Oracle Client. If the Applications access PHD data, then the PHDNetAPI is required.

All applications except Event Journal may reside on a node other than the main PHD Server node.

This is accomplished by installing SQL*NET and using the PHDNetAPI.

Event Journal must run on a node connected to the LCN (PHD Node, AxM, or AXP connected to the LCN using CM50).

AIX and HP-UX platforms

It is recommended that the Application Scheduler and the Applications be installed on the same node as the Oracle Server. (The main reason is that the Applications will use the Oracle Operating System Authentication to login to Oracle, and using the Operating System Authentication for a remote connection is less secure.)

The AIX and HP-UX platforms allow the user name/password@TNS name to be passed as parameters, so you may do a remote installation without requiring the remote Operating System Authentication.

NT and OpenVMS platforms

The Application Scheduler and Applications can be installed on the same node as the PHD Server.

If Oracle is not installed on the PHD Server node, Oracle's Remote Operating System Authentication must be enabled.

Event Journal and PHD to REL

The applications Event Journal and PHD to REL each have an INI file that can be used to specify the name, password, and TNS name; so, a remote installation may be done without requiring the Remote Operating System Authentication.

Hands-on Exercise

Installation Checks

1. Look at the following components that must be installed and configured in order for the applications to run on an NT PHD Server:
 - ___ System Environment Variable IP_ROOT - Defines the location of the Application Server.
 - ___ Software Directory UNIFORMANCE APPLICATION SERVER (subdirectories BIN, SITEDEF, LOG)
 - ___ NT User named TOTALPLANT in PHD groups.
 - ___ NT Service named HONEYWELLBACKGROUNDSCHEДУLETOTALPLANT.
 - Its Startup configuration defines its login at startup to be TOTALPLANT /TOTALPLANT.

The Application Scheduler uses the configured Account Name to connect to Oracle. The Account Name will later be prefixed with whatever OS_AUTHENT_PREFIX has been configured in the database (Normally, the OPS\$ default is configured, and the Application Scheduler uses the resulting Account Name of OPS\$TOTALPLANT to connect to Oracle.)

- ___ PHD User name OPS\$TOTALPLANT with FULL PERMISSION

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