

SESSION PLAN

TC110

Introduction to PDS Compact 500

Module 1 – PDS Compact 500 Board Layout

Module 2 – DNPCconfig

Module 3 – IsaGRAF

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Course Summary and Equipment Requirements

This is a Knowledge session.

At the end of this course the participants will be able to identify the components found on a PDS Compact 500 board. They will be able to interrogate the unit with Hyperterminal and DNPCONFIG. They will also be able to use IsaGRAF to backup, restore and download applications that run on the PDS Compact 500.

It is broken up into the following modules

Module 1	- Introduction to the PDS Compact 500. Identification of the circuit board and means of low level interrogation.
Duration	- 60 minutes
Module 2	- Use of DNPCONFIG – Serck Windows software for interrogation and setup of the PDS Compact 500
Duration	- 60 minutes
Module 3	- IsaGRAF – Download and monitoring of IsaGRAF applications.
Duration	- 60 minutes

The following equipment is required

- Item 1 – laptop for each participant with DNPCONFIG and IsaGRAF installed.
- Item 2 – 2 PDS Compact 500 units
- Item 3 – data projector.

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1 Purpose Statement

At the end of this session the participants will be able to identify the components of a PDS Compact 500 and interpret the indication lights that may be present on the equipment.

The participants will be able to use Hyperterminal, DNPCONFIG and IsaGRAF to monitor and configure the equipment.

2 Introduction

The PDS Compact 500 is mainly used at the Neerabup GWTP and associated borefield..

The equipment is used to provide control and communication around the Neerabup borefield. Each module either communicates between a local control PLC and the plant or does both bore control functions and communicates to the plant.

Serck have provided DNPCONFIG software for setup of the units and licensed IsaGRAF to run applications within the units. It is also possible to communicate with the units at a low level to calibrate analog inputs using a terminal program such as Hyperterminal.

2.1 Why the Participants have been Chosen

The participants of this course have been chosen because of their need to maintain and replace PDS Compact 500 units.

2.2 Where This Course Fits in

Participants are required to have a basic competency with a computer and the Windows XP environment. The course is stand alone due to the restricted use of PDS Compact 500 units within the Water Corporation.

2.3 Objectives of the Course

The objectives of this course are that the participants learn to

- Describe the layout and jumpers of a PDS Compact board.
- Interrogate and calibrate a unit using a terminal program.
- Interrogate and modify a unit using DNPCONFIG.
- Restore, download and monitor IsaGRAF applications.

2.4 How the Session Will Run

This session is fully described in the training notes "TC110 – Introduction to the PDS Compact 500.ppt".

This training will run as three Knowledge Sessions.

Module 1

Explanation – Introduction to the PDS Compact 500. Identification of the circuit board and means of low level interrogation.

Activity – Participant interrogation or units as the various aspects of the board are discussed. Participants will be encouraged to work with the units while the discussion takes place.

Revise

Module 2

Explanation – Use of DNPCConfig – Serck Windows software for interrogation and setup of the PDS Compact 500.

Activity – Discussion of the software. Applicants will be able to make use of the software to test information received in the training material.

Revise

Module 3

Explanation – IsaGRAF – Download and monitoring of IsaGRAF applications.

Activity – Discussion and download of an application supplied by the trainer. Applicants will use IsaGRAF as it is discussed to raise further points for discussion and to enhance explanations given.

Revise

2.5 Motivation for the Participants

This session will enable the participants to confidently identify the status of PDS Compact 500s. They will be able to interrogate and fault find a unit and reload it if necessary.

2.6 Prior Experience

Determine who has had prior experience.

Do they want to proceed directly to the test?

Would they be willing to demonstrate what they know as it is addressed in the course?

3 Test

The test for this session is

Demonstrate the correct use of the Station Address Switches to allow interrogation and calibration of the unit.

Use DNPConfig to determine the status of the unit and change internal states of the unit.

Use IsaGRAF to recover and download an application. Monitor the application.

Note: test must be

- Valid to the material covered
- Quick to set and take
- Reliable – clear answers
- Cover a good sample of the course
- Discriminate between attendees who now know the material and those who don't.

4 Summary

Help is available from the trainers at the Process Control Training Centre or from others who have done this course.

It is suggested that the participants first talk amongst themselves, then the nearest DC5/DC6, then the PCTC trainers and finally the Technical Consultant Process Control as they begin to apply the knowledge gained today.

Participants are welcome to book an appointment at the PCTC to refresh their skills and clarify or discuss any issues arising from field experiences. The PCTC is available at any time when it is not being used for a training session.