
Control Technology

Application Note

This document describes how to configure a Paradigm operator interface terminal to allow communications with a Control Technology Automation Controller. The communications protocol supports access to numeric registers, flags, and control actions. Please read this document carefully before attempting to configure communications with these devices.

Introduction

The EDICT-97 configuration software has been designed to allow the user to enter a Parameter mnemonic and number in a manner that should be familiar to a user of a Control Technology Automation Controller. The driver allows the exchange of data with the Controller.

Accessing Data

The Control Technology Automation Controller communications protocol allows access to a number of parameters over a serial communications link. The driver described here supports a subset of these parameters and these are given in the table below.

Parameter	Mnemonic	Range	Data Type	Access
Numeric Register	REG	00001..65535	32-bit Signed	Read/Write
Flag	FLAG	01..32	Individual Byte	Read/Write
Start Controller	RUN	--	--	Write
Stop Controller	STOP	--	--	Write
Reset Controller	RST	--	--	Write

Writing 0 to a Flag will clear the flag, while writing 255 (0xFF) will set the flag. Writing any other number to a flag will provide indeterminate results.

Knowledge of Unit Operation Is Assumed

In all cases, the simple principle of 'pass-through' is maintained: there is no attempt to validate a value in terms of the end use of the unit: both familiarity with the control functions and knowledge of system operation are assumed.

Communications

Communications with the Control Technology Automation Controller is via an RS-232, point to point link, with default serial communications format of baud rate 9600, 8 data bits, No parity, and 1 stop bit.

The connections details are described in the table below.

Paradigm unit (RS 232 port)	Control Technology Automation Controller (RS232 Modular Jack)
Pin 1 (Tx)	Pin 5 (RxD)
Pin 2 (Rx)	Pin 2 (TxD)
Pin 3 (RTS)	
Pin 4 (CTS)	
Pin 5 (0v)	Pin 3 (GND)

In addition a link must be fitted between Pin 3 (RTS) and Pin 4 (CTS) on the Paradigm unit.