Maxiflex P4D Dual Redundant CPU

Maxiflex Programmable Logic Controller Dual Redundant CPU Module

M1272A

- Dual-Redundant CPU for high availability
- All five IEC61131 Programming Languages
- On-line monitoring and debugging
- On-line program modification
- Remote programming and configuration
- Expand up to 105 I/O Modules (6,720 I/O max)
- Time-stamping of events down to 1ms
- Built in Conet networking

Overview

The MAXIFLEX P4 CPU's are designed for applications requiring PLC programming, offering industry standard IEC61131 programming capabilities combined with powerful industrial network communications features.

The P4 series replaces the P3 series with significant enhancements in performance and communications options.

Data Interchange Table Architecture

Like most Omniflex products, all local real-time data and configuration settings are accessible through a Data Interchange Table (DIT) that is accessible through all active communications ports. In the P4, the DIT has been increased to 1,000,000 16-bit registers providing unprecedented scale for systems using this CPU.

Flexible Inter-networking Capability

Following standard networking standards, this CPU includes a powerful inter-network routing capability for retrieving data from the corners of the plant or very large, geographically spread-out installations. This capability allows many dissimilar network types to be linked to create a seamless factory intranet, without the need to lay special network cabling.

Automatic I/O Scanning

The P4 CPU automatically identifies the presence of I/O modules and performs I/O scanning of these modules, making this data available in the Data Interchange Table without needing to write a single line of code. This makes creating data acquisition system easy and reliable.

More Connectivity

The P4 CPU has an unprecedented range of communications options built into the CPU including a range of wireless options, Conet networking and 4G/NB-IOT interfacing making accessing data remotely even easier.

Applications

- Remote I/O for SCADA. Use with CONET routing via Ethernet to retrieve data from distances up to 10km away over existing cables.
- I/O expansion into existing DCS installations through the network gateways.
- Integrate third party devices using programmable network interfaces
- High Density Analogue Data Acquisition systems such as boiler skin temperature monitoring with direct sensor connections.
- Distributed Sequence of Events Handling with Time-stamping to 1 millisecond at source.
- Accomplish complex I/O tasks using the wide range of specialist I/O modules

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REMOTE MONITORING SPECIALISTS

Feature Overview

Autoscan

The P4D CPU is equipped with "Autoscan", a feature that automatically scans all the I/O Modules and I/O connected to the CPU. The power of this feature is seen in Telemetry applications and Data Acquisition where it can eliminate the need for application programs to be written just to scan I/O.

Using "Autoscan", the CPU recognises and scans all I/O modules installed on the MAXIFLEX base, sorts the data into convenient tables according to type of I/O (Analogue or Digital; Input or Output) and copies this data to/from the CPU's Data Interchange Table (DIT) for easy access from any of the network ports.

SCADA, DCS or other devices can read/write the Data Interchange table in efficient blocks without PLC programming required.

I/O Module Configuration Management

I/O Module Configuration Management is included in all P4 CPU's. This function is responsible for continuously monitoring all slots of the MAXIFLEX I/O base. A copy of all intelligent I/O module setup data is kept in the CPU. If any I/O modules are changed, the CPU will automatically update the new module with its configuration. This allows I/O modules to be changed without the need to reconfigure them. (e.g. a T/C module with different TC types and set points selected.)

(Network Interface Modules installed on the MAXIFLEX base are equipped with their own configuration storage and are not updated from the CPU when replaced.

I/O Module Manifest Monitoring

This function is responsible for continuously monitoring all slots of the MAXIFLEX I/O base, keeping track of the currently installed module types. This list is compared against the required list (the I/O Module List) configured by the user. Any change in module positions will be detected. This I/O status is displayed on the front of the CPU and is available as an alarm in the Data Interchange Table. This status can be monitored through any of the network ports

Data Interchange Table Service

The Data Interchange Table (DIT) in the CPU is the focal point for data storage in the CPU. Any exchange of data between functions in the CPU and with the outside world takes place through the DIT.

The DIT is an array of 16 bit registers accessible from any function or communications port in the system for interchanging data.

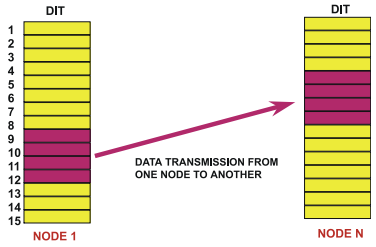
The total addressable range of 1,000,000 registers allows the Data Interchange Tables in any module in the system, including Network Interface Modules, to also be directly addressable through any of the CPU ports.

Subscription Service

Central to many applications involving communications across networks is the need to replicate data between nodes on the network. The subscription service provides an easy to use but extremely powerful data replication facility between DIT's in the system, whether they are local or remote.

This service provides change-of-state detection and error reporting for optimum performance and reliability.

Examples include SCADA systems acquiring data from remote telemetry units in the field to a central point; or a point-to-point telemetry application, where inputs are transmitted from one location to outputs at another location.



In all these cases, the traditional method is for a controlling master node to poll the slave nodes regularly for data in case something has changed. This crude method is an inefficient use of the limited network bandwidth and is inherently slow in typical update times. The MAXIFLEX P4 CPU provides a superior mechanism to accomplish this commonly used function, through its Subscription Service.

The receiving node is configured to request the data from the source node, by setting up a subscription, very much like you would subscribe to a magazine through your newsagent. A subscription can be a single register or a block of up to 120 registers which you wish to receive on any change of state and/or at a regular time interval.

Each P4 CPU can be configured to subscribe to 128 data blocks as receiver and be requested for up to 128 data blocks as transmitter.

Queue Service

The Queue Service provides a buffer between processes that produce real time events and processes that consume those events in non-real time. A typical example is a SCADA system collecting time stamped event information in non-real time from a Maxiflex System configured as a 1ms Sequence of Events monitor.

SD Card Logging and Storage

The P4 CPU's have an in built microSD Card slot. This allows a range of storage and logging functions to be implemented.

CONET Technology

The P4 CPU's are all equipped with the field proven CONET industrial intranet technology.

CONET is a peer-to-peer internetworking technology designed from the ground up for noisy industrial plant environments.

CONET can run on a number of physical media including existing plant cabling, conventional copper twisted pair, over radio links, over fibre-optic links, over virtual serial links, and over Ethernet.

CONET is available for the following media:

- ***Conet/c*** can be used over existing copper cables including twisted pair and industrial instrumentation cabling. This is a full-function token-passing peer-to-peer network technology.
- ***Conet/s*** is used over point-to-point full-duplex serial links, including fibre-optic links or through modems for wide area applications. This full duplex protocol provides full peer-to-peer communications capability to allow multiple local networks systems to be interconnected over a wide area into a single intranet. This efficient protocol retains the full capability of the CONET inter-networking technology including remote programming, event message handling and the ability to run data subscriptions in both directions simultaneously.
- ***Conet/e*** is used over TCP/IP Ethernet networks. This protocol encapsulates all the standard CONET message types in packets for transmission over Ethernet.
- ***Conet/r*** is used over radio networks. A choice of licence-free radio frequency bands and channels allows large radio networks to be configured. Radio Repeating and redundant path configuration enhances the internetworking capability.
- ***Conet/i*** is used over the Internet (e.g. GSM). This protocol encapsulates all the standard CONET message types in packets for transmission over the internet.

CONET Inter-Network Routing

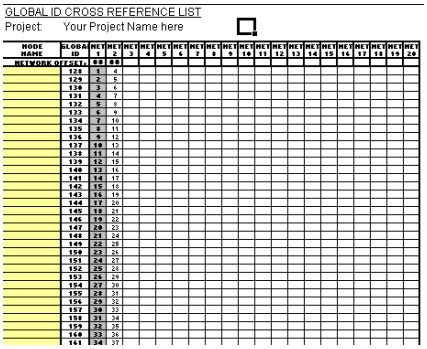
Many systems are constructed of multiple networks to overcome the difficulties of topology or communication protocol conversion. The CONET Network Routing service provides a means to seamlessly interconnect these networks into an integrated "intranet" so that any node in the system may be globally addressed from any other without regard for its physical location or network segment.

The CONET message protocol allows for remote programming, time-stamped at source event messaging, data replication using the subscription service, as well as the more conventional data polling access methods.

CONET Router Wizard

The CONET Router Wizard is a user-friendly spreadsheet based software utility, used to calculate router table register entries for all router Nodes in a MAXIFLEX intranet system.

Once configured, global addressing can then be used on the MAXIFLEX Intranet to communicate with any mode in the system, even if on different network segments.


GLOBAL ID CROSS REFERENCE LIST
Project: Your Project Name here

NODE NAME	GLOBAL ID	NET 1	NET 2	NET 3	NET 4	NET 5	NET 6	NET 7	NET 8	NET 9	NET 10	NET 11	NET 12	NET 13	NET 14	NET 15	NET 16	NET 17	NET 18	NET 19	NET 20
NETWORK OFFSETS		88	88																		
	128	1	4																		
	129	2	5																		
	130	3	6																		
	131	4	7																		
	132	5	8																		
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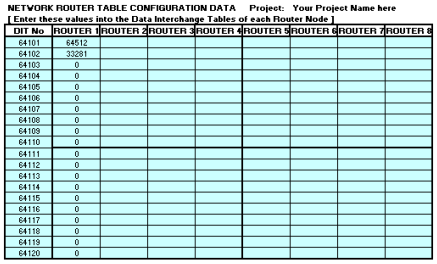
	156	29	32																		
	157	30	33																		
	158	31	34																		
	159	32	38																		
	160	33	36																		
	161	34	37																		

Router Wizard System Interconnection Table


NETWORK ROUTER TABLE CONFIGURATION DATA Project: Your Project Name here
[Enter these values into the Data Interchange Tables of each Router Node]

DIT No	ROUTER 1	ROUTER 2	ROUTER 3	ROUTER 4	ROUTER 5	ROUTER 6	ROUTER 7	ROUTER 8
64101	84512							
64102	33281							
64103	0							
64104	0							
64105	0							
64106	0							
64107	0							
64108	0							
64109	0							
64110	0							
64111	0							
64112	0							
64113	0							
64114	0							
64115	0							
64116	0							
64117	0							
64118	0							
64119	0							
64120	0							

Calculated Router Table Register Entries

Protocol Selection

The P4D CPU's comes equipped with several built-in communications protocols that can be configured on most communications ports of the CPU:

Modbus Master can be selected for easy interconnection of the P4 CPU to third party systems equipped with a Modbus Slave interface.

Modbus Slave can be selected for easy interconnection of MAXIFLEX I/O to third party equipment such as HMI's, Distributed Control Systems, SCADA software, or Master Programmable Logic Controllers.

Modbus/TCP Master and Slave can be used on the Ethernet ports simultaneously. This protocol option conforms to Class 0 of the Modbus/TCP conformance classification.

Conet protocols can be selected to interconnect MAXIFLEX systems over wide areas using any of the communications ports. This provides full peer-to-peer communications capability to allow multiple local networked systems to be interconnected over a wide area into a single intranet.

Custom Port Protocol Definition. The P4 CPU supports custom protocols. In order to use this advanced feature of the P4 CPU, download the custom protocol driver to P4 CPU and select the "User" Protocol type. Consult the factory for available protocols.

Remote Programming Service

Every P4 CPU is equipped with a dedicated USB programming port. Using the network routing function and convenient table configuration, it is possible to configure/program every node in a MAXIFLEX intranet remotely from a single programming port. This function significantly reduces system downtime and improves maintenance efficiency and therefore life-cycle costs. Engineering access to the Network is simple and can be made at any point on the network enabling nodes to be reprogrammed remotely via any of the P4 CPU ports.

IEC61131 Programming Support

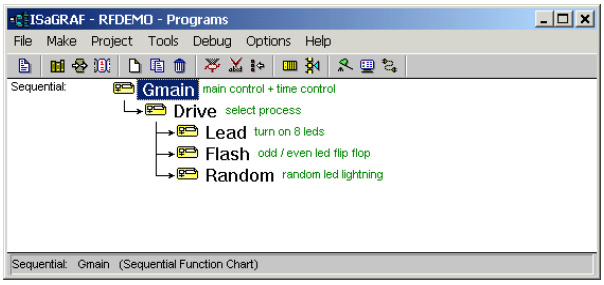
Full Windows based graphical programming support is available for the P4 CPU's using the available "Omniflex IsaGRAF Application Workbench".

The Application Workbench is a complete programming environment used to develop complex control algorithms. It fully supports six automation languages: the five IEC 61131-3 languages plus Flow Chart. This flexibility enables developers to choose the language that best suits their knowledge, style and application. The Workbench provides tools for editing, debugging, code generation, documentation, library management, archiving, on-line monitoring, off-line simulation and on-line changes.

The Application Workbench uses the IEC61131 industrial standard PLC programming methodology for designing powerful applications without requiring the programmer to know complex, high-level computer languages. Designed to make it easier and faster to write applications, the Workbench imposes a simple but structured methodology and catches syntactic errors during program writing. The result is a much more robust application code in the shortest possible development time.

The programming languages supported by the P4 CPU's are:

- SFC – Sequential Function Charts
- FC – Flow Charting
- FBD –Function Blocks
- LD – Graphical Ladder Diagram
- ST – Structured Text
- IL – Instruction List



Program Structure on the Application Workbench

Program Debugging

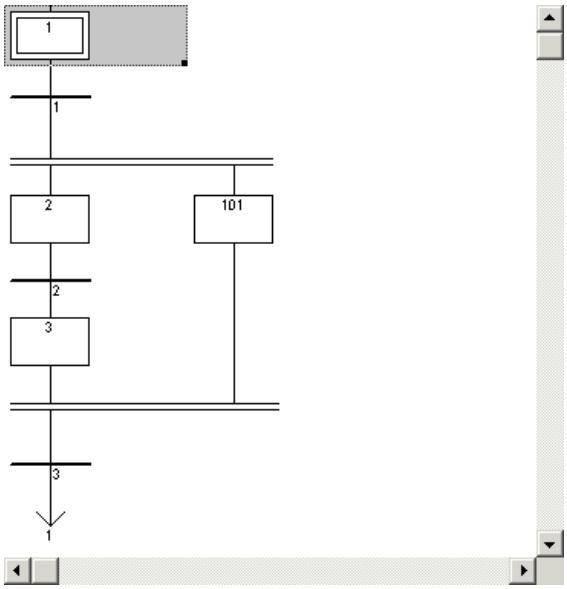
Using the Workbench Debugger, it is possible to lock I/O while the debugger is connected, and to force an I/O point to a known state.

Defining an I/O module as "virtual" disconnects the processing of the physical I/O channels. In this mode, inputs/outputs are not updated, and it is possible to use the Debugger to modify the input values. The virtual attribute is a static feature and is stored when the application is stopped and restarted.

While any I/O is under debugger control, the I/O LED flashes to indicate this condition.

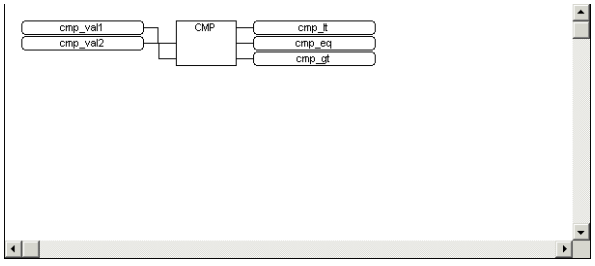
IEC61131 Programming Languages

SEQUENCE FUNCTION CHART (SFC)



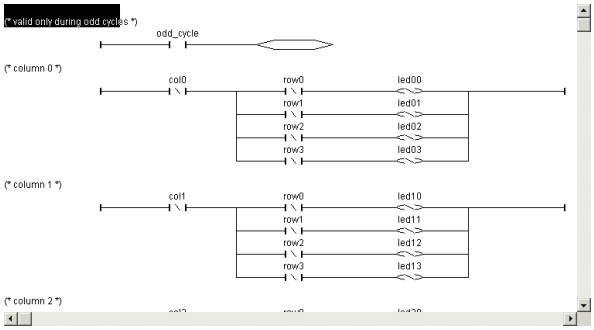
Sequential Function Chart (SFC), the core language of the IEC 61131-3 standard, divides the process cycle into a number of well-defined steps, separated by transitions. The other languages are used to describe the actions performed within the steps and the logical conditions for the transitions. Parallel processes can easily be described using SFC

FUNCTION BLOCK DIAGRAM (FB)



Function Block Diagram (FBD) is a graphical language that allows the user to build complex procedures by taking existing function blocks from the library and wiring them together on screen.

LADDER DIAGRAM



The Ladder Diagram (LD) is one of the most familiar methods of representing logical equations and simple actions, particularly in the United States. Contacts represent input arguments and coils represent output results. The Workbench's Quick LD editor provides the best compromise between high-level graphic capabilities and easy-to-use keyboard driven programming. LD and FBD programming can be mixed in the same chart.

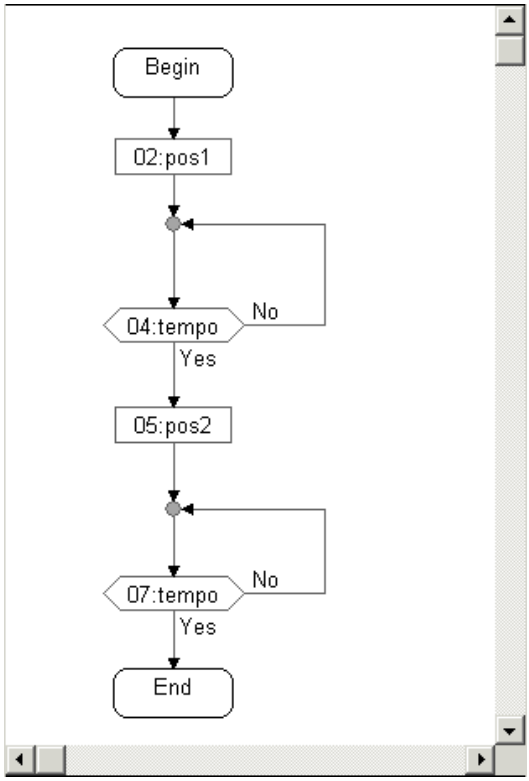
STRUCTURED TEXT

Structured Text (ST) is a high level structured language with a syntax similar to Pascal but more intuitive to the automation engineer. This language is primarily used to implement complex procedures that cannot be easily expressed with graphical languages (e.g. IF / THEN / ELSE, FOR, WHILE...). The ST editor guides the user to the correct syntax and punctuation. To further facilitate and speed development, highly useful validation and programmer assistance facilities are included.

INSTRUCTION LIST

The Application Workbench also includes Instruction List (IL), a low-level Boolean language similar to the simple textual PLC languages that are programmed at the register level.

FLOW CHART



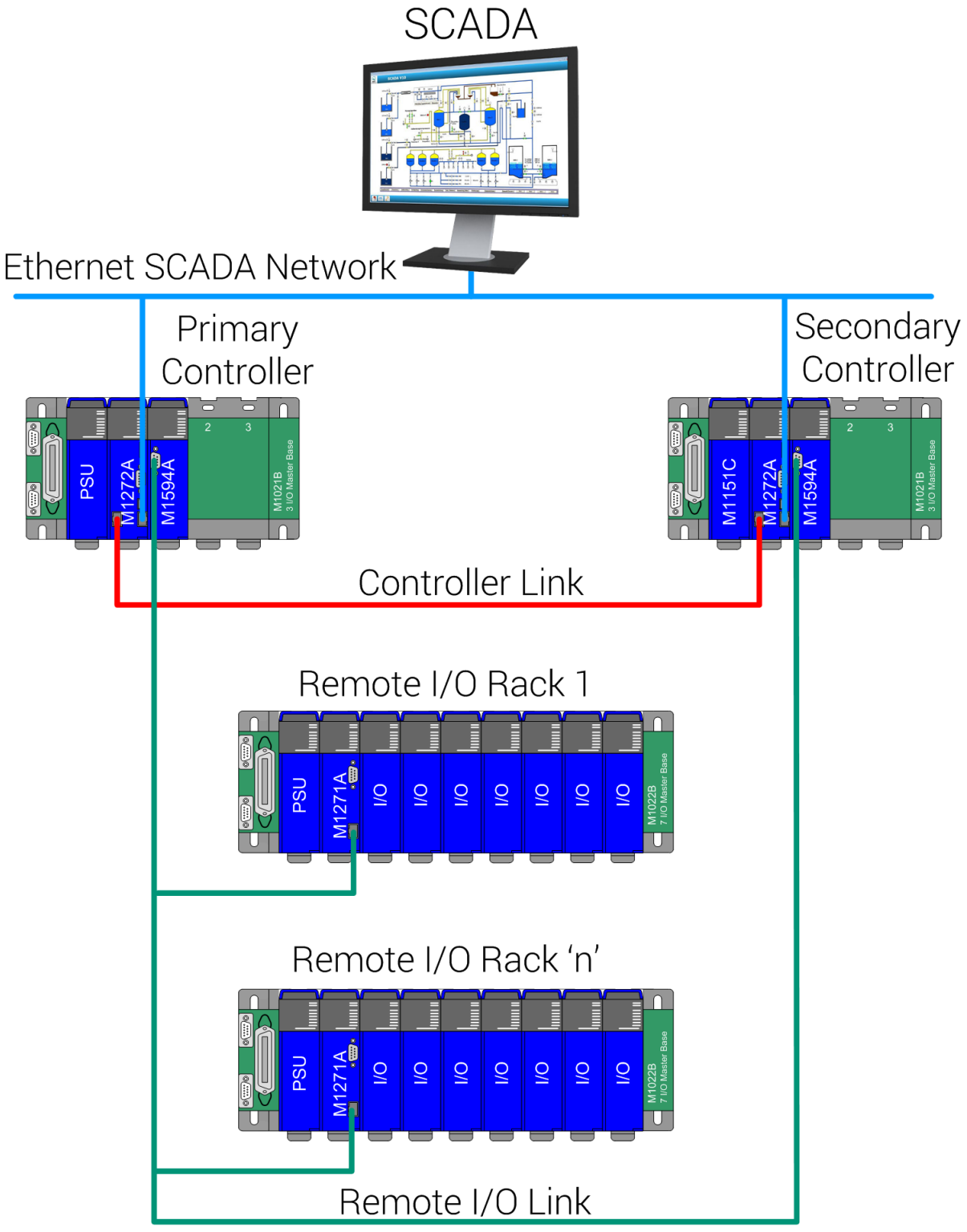
Recognising that virtually every engineer graduating from college today has programmed in Flow Chart, the Workbench fully supports graphical Flow Chart programming. The Flow Chart is an easy to read decision diagram where actions are organised in a graphic flow. Binary decisions are used to control the flow. The Flow Chart Editor has full support for connectors and sub-programs. Actions and tests can be programmed in LD, ST or IL. The graphical editor allows each symbol to be re-sized independently, and automatically arranges the chart during development. The Level 2 code is displayed in a resizable editor window.

FUNCTION BLOCKS

In addition to the IEC 61131-3 languages and Flow Chart, the ISaGRAF Application Workbench includes a library with more than 60 ready-to-use blocks. Users can enlarge this library by writing functions and function blocks in LD/FBD/ST/IL languages or "C". The enhanced Library Manager is completed with import/export commands between the library and applications, so that new developed functions can easily be stored in library and are directly ready for future applications.

Layout

Dual Redundant Configuration



Redundant System Configuration

A high availability system is constructed by combining two identical P4D CPU's, each with their own Power Supply and Base, to create Primary and Secondary Controllers.

These two Controllers are connected to common Remote I/O Bases, and (optionally) to a supervisory (SCADA) system.

Both Controllers consume the common input data from the remote I/O Bases, but only the active Controller controls the outputs, and communicates with the supervisory computer.

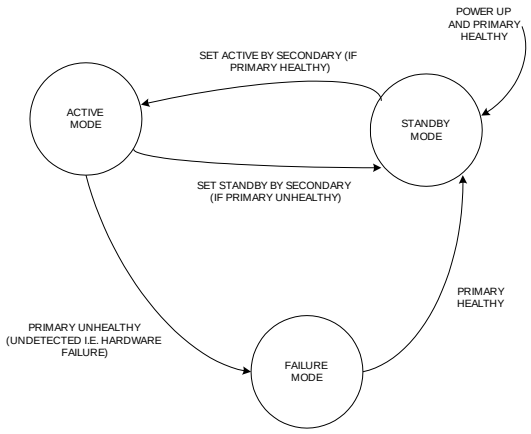
The Primary and Secondary Controllers in a hot standby system are synchronised every program scan, so that should the primary Controller fail, the secondary Controller can automatically continue program operation from the last Primary Controller scan.

The Primary and Secondary Controllers stay synchronised through a separate communications link between the two Controllers.

The monitoring, and switch-over between Primary and Secondary Controllers occurs transparently to the SCADA computer.

The Secondary controller can either run a program identical to the Primary Controller, or it can run an independent program designed to bring the process to a safe state.

The following state diagram illustrates the redundant hot standby operation:



Communication Functions by Model

All P4D CPU's have the following communications ports:

Port name	Description
NET1	Ethernet UTP (RJ45) 10/100MHz
SYNC	Inter-processor Synchronisation Link
S1	Serial Port RS232/485
S2	Serial Port RS232 Only
PROG	USB-C Programming Port

The P4D CPU can be supplied with the following optional communications port:

Model Name	Description
P4DG4	GSM 4G port
P4DC1	Conet/c twisted pair network port
P4DR1	2.4GHz wireless network port
P4DR2	868MHz wireless network port (9dBm transmitter)
P4DR5	915MHz wireless network port
P4DR6	868MHz wireless network port (27dBm transmitter)
P4DR7	464MHz wireless network port
P4DR8	433MHz wireless network port
P4DR9	169MHz wireless network port

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M1272A

Specifications

General

Processors

Quantity	2
Main Processor	32bit ARM at 168MHz
IO Processor	32bit ARM at 70MHz

User Program Memory

User Program	512kBytes
User Variables	128kBytes
Data Interch. Table	1,000,000 x 16 bit registers
Event Queue Size	1000 events

Program Execution Times

Small	20ms
Medium	20-200ms
Large	>200ms

Front Panel indicators

CPU OK (Green)	On = CPU Healthy Flashing or Off = CPU faulty
I/O OK (Green)	On = I/O OK Flashing = I/O does not match configuration or is in debug control Off = I/O configuration not set
RUN (Green)	On = Application Program Running Flashing = On Standby Off = No application program or application program not running
Serial Tx (Red)	On = serial data is being sent. Off = no data waiting to be sent.
Serial Rx (Amber)	On = serial data is being received. Off = No data being received.
Network Tx (Red) (P4DC CPU Only)	Flashes for each CONET network data message received (to the correct address.)
Network Rx (Amber) (P4DC CPU Only)	Flashes for each CONET network data message sent.
Net Token (Green) (Conet CPU Only)	Flashes at a rate proportional to the speed that the token is passed.
Network Fault (P4DC CPU Only)	All three Network LED's flash if the Node Address is incorrectly set.
SD	Green Reading, Red Writing Off – Safe to remove card

SD Card

Type	microSD memory Card (11mm x 15mm x 1mm)
Storage Capacity	2GB to 128GB supported
Card Format	FAT32 (PC Compatible)
Functions	Logging from PLC program

Real Time Clock

Accuracy	1 minute per month
Resolution	10ms
Backup	CR1220 Coin Cell
Backup Time	5 years (typical)

Environment

Operating Temp.	-25°C to +60°C (-13°F to +140°F)
Storage Temp.	-40°C to +70°C (-40°F to +158°F)
Humidity	95% max. at 40°C (104°F) non-condensing.
Protection	Tropicalised by conformal coating

Compliance to Standards

Safety	EN 60950:2000
Emissions	EN 55011 Group I, Class A
Immunity – ESD	IEC 61000-4-2:2001, level 3
Immunity – RF Fields	IEC 61000-4-3:2003, level 3
Immunity – Fast Transients	IEC 61000-4-4:2004 1 kV – input/output lines

Logic Power Consumption

From Logic Supply	400mA from 5Vdc max.
Excluding Packaging	390g (13.8oz)
Including Packaging	480g (16.9oz)

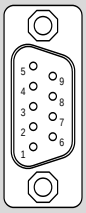
Communications Ports (all models)

Programming Port

Type	USB-C
Capability	Allows full system programming and data access through this port.

Serial Port S1

Type	RS232/RS485
Protocols	Modbus Master/Slave (ASCII/RTU) Conet/s
Baud Rate	300-115,200 baud
Max. Cable Length	15m (50ft) on RS232C 1200m (4000ft) on RS485
Connector	9 pin sub-miniature DB9 (male)



Pin	Communication Standard	
	RS232	RS485
1	Do not connect	Rx Data + (In)
2	Rx Data (In)	Rx Data – (In)
3	Tx Data (Out)	Do not connect
4	Do not connect	Tx Data+ (Out)
5	Ground	Ground
6	Do not connect	3.3V
7	RTS (Out)	Do not connect
8	CTS (In)	Do not connect
9	Do not connect	Tx Data – (Out)

Serial Port S2

Type	RS232C
Protocols	Modbus Master/Slave (ASCII/RTU) Conet/s
Baud Rate	300-115,200 baud
Max. Cable Length	15m
Connector	RJ11 Jack (FCC-68)

Signal Name	FCC-68 Pin No	(connect to DB-9)
Rx Data from P3	4	2
Tx Data to P3	1	3
Ground	2	5
All other pins are reserved and must not be connected.		

Ethernet (Net1)

Type	10/100 UTP Ethernet
Protocol Support	Modbus/TCP Class 0 ISaGRAF remote programming Conet/e network routing. HTTP Client for Data2Desktop
IP Addressing	Static IPV4 (user settable)

Optional Network Ports

GSM/4G Network (Model P4DG4)

Type	GSM Mobile Phone Network
GSM Bands	LTE Cat 1, UMTS/HSPA+ and GSM/GPRS/EDGE coverage (See order codes to select region)
SIM Card	Nano SIM
Antenna	Remote mounted antenna via SMA connector

Conet/c Twisted Pair Network (Model P4DC1)

Type	Token passing peer-to-peer industrial LAN
Baud Rates	Standard: 62.5 kBaud Slow: 7800 Baud
Max. Cable Length	10km
No. of nodes	126 max on one Conet network
Cable Type	Operates on most cable types. Consult Omniflex for more details.

2.4GHz Short Range Wireless Network (Model P4DR1)

Radio Band	ISM: 2400-2483MHz
Modulation	GFSK and MSK
No. of Channels	83
RF Data Rate	Selectable 1.2 to 100 kbits/sec
Output Power	Selectable -10dBm to +18dBm
Receiver Sensitivity	-110dBm at 1.2kBits/sec
Typical Range	250m LoS (Line-of-Sight)
Region	EU/CE/ZA

868MHz Short Range Wireless Network (Model P4DR2)

Radio Band	ISM: 868.05-869.95MHz
Modulation	FSK
No. of Channels	16
RF Data Rate	Selectable 1.2 to 100 kb/s
Output Power	Selectable -20dBm to +9dBm
Receiver Sensitivity	-108dBm at 1.2kb/s -91dBm at 100kb/s
Typical Range	1km Line-of-Sight
Region	Worldwide
Region	EU/CE/ZA

915MHz Long Range Wireless Network (Model P4DR5)

Radio Band	ISM: 915-928MHz
Modulation	Freq. Hopping Spread Spectrum

No. of Channels	24
RF Data Rate	Selectable 10, 110, 250 kb/s
Output Power	Selectable 21, 27, 30dBm
Receiver Sensitivity	-113dBm at 10kb/s -106dBm at 110kb/s
	-103dBm at 250kb/s
Typical Range	Urban: 18km (11 miles) LoS Rural: 105km (65 miles) LoS
Region	USA/Australia

868MHz Long Range Wireless Network (Model P4DR6)

Radio Band	ISM: 868-870MHz
Modulation	2GFSK/4GFSK
No. of Channels	84
RF Data Rate	Selectable 1.2 to 100 kb/s
Output Power	Selectable +14dBm to +27dBm
Receiver Sensitivity	-118dBm at 1.2kBits/sec -101dBm at 100kBits/sec
Typical Range	20km LoS
Region	EU/CE/ZA
Region	USA/Australia

464MHz Long Range Wireless Network (Model P4DR7)

Radio Band	ISM: 463.975-464.375MHz
Modulation	2GFSK/4GFSK
No. of Channels	5
RF Data Rate	Selectable 1.2 to 100 kb/s
Output Power	Selectable +14dBm to +27dBm
Receiver Sensitivity	-118dBm at 1.2kBits/sec -101dBm at 100kBits/sec
Typical Range	20km LoS
Region	UK/IRL/ZA

433MHz Long Range Wireless Network (Model P4DR8)

Radio Band	ISM: 433-434MHz
Modulation	2GFSK/4GFSK
No. of Channels	Varies between regions
RF Data Rate	Selectable 1.2 to 100 kb/s
Output Power	Selectable +14dBm to +27dBm
Receiver Sensitivity	-118dBm at 1.2kBits/sec
	-101dBm at 100kBits/sec
Typical Range	20km LoS
Region	Nordic/EU[1]/CE[1] 1. Maximum 10dBm
Region	UK/IRL/ZA

169MHz Long Range Wireless Network (Model P4DR9)

Radio Band	ISM: 169MHz
Modulation	2GFSK/4GFSK
No. of Channels	10
RF Data Rate	Selectable 1.2 to 100 kb/s
Output Power	Selectable +14dBm to +27dBm
Receiver Sensitivity	-118dBm at 1.2kBits/sec -101dBm at 100kBits/sec
Typical Range	20km LoS
Region	EU/CE
Region	UK/IRL/ZA

Ordering Information

Order Code	Product Name	Description
M1272A-0	Maxiflex P4D	Maxiflex P4D Dual Redundant CPU
M1272A-141	Maxiflex P4DG4	Maxiflex P4DG4 Dual Redundant CPU with 4G/LTE (Region EU/ZA)
M1272A-142	Maxiflex P4DG4	Maxiflex P4DG4 Dual Redundant CPU with 4G/LTE (Region AUS)
M1272A-143	Maxiflex P4DG4	Maxiflex P4DG4 Dual Redundant CPU with 4G/LTE (Region USA – AT&T, T-Mob etc.)
M1272A-144	Maxiflex P4DG4	Maxiflex P4DG4 Dual Redundant CPU with 4G/LTE (Region USA - Verizon)
M1272A-201	Maxiflex P4DC1	Maxiflex P4DC1 Dual Redundant CPU with Conet/c
M1272A-301	Maxiflex P4DR1	Maxiflex P4DR1 Dual Redundant CPU with 2.4GHz Short Range Wireless
M1272A-302	Maxiflex P4DR2	Maxiflex P4DR2 Dual Redundant CPU with 868MHz Short Range Wireless
M1272A-305	Maxiflex P4DR5	Maxiflex P4DR5 Dual Redundant CPU with 915MHz Long Range Wireless
M1272A-306	Maxiflex P4DR6	Maxiflex P4DR6 Dual Redundant CPU with 868MHz Long Range Wireless
M1272A-307	Maxiflex P4DR7	Maxiflex P4DR7 Dual Redundant CPU with 464MHz Long Range Wireless
M1272A-308	Maxiflex P4DR8	Maxiflex P4DR8 Dual Redundant CPU with 433MHz Long Range Wireless
M1272A-309	Maxiflex P4DR9	Maxiflex P4DR9 Dual Redundant CPU with 169MHz Long Range Wireless