

Distributed Control System **ABSTRACT** system is no longer

The Design and Implementation of a Distributed but
rather Control System Using UDC 3000 Controllers as in
reliability of (Single-Input Single-Output) of the system
software and a Host Computer

This project aims to develop a Distributed Control
System by using Dennis Christopher Sinanan expensive field

devices and common place microprocessor based low level

The recent development of inexpensive
microprocessors has brought about an explosion in the use
of electronics to control processes that would have
seemed unlikely candidates only a decade ago.

Microprocessors have migrated so close to the plant
that they are now located at the sensing or actuating
point. The result of this migration of processing power
closer to the processes has resulted in tremendous
benefits. Benefits, which results in improved process
control, include ease of maintenance, increased
reliability and greater flexibility in system
configuration. Processing power is no longer limited to
a single large processor, but rather to a multitude of
much smaller processors. The processors cooperate to
achieve the goals of a relatively large and complex
control strategy. Each processor is assigned a relatively
simple task and is interconnected to other processors in
a distributed architecture to form what is known as a

Distributed Control System. The system is no longer dependant on the reliability of a single processor, but rather on a host of processors. With this increase in reliability comes an increase in complexity of the system software.

This project aims to develop a Distributed Control System by using a field bus to connect inexpensive field devices and common place microprocessor based low level single loop controllers that normally operate in a stand alone environment. The system that is created, will be tested using a simulator and an established Distillation column model to determine response time and other system parameters...

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