

Fieldbus Systems

가

Telematic Systems

<

가 가

가

>

가

)

()

가

가

IEC 61131-3

),

(

()

(Structuring)

가
(Foundation Fieldbus,
PROFIBUS, Interbus, ControlNet,
LONWorks
.)

가
(IEC
61499(
)) IEC TC65/WG6
“ ”

가
IEC 61499 Part 1
Part 2

“ ”
IEC 61131-3 PLC
()
4-20mA

가
()
(,)
, (

,) 가 .
가 .
가

(XML) 가 가

()

가 . “ ”/ “ ”

Win-Win 가 가

가
가 GUI

가
가

가

가

가

. 가가

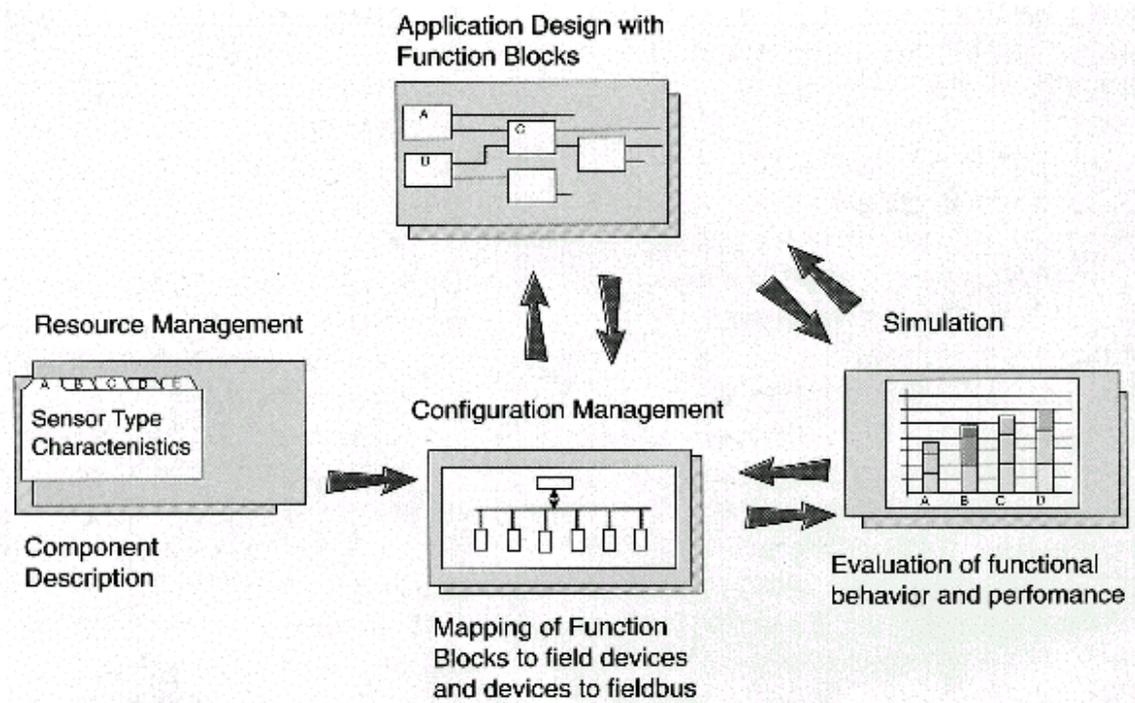
. 가

(1)

SDL(Specification and Description Language), UML(Unified Modeling Language) Petri Nets

가

가



1. ACORN Toolkit

..)

(

..)

ACORN(Advanced Control Network : BRITE-EURAM 95-1479)

가

ACORN Application Design Tool, Resource Manafement Tool, Configuration Management Tool, Simulation Tool

4가 .(1)

가

Application Design Tool

Resource Management Tool

가

Configuration Management Tool

Application Designdml

Configuration Management Tool

가 (

가

)

Simulation Tool

ACORN OPERA

가 . Animation Layout

ACORN

OPERA

OPERA (Operators Training Distributed Real-Time Simulation; ESPRIT 24950)

OPERA

가 (DiSOM) .(

2)

IT . OPERA

(,)

(Windows NT, FastEthernet, CORBA

PC) . OPERA

OPERA

가

Atomic DiSOM

(ADC)

가

ADC

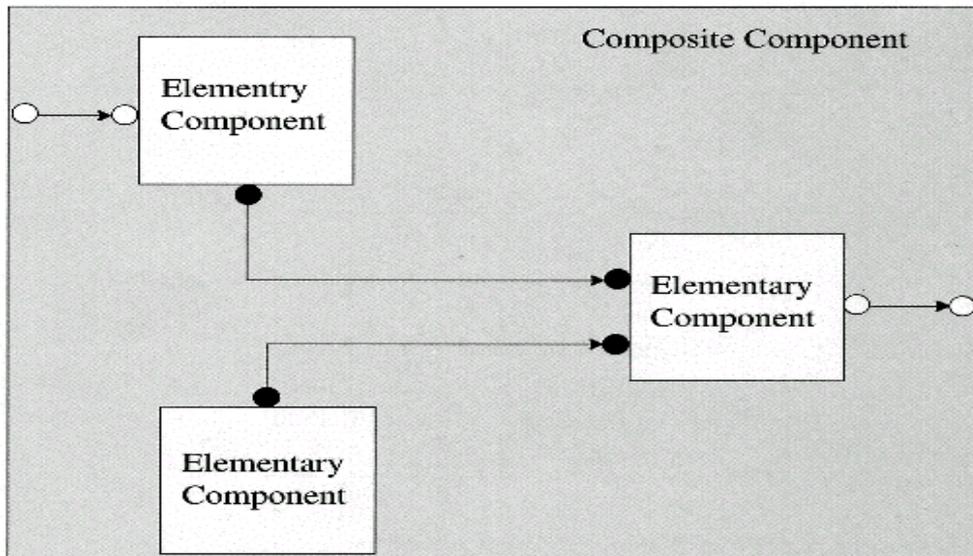
ADC

. ADC

(가

가 10m)

가



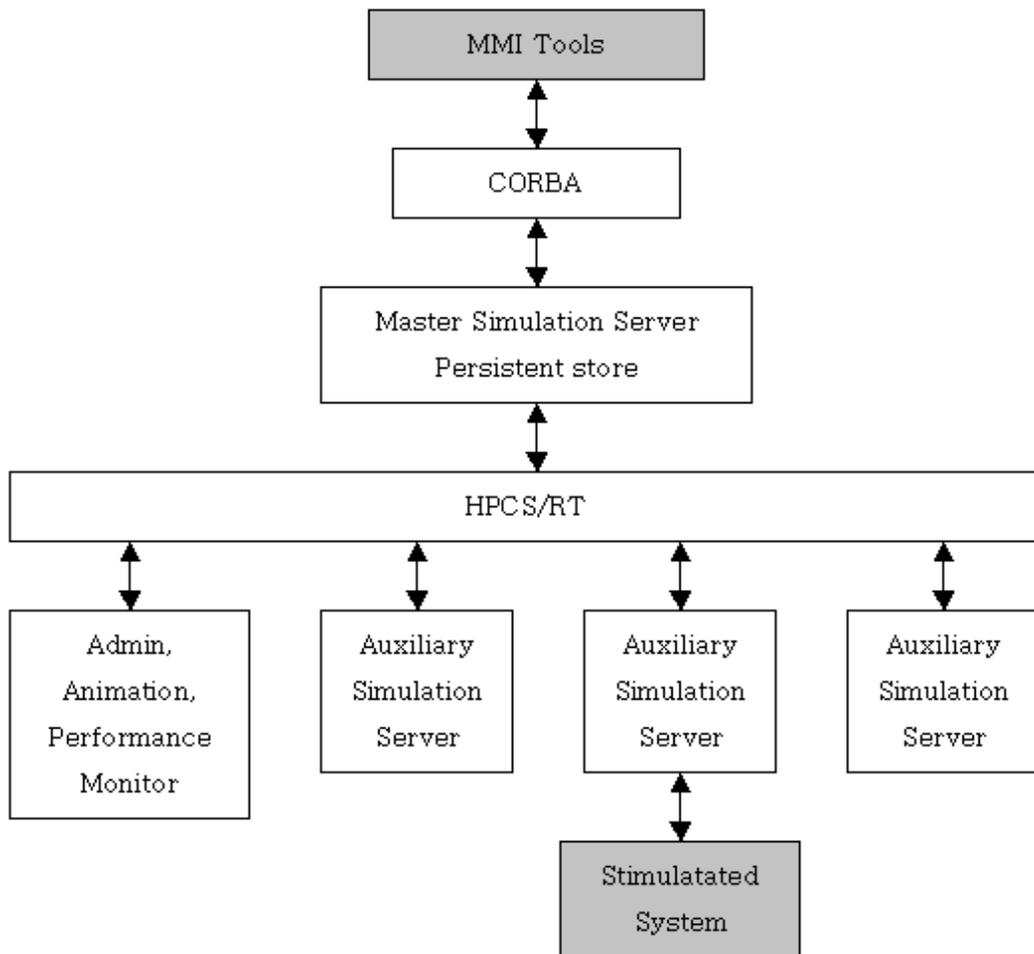
○ Ports of Composite Component

● Ports of Elementary Component

2. OPERA

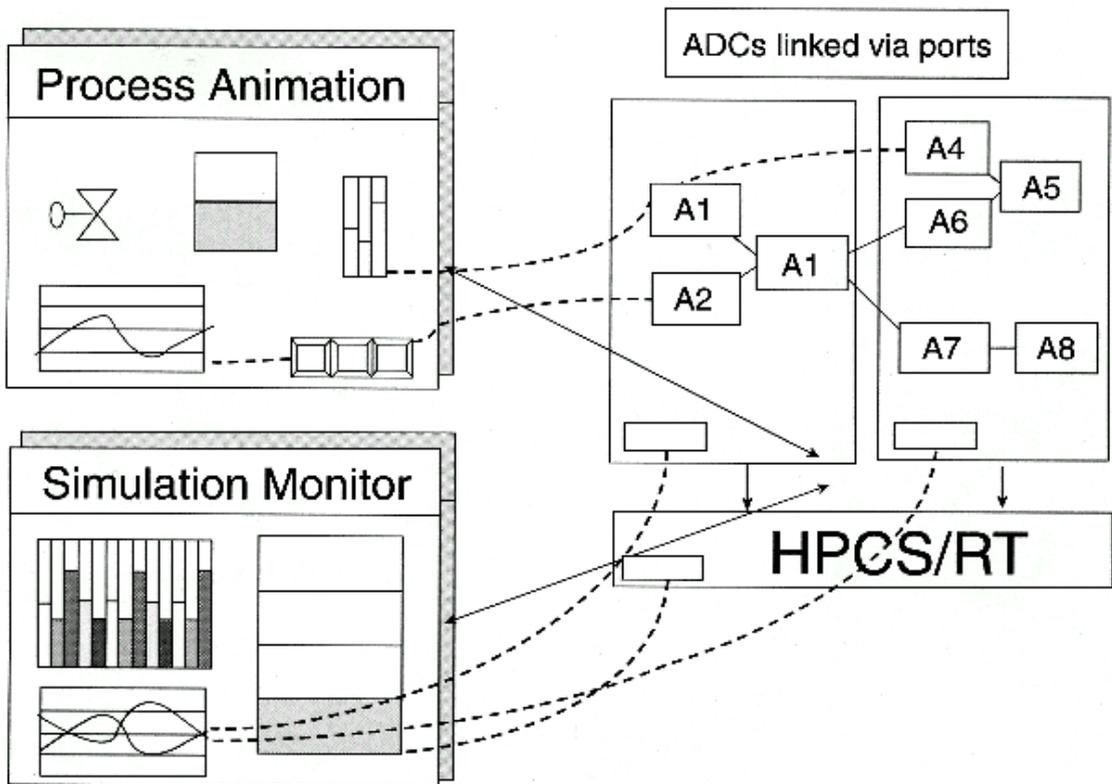
ADC / 가
 OPERA
 PC가 LAN
 ADC
 OPERA
 ADC DiSOM 가
 DiSOM Central Conductor
 ADC
 ADC 가
 가

(Time Synchronization)



3. OPERA

HPCS-RT



4. OPERA

HPCS-RT

).

(MMI)

. MMI

가

가

. OPERA

ADC

. (DiSOM

(4)

가 .)

CORBA

OPERA

LAN

.(3)

Windows/NT PC

(

(~200ms). OPERA API

OLE/COM

(10ms

)

LAN(100 Mbit/s Ethernet)

CORBA

CORBA

Legacy

o

DCS

가

(,)

CPU ,) 가

(4).