

# MAG\_NDA

## NETWORK DISTRIBUTED ARCHITECTURE

### DESCRIPTION

**MAGALI** is a standalone system providing all real time and post processing required functions.

**NDA** architecture is an extension designed to distribute the different MAGALI Real Time functions to several systems connected to a network. Thus, each system works synchronously on a dedicated task : acquisition / generation, monitoring, visualization, scheduling.



### KEY FEATURES

- Acquisition/generation of **numerous formats** : telemetry, bus MIL-STD-1553, ARINC-429, analogue, serial, Ethernet, discrete, counter, specific....
- **Balance of Acquisition/generation** loading on several processors.
- Monitoring and real time follow up by **several users**
- **Automatic sources synchronization**, whatever the format and the platform (Windows, Linux, UNIX, VxWorks, ...).
- **Test configuration** separately from a supervision station

### SPECIFICATIONS

#### SAM Acquisition

|                    |   |
|--------------------|---|
| Function           | Data Acquisition Station  |
| Type               | Industrial rack, desktop PC, compact.   |
| Operating system   | Windows, VxWorks, Linux, UNIX, VXI.   |
| Bus                | PCI, Compact PCI, PXI, VME.   |
| Input/output types | Analogue, digital, counters, frequency, telemetry PCM, IRIG, Daniel, CE83, CCSDS, bus 1553, ARINC 429, RS232 / RS422, GPIB / IEEE488, Ethernet, ... |

#### SPE Monitoring and follow-up

|                  |                                  |
|------------------|----------------------------------|
| Function         | Test Monitoring Station          |
| Type             | Desktop PC or rack, workstation. |
| Operating system | Windows , Linux, UNIX, VXI.      |

#### SVM Visualization

|                  |                                  |
|------------------|----------------------------------|
| Function         | Data Visualization Station       |
| Type             | Desktop PC or rack, workstation. |
| Operating system | Windows, Linux, UNIX, VXI.       |

#### SSQ Scheduler (optional)

|                    |  |
|--------------------|--|
| Function           | Synchronization of the system with external events or timer, with high accuracy. |
| Type               | Industrial rack, desktop PC, compact.  |
| Operating system   | VxWorks, real time operating systems.  |
| Bus                | PCI, Compact PCI, PXI, VME.  |
| Input/output types | Analog, digital, RS232 / RS422 bus, GPIB / IEEE488.                              |
| Communication      | MAGALI Interface Network.  |

## Acquisition Distributed on several stations

When the acquisition constraints are too heavy, streams to acquire can be distributed on several stations. The monitoring system thus, controls all the acquisition systems as a unique one.



## Visualization distributed on several stations

In this configuration, the acquisition station has all the functions of a standalone system : acquisition, monitoring, real-time visualization, post processing. The other stations only are real-time visualization stations.



## ORDERING INFORMATION

|            |  |
|------------|--|
| MAGALI/SPE | Magali software with Network supervision option          |
| MAG_SAM/RT | Run-time for front-end (black-box station)               |
| MAG_SVM/RT | MAGALI client software for Real-Time                     |
| MAG_SVM/PP | MAGALI client software for Real-Time and Post-Processing |

*Specifications are subject to change.  
Please, verify the latest specifications  
prior order.*

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