TOSHIBA

Leading Innovation

TOSDIC$_{TM}$-CIE DS

Plant Asset Management

Toshiba can provide a solution to managing the field devices scattered around your plant.

Typically your plant will have a variety of different field devices many of which may be intelligent with unique functionality peculiar to its original vendor. These all require specific tools, knowledge and individual management. Toshiba can unify the devices simplifying their management to a standardized tool and knowledge.

The FDT/DTM, Field Device Tool/Device Type Manager is a de facto standard which unifies communications, displays, configuration and operation of all field devices.

Toshiba supports Plant Asset Management conforming with FDT/DTM in the TOSDIC$_{TM}$-CIE DS/nv system and can deliver the collective management of your field devices from the plant control room.

TOSHIBA eco style

Toshiba Group contributes to the sustainable future of planet Earth.

■ System configuration

An FDT/DTM HART (*1) compatible system is illustrated below. The TOSDIC$_{TM}$ CIE-DS/nv control system has AI9H9B and AO9H9B HART compatible I/O modules installed. Toshiba can also provide communication DTMs to access Hart compatible field devices.

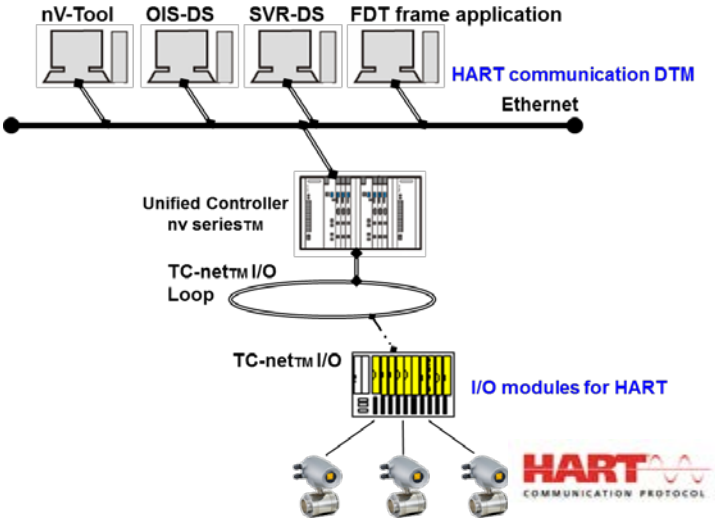

Fig.1 A FDT/DTM system configuration

Table 1 The specifications

Item	AI9H9B
Number of inputs	16 inputs
Input signal	1~5VDC for HART communication
Insulation	Package insulation
Data resolution	16 bits
Data update cycle	20msec/16
Reference accuracy	±0.1%/FS, @25deg.C/+24V

Item	AO9H9B
Number of outputs	16 outputs
Output signal	4-20mA for HART communication
Insulation	Package insulation
Data resolution	4mA : 800 counts, 20mA : 4000 counts
Data update cycle	20msec/16
Reference accuracy	±0.1%/FS, @25deg.C/+24V

■ AI9H9B/AO9H9B the HART modules

Each channel of the I/O modules has a built in HART modem which, unlike multiplexer types, allows you to configure and operate the devices seamlessly from a remote location through the FDT frame application (*2).

*1 : A de facto standard method for communicating with industrial field devices; proposed by the HART Communications Foundation.

*2 : Application which manages DTMs as device drivers controlling the communication with field devices.

■ The Communication DTM

In the FDT/DTM System there are Device DTMs and Communication DTMs. The Device DTM is developed by the device vendor for each of his devices. Toshiba provides two types of communication DTM to communicate with the HART compatible device.

A) PCMP Comm DTM
This provides communication between an FDT frame application and a Toshiba Unified Controller nv series$_{TM}$ type 2.

B) HART GW DTM
This functions as a gateway between a Toshiba Unified Controller nv series$_{TM}$ type 2 and HART compatible field devices and registers the configuration of the I/O modules for HART in a file exported from the nV-Tool.

Notes

●Contact Information
TOSHIBA CORPORATION
Social Infrastructure Systems Company
Security & Automation Systems Division
TEL: +81-44-331-1694 FAX:+81-44-548-9553
72-34, Horikawa-cho, Saiwai-ku, Kawasaki 212-8585, Japan