

# TOSHIBA

Leading Innovation >>>

## 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<sub>TM</sub>-CIE DS/nv system and can deliver the collective management of your field devices from the plant control room.



Toshiba Group contributes to the sustainable future of planet Earth.



## ■ System configuration

An FDT/DTM HART (\*1) compatible system is illustrated below. The TOSDIC™ 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.

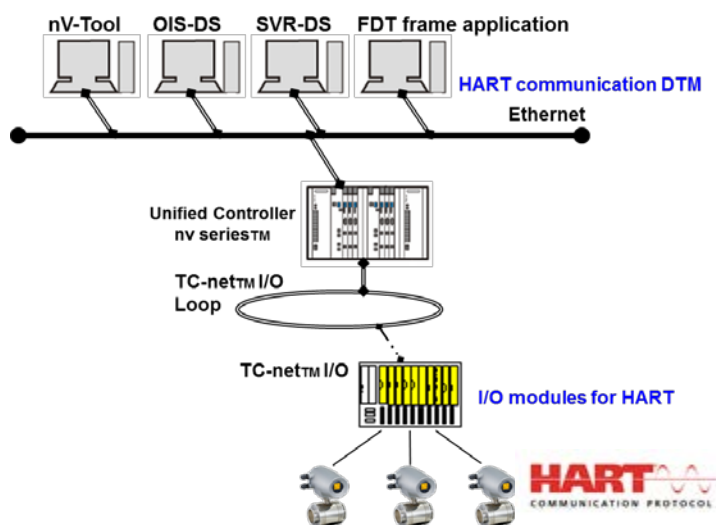


Fig.1 A FDT/DTM system configuration

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™ type 2.

### B) HART GW DTM

This functions as a gateway between a Toshiba Unified Controller nv series™ 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

- TOSDIC, TC-net and Unified Controller nv series are trademarks of Toshiba Corporation. Other company names and product names herein are trademarks or registered trademarks of the companies concerned.
- Under no circumstances, our company assumes no responsibility for incidental damages resulting from the use or unavailability of this product (including, but not limited to damages from loss of business profits, business interruption, loss of business information or data, or other monetary damages).
- This product is not manufactured for the purpose of being applied to a system requiring safety directly involved human life as follows. Please contact your TOSHIBA sales representative if there is a possibility of using this product for such use.  
[Ex.] ◇Main control systems of nuclear power plants, safety protection systems in nuclear facilities or other important systems requiring safety ◇Operation control system for collective transportation systems, and air traffic control system ◇Medical control systems relating to life support
- Before using the product, please read the instructions manual carefully and understand the contents, and then use the product correctly.
- TOSHIBA products should not be embedded to the downstream products which are prohibited to be produced and sold, under any law and regulations.
- The products described in this document are subject to foreign exchange and foreign trade laws.
- The products described in this document contain components made in the United States and subject to export control of the U.S. authorities. Diversion contrary to the U.S. law is prohibited.
- The information contained herein is presented only as guide for the applications of our products. No responsibility is assumed by TOSHIBA for any infringements of patents or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of TOSHIBA or others.

## ● 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

- Specifications or designs described in this catalog are subject to change without prior notice due to design change or other reasons.
- The contents in this catalog is as of March 2014.
- The name of the products described in this catalog may be used as a trademark by each company.