



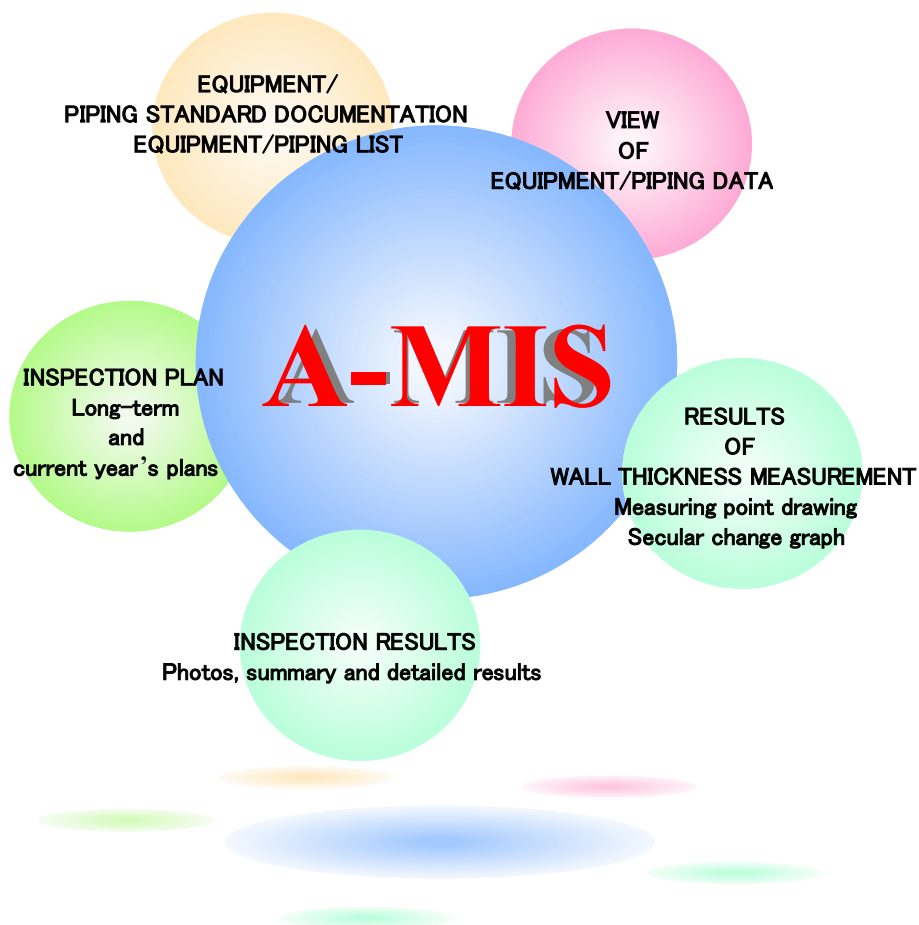
Plant
Maintenance
Awards
2001/2009

Facility Diagnosis Support System

A-MIS

Advanced Maintenance Inspection Support System

Version6



Here comes A-MIS Version 6 to “Visualize Inspection Data.”

Our inspection supporting system has developed with continuous upgrades since the first release in 1989. Recently, a total of 100 customers—oil refineries, petrochemical and chemical complexes in Japan—are using A-MIS, and A-MIS accounts for up to 80% of the domestic market. Furthermore, we have developed English, Korean and Chinese versions of A-MIS for potential global customers.

Now, A-MIS Version 6 is available with enhanced element technologies and improved operability of each function.

By setting our development theme as “Visualize Inspection Data,” we have pursued the view-ability of inspection planning, Inspection record and wall thickness measurement data.

We believe that dramatically upgraded A-MIS Ver.6 enables you to conduct inspection works more precisely and effectively ever before.

Challenges to “Visualization”

■ Built-in CAD Viewer Dedicated for A-MIS

A-MIS Ver.6 has dedicated CAD viewer, so even though your computers don't have any CAD software, the computers can display CAD files with this viewer. Not only DXF and DWG files, but also BMP, JPEG and TIFF files can be displayed.

■ Ballooning Function

Newly developed ballooning function makes it easier and more precise to identify inspection locations on drawings.

You can choose balloon shapes from four variations as ○, □, △, ◇ and their size as well. The balloons on drawings are linked to the data of inspection results, and colors of them change reflecting the inspection results, remaining life and so on. This function helps users to evaluate inspection result.

■ Markup Function

Markup function allows you to write maintenance records directly on your inspection drawings just like you do with common image editor. This function is effective especially when you register inspection result of complicated piping. You don't need to describe where you inspect, just pointing at the inspection location and writing the results on drawing instead.

Major Function

■ Plot Plan

You can grasp whole conditions of plant visually with registered plot plan. Clicking on objective area or line on the plot plan displays PFD. (PFD can be set instead of plot plan.)

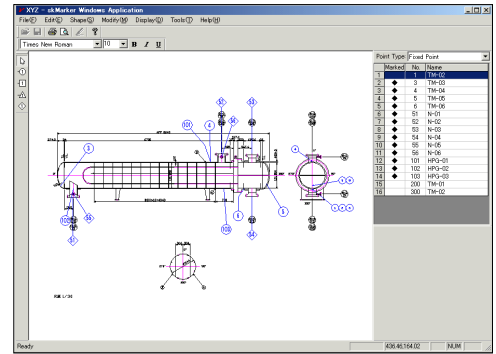
■ Display PFD

A-MIS Ver.6 can show drawing and item list at the same time. Equipment/piping and items on the list corresponds with each other, so clicking a line on drawing automatically select the line on the list. On the other hand, selecting item on the list highlights the corresponding equipment/piping on the drawing.

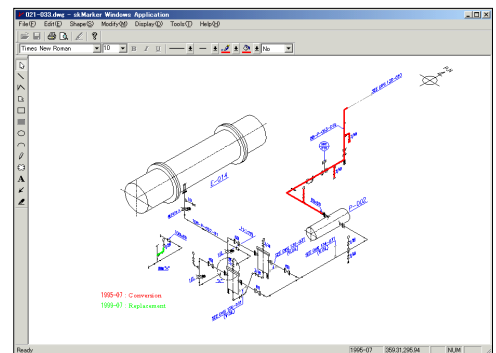
Additionally, items can be color-coded in response to its remaining life, corrosion rate and remaining thickness, so you can check the problematic items at a glance.

■ VI/NDI Planning

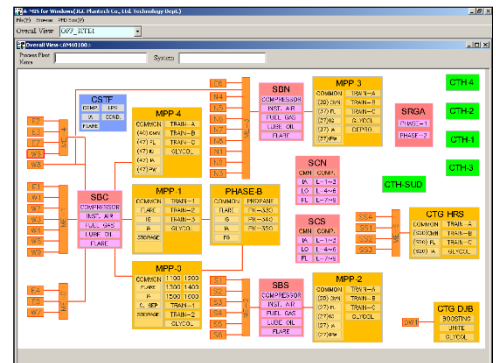
Recently, inspection plans need to be complete without omissions, so careful management such as RBI, controlling location and damage mode, is adopted increasingly. To demand these needs, A-MIS Ver.6 can make plans reflecting conditions of “inspection location” and “damage mode.” (It is also possible to make plans reflecting the conditions of “Inspection Purpose” and “Inspection Method.”)



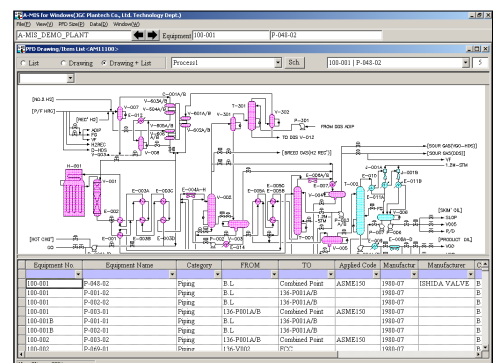
● Put balloons on measurement points



● Write inspection results on drawing



● Plot plan



● Display item list and PFD

VI/NDI Results Registration

Planning function of VI/NDI improves as well as registration function of inspection results.

Colors on Inspection Results

Depending on inspection results, the corresponding item on the list is color-coded. This helps you to know the situation of equipment/piping, whether the part is healthy or not, at a glance.

Register Action and Advice for the Next Time

Work description, advice and other comments for the next time can be registered to each inspection point and inspection purpose. These comments for the next time are reflected to the future inspection plans.

Manage Wall Thickness Measurement Data

A-MIS Ver.6 can contain thickness measurement data that you acquire during VI/NDI. With the data, corrosion rate and remaining life can be calculated. *Thickness data stated here is managed differently from thickness data of fixed points.

Register Reports and Photos

You can register any documents and a photo for each inspection result. If you have paper-based reports from contractors, you can scan it, save it and register it here. You can save the time to look for certain document from a significant amount of documents.

Thickness Measurement Planning

You can check plans you made to each measurement point on a list. At the same time, thickness measurement drawing is displayed, so that it is easy to check measurement points, which have problems.

Planning

You can make following types of plans: TBM, CBM, Manual and Updated Planning. Once you set conditions to make TBM or CBM plans, A-MIS automatically makes long-run plans. When you need to change the plans, you can do it with Manual or Updated Planning.

- *TBM = Time Based Maintenance
- *CBM = Condition Based Maintenance

Batch Planning

You can establish and register your own rules for planning. Batch planning function applies the rules and makes multiple plans without omissions at one time.

Thickness Measurement Result Registration

A-MIS Ver.6 has enhanced data registration and management functions of wall thickness measurement.

Display Specification Related to Wall Thickness

Data list on measurement registration window is configurable as you like. So if there are some items that you don't need, you can hide it and organize the list.

Distinguish Corrosion Rate by Color-coded Balloon

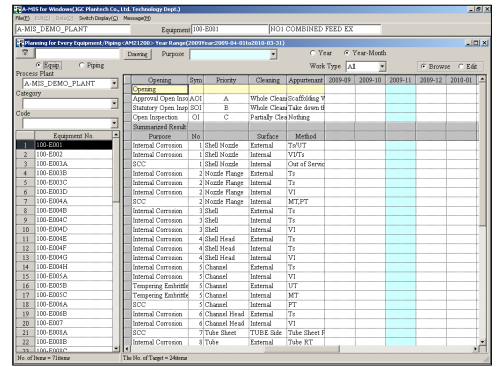
Balloons are color-coded synchronizing with measurement data and corrosion rate. With the colorful balloons, you can easily check how much and which locations of equipment/piping corrode.

Trend Graph of Wall Thickness

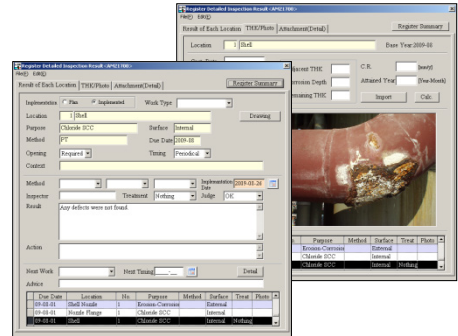
Registered measurement data is used to plot a trend graph. You can visually understand how wall thickness decrease through this graph.

Corrosion Rate on the Graph

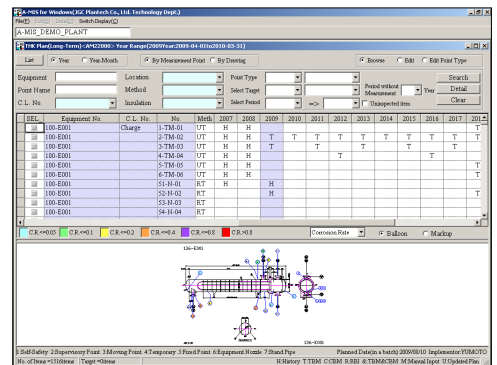
There are three calculation methods for corrosion rate and remaining life—Long-Term method, Short-Term method and least squares. Each calculation method gives you different values. The calculated corrosion rate is drawn on the graph as straight line and it gives you the rough estimation of future thickness trend.



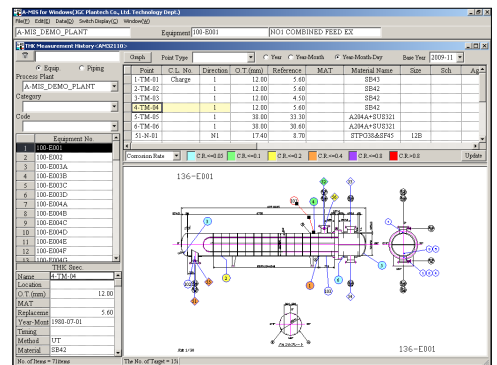
● Planning VI/NDI



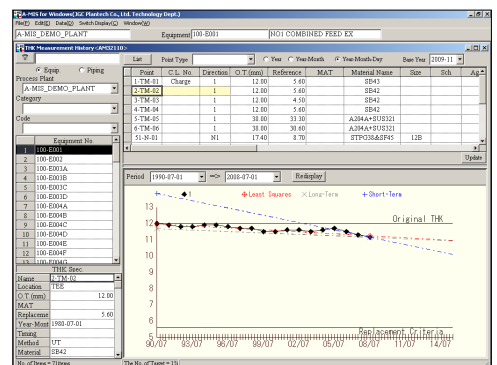
● VI/NDI Result Window



● Thickness Measurement Plan



● Thickness Measurement Results and Drawing



● Measurement Results & Trend Graph

Data Capacity

Specification Data

Object	Maximum Capacity
Process Plant	999
System (PFD)	9,999
Equipment/Piping	999,999
Component	99,999,999
Drawing	999,999
Measurement Point on Drawing	999

※Each numerical value is management capacity of the whole system.

Historical Record

Object	Maximum Capacity
Inspection Summary	Unlimited
VI/NDI	Unlimited
Thickness Measurement	Unlimited

Operating Environment

Hardware Requirements (Recommendation)

Server (With Network)	CPU : 3GHz (x86 x64)
	Memory : 4GB or more
Client	CPU : 2~3GHz (x86 x64)
	Memory : 4GB or more
	Display : 1024×768 or more
Stand-Alone	CPU : 2~3GHz (x86 x64)
	Memory : 4GB or more
	Display : 1024×768 or more

OS/DBMS Environment

Oracle Database		11.2	12.1	12.2
Network	Server	Windows 2008 (x64)	Windows 2008 (x64)	Windows 2012 (x64)
		Windows 2012 (x64)	Windows 2012 (x64)	Windows 2016 (x64)
	Client	Windows 7 Pro (x86 x64)	Windows 7 Pro (x86 x64)	Windows 7 Pro (x86 x64)
			Windows 8.1 Pro (x86 x64)	Windows 8.1 Pro (x86 x64)
Windows 10 Pro (x86 x64)	Windows 10 Pro (x86 x64)			
Oracle Personal Edition		11.2	12.1	12.2
Stand-Alone	Windows 7 Pro (x86 x64)	Windows 7 Pro (x64)	Windows 7 Pro (x64)	
		Windows 8.1 Pro (x64)	Windows 8.1 Pro (x64)	
		Windows 10 Pro (x64)	Windows 10 Pro (x64)	

※Additional meetings are required in order to discuss computer-mediated environment such as network protocol.

※The system architecture and the specifications may change without prior announcement.

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※Windows is a registered trademark of Microsoft Corporation in the United States and other countries.

Operating Support

System Support Group

Your requests and inquiries are highly appreciated.

Specialized staffs will assist your operation of A-MIS and related systems.

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<https://www.jgc.com/en/> System Site : <https://www.a-mis.com/enUser/>

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