

ABB Inc.
Consulting



Asset Sentry Screen Shots



Navigation Tools

The screenshot shows the 'AssetSentry: Main Menu' in Microsoft Internet Explorer. The browser's address bar displays 'http://www.assetsentry.com/menu.asp'. The page features the ABB logo on the left and the title 'Advise^{IT} Asset Sentry' in the center, with 'powered by MSI' on the right. A 'Main Menu' section includes a 'No Alerts' button and a grid of 'Fast path' hot buttons. A vertical 'MENU' on the right lists: EQUIPMENT STATUS, ON-LINE MONITORING, LOG / ROUTE MANAGE, REPORTS, DOCUMENT MANAGEMENT, and ADMINISTRATION. A small photograph of an electrical substation is visible in the lower-left area.

Main Menu

No Alerts

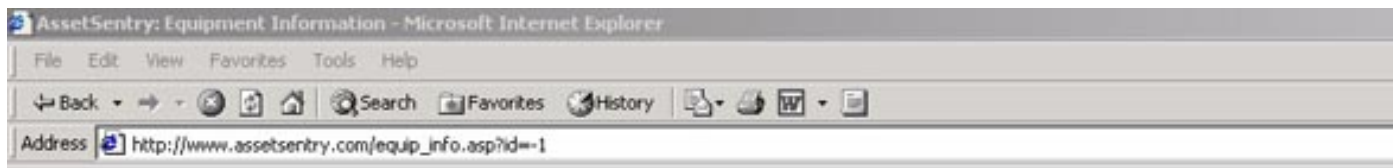
Fast path hot buttons allow quick access to all the key pages within Asset Sentry. Links are provided to the report, search, route, and exception creation

- EQUIPMENT STATUS
- ON-LINE MONITORING
- LOG / ROUTE MANAGE
- REPORTS
- DOCUMENT MANAGEMENT
- ADMINISTRATION

Menu-driven links to all pages and engines within Asset Sentry.

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Equipment Information Tree



Advise^{IT} Asset Sentry

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MSI

Equipment Information

No Alerts

Editing is OFF



Database

ABB SUB DEMO

REGION

NORTHEAST

SERVICE CENTER

MONTGOMERY

SUBSTATION

SUBSTATION #1

Tree-like hierarchy for identifying components. Four levels are available: Database, Region, Service Center and Equipment.

Equipment

Select

CIRCUIT BREAKER #105
CIRCUIT BREAKER #115
CIRCUIT BREAKER #3
DISCONNECT #1
DISCONNECT #2
DISCONNECT #3
DISCONNECT #4
RELAY #1
RELAY #2
RELAY #3
STATION BATTERY #1
SUBSTATION
SWITCHGEAR #1
SWITCHGEAR #2
TEST TRANSFORMER
TRANSFORMER #1
TRANSFORMER #2
TRANSFORMER #3

Equipment list for selected substation



Equipment Information Details

AssetSentry: Equipment Information - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://www.ass

ABB Advise^{II} Asset Sentry

Equipment Information

No Alerts Editing is OFF

RCM tab provides a means of calculating or specifying a criticality index for the equipment

Design specs show general nameplate and design data

Lists of all condition monitoring tasks associated with this equipment

General info tab contains information such as manufacturer, vendor, installation date, etc.

Return to Equipment Tree

EQUIPMENT INFORMATION					
Description	Equipment ID	Subtype	Responsible Indiv.		
CIRCUIT BREAKER #105	CB-105	OIL CIRCUIT BREAKER	Evans, Jeff		
REGION	SERVICE CENTER	SUBSTATION	VOLTAGE CLASS	SUB TYPE	STREET ADDRESS
NORTHEAST	MONTGOMERY	SUBSTATION #1	220KV	TRANSMISSION SUB	333 RIDGEVIEW RD.

General Info Design Specs RCM Data Monitoring Tasks Lubrication Info

DESIGN SPECIFICATIONS

# OF TANKS	BUSHING TYPE	TYPE U	INTERRUPT TIME	5 mSEC
BUSHING #1: SERIAL #	CONTROL VOLTAGE	120 VOLTS	LOW PRESSURE ALARM	100 PSI
BUSHING #2: SERIAL #	CT RATIO: SET #1	120:1	LOW PRESSURE CUT-OUT	85 PSI
BUSHING #3: SERIAL #	CT RATIO: SET #2	120:1	MAX VOLTS	75 KV
BUSHING #4: SERIAL #	CT RATIO: SET #3	120:1	MECHANISM TYPE	AIR
BUSHING #5: SERIAL #	CT TYPE: SET #1	OIL	OIL VOLUME PER TANK	200 GAL
BUSHING #6: SERIAL #	CT TYPE: SET #2	OIL	PCB CONTENT	5
BUSHING AMPS	CT TYPE: SET #3	OIL	RATED CONTROL CURRENT	12 AMPS
BUSHING KV	IMPULSE LEVEL	125 KV	TOTAL OIL VOLUME	600 GAL
BUSHING MANUFACTURER	INTERRUPT RATE	33		

Visual Image Upload

You can upload pictures of infrared surveys and other digital images of exceptions




Equipment Monitoring Information

AssetSentry: Status Summary - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History

Address http://www.assetsentry.com/equip_status.asp?i=96n=4&un=12




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Status Summary

No Alerts



Sort by [Description] [Equipment Criticality]

STATUS SUMMARY

[Return to Equipment Tree](#)

REGION: NORTHEAST , SERVICE CENTER: MONTGOMERY , SUBSTATION: SUBSTATION #1

Equipment Description	INSPECTION	OIL	IR THERMO	TESTING	ON-LINE
CIRCUIT BREAKER #105 (55)	Unacceptable	Unacceptable	Unacceptable	Marginal	Normal
CIRCUIT BREAKER #115 (76)	Marginal	Normal	Marginal	Unacceptable	Marginal
CIRCUIT BREAKER #3 (62)	Normal	N/A	Normal	Normal	Normal
DISCONNECT #1 (45)	Normal	N/A	Unacceptable	Unacceptable	N/A
DISCONNECT #2 (45)	Normal	N/A	Normal	Normal	N/A
DISCONNECT #3 (40)	Normal	N/A	Normal	Normal	N/A
DISCONNECT #4 (55)	Marginal	N/A	Marginal	Normal	N/A
RELAY #1 (35)	N/A	N/A	N/A	Normal	N/A
RELAY #2 (35)	N/A	N/A	N/A	Normal	N/A
RELAY #3 (40)	N/A	N/A	Pending	N/A	N/A
STATION BATTERY #1 (68)	Pending	N/A	Unacceptable	Normal	N/A
SUBSTATION (68)	Unacceptable	N/A	N/A	N/A	N/A
SWITCHGEAR #1 (60)	Normal	N/A	Marginal	N/A	N/A
SWITCHGEAR #2 (60)	Normal	N/A	Normal	N/A	N/A
TEST TRANSFORMER	Normal				N/A
TRANSFORMER #1 (64)	Normal				Normal
TRANSFORMER #2 (15)	Normal				Normal
TRANSFORMER #3 (85)	Normal				Pending

High-level status summary of each condition monitoring technology, for all equipment in a substation. The page provides the capability to drill down to the details of each abnormal condition.

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Exception Reporting

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Exception Report
No Alerts Editing is OFF

Work Status tab provides a means of tracking the progress of a work order issued to address the exception.

The General Info tab contains the description of the problem, analysis comments, recommended actions, failure codes and whether a work order is required and issued.

Cost Benefit tab provides a means of performing a Cost Benefit analysis for correcting the current exception.

Links to other exceptions and history of exceptions on the equipment.

EQUIPMENT INFORMATION					
Description	Equipment ID	Subtype	Responsible In		
CIRCUIT BREAKER #105	CB-105	OIL CIRCUIT BREAKER	Evans, Jeff		
REGION	SERVICE CENTER	SUBSTATION	VOLTAGE CLASS	SUB TYPE	STREET
NORTHEAST	MONTGOMERY	SUBSTATION #1	220KV	DISTRIBUTION SUB	799 DELAWARE

View Exception List View Exception History Quick Report

EXCEPTION GENERATED ON 8/20/02 AT 11:11:29 AM

ID	Condition Status	Initiated By	Technology	Priority	Exception Status
138	Unacceptable	Frimpong, George	IR THERMOGRAPHY	WATCHLIST	Open

GENERAL INFORMATION

Problem Description IR INSPECTION STATUS: RESPONSE 'MARGINAL', COMMENT: B PHASE BUSHING HOTSPOT AT BOLTED PAD CONNECTION	Failure Codes CRACKED INSULATOR IR: BUSHINGS PROBLEM	Reference Image Upload
Analysis Comments	Root Causes	Diagnostic Image Upload
Final Recommendation Reinspect during next scheduled outage		
Work Order Required? NO		

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Trending of Monitoring Points

AssetSentry: Route Data - Microsoft Internet Explorer

Address: http://www.assetsentry.com/route_data.asp?id=138r=8g=14

Monitoring point selection

Return to Route History

Date range: [] to []

Monitoring points

Show Chart Size: Large Small Format: JPG ActiveX Style: Line Point View: 3D 2D

DEMONSTRATION	Alarm Limits	Frequency	Technology	Status	Select
DEMONSTRATION					
HYDROGEN (MAIN TANK)	Hi limit: >500 PPM	180 days	DGA	Marginal	<input checked="" type="checkbox"/>
METHANE (MAIN TANK)	Hi limit: >120 PPM	180 days	DGA	Marginal	<input type="checkbox"/>
ETHANE (MAIN TANK)	Hi limit: >65 PPM	180 days	DGA	Marginal	<input type="checkbox"/>
ETHYLENE (MAIN TANK)	Hi limit: >50 PPM	180 days	DGA	Normal	<input type="checkbox"/>
ACETYLENE (MAIN TANK)	Hi limit: >35 PPM	180 days	DGA	Normal	<input type="checkbox"/>
CARBON MONOXIDE (MAIN TANK)	Hi limit: >1000 PPM	180 days	DGA	Normal	<input checked="" type="checkbox"/>
CARBON DIOXIDE (MAIN TANK)	Hi limit: >10000 PPM	180 days	DGA	Normal	<input type="checkbox"/>
OXYGEN (MAIN TANK)					<input type="checkbox"/>
NITROGEN (MAIN TANK)					<input type="checkbox"/>
TDCG (MAIN TANK)					<input type="checkbox"/>
DGA RESULTS (MAIN TANK)					<input type="checkbox"/>
DIELECTRIC (MAIN TANK)					<input type="checkbox"/>
MOISTURE (MAIN TANK)					<input type="checkbox"/>
NEUTRALIZATION NUMBER					<input type="checkbox"/>
INTERFACIAL TENSION					<input type="checkbox"/>
POWER FACTOR (MAIN TANK)					<input type="checkbox"/>
TEMPERATURE (MAIN TANK)					<input type="checkbox"/>
COLOR (MAIN TANK)					<input type="checkbox"/>
PCB RESULTS					<input type="checkbox"/>
QUALITY RESULTS					<input type="checkbox"/>

Trend Chart - Microsoft Internet Explorer

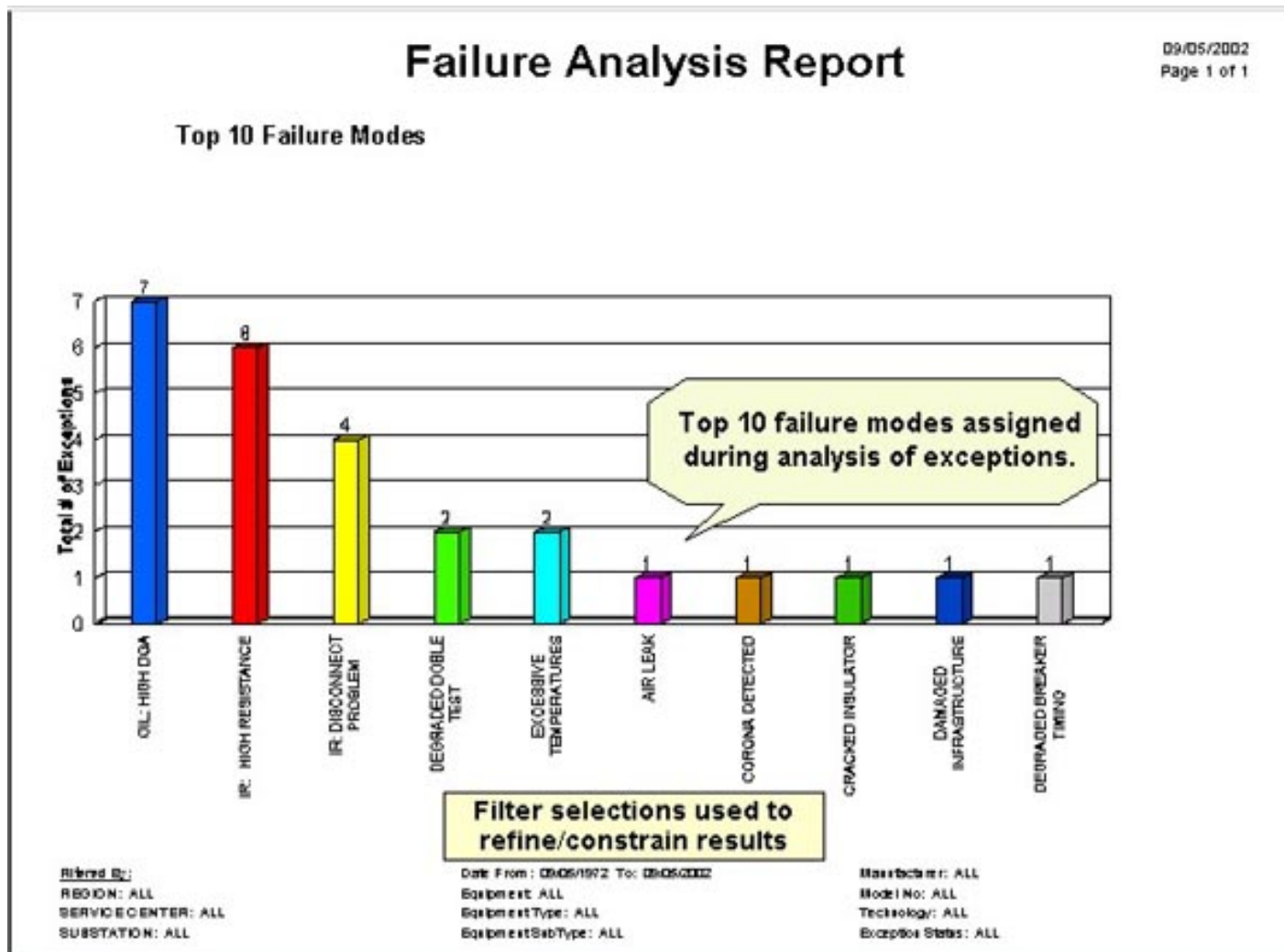
ZZ Z Z

— TRANSFORMER #1: HYDROGEN (MAIN TANK)
 — TRANSFORMER #1: CARBON MONOXIDE (MAIN TANK)
 — TRANSFORMER #1: TDCG (MAIN TANK)

Trend graph of monitoring points. Up to four monitoring points can be displayed simultaneously. Cross-trending can be performed by selecting

* denotes reading is beyond current alarm limits.

Failure Analysis Reporting



Asset Sentry



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