Insider Technologies Limited

Specialist solutions for monitoring, tracking and automation

Reflex 80:20

"The most advanced HP NonStop Monitoring & Automation Toolset"

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Insider Technologies Limited

Is a UK-based software house and services company, a Microsoft Gold Certified Partner and is Quality Certified to ISO 9001:2008 and TickIT

Is a HP Partner, providing RTLX Reactor, Reflex & MultiBatch for the Business critical 24 x 7 HP NonStop systems (formerly Tandem Computers) and Sentra software monitoring & tracking solutions for the Windows and Unix platforms

Operates in the Financial, Government & Defence and Messaging Markets, providing Service Management, Message Tracking, Custom Bespoke software and Middleware Provisioning solutions

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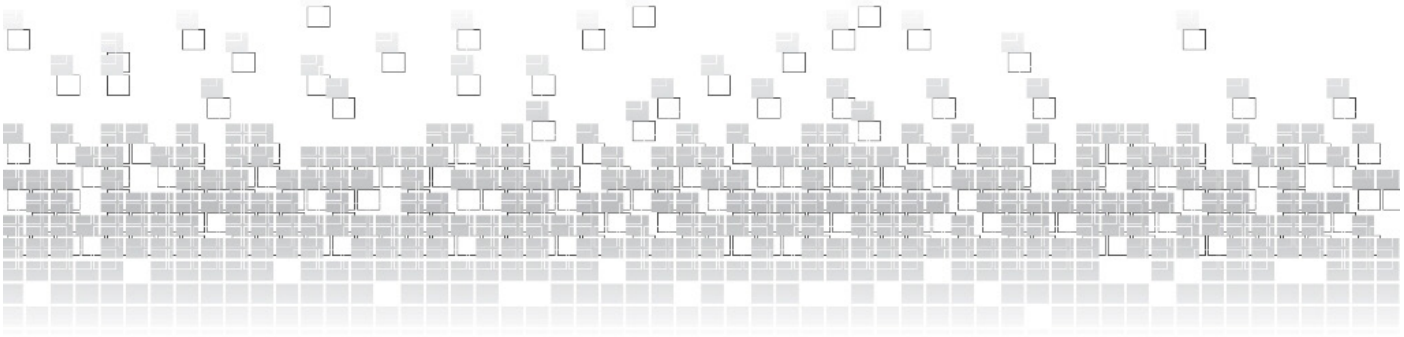

Company Overview

Who we are:

- Established 1989
- Privately owned, independent company
- Head office based in the thriving business docklands of Manchester, England
- Nucleus of staff who have 20+ years experience in Messaging, Microsoft, Open Platforms and HP NonStop (Tandem Computers)
- 80% of our customers are within the Government and Finance sector
- Our product set is continually enhanced for our client base

Our Products:

Highly focused and graphically advanced products for monitoring a broad range of technologies, operating systems and subsystems across Windows, Unix, Linux and HP NonStop platforms, incorporating database, transaction, web, and PDA expertise.

Our Philosophy:

Be Creative!
We see creativity as the ability to establish a solution that was not there before, in a way that establishes a new standard. It is one of the primary, sought-after values in the industry, for it defines an individual who is prepared to turn their job into a dedicated art form.

Our Clients:

Over 400 accounts worldwide use one or more of our products and/or services.

The nature of our customer base dictates that our products are 'business critical' and consequently, our products are subject to rigorous acceptance testing.

Our major clients include:

- Central & Investment Banking
- Retail Banking
- Government & Defence
- Manufacturing & Distribution
- Telecommunications

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Reflex is a dynamic Operations and Service Management product for the HP NonStop arena and is in use in many of the worlds most demanding Financial and Telecommunications sites.

Its advanced architecture provides object based, state table monitoring of:

- Systems
- Networks
- Hardware
- Subsystems
- Processes
- Files
- Applications
- Events
- 3rd party applications

Reflex's unique design lies in its ability to pull together a massive amount of active monitoring (objects, subsystems, events, applications) into a single set of screen objects, providing the means to diagnose a problem object in more detail via context sensitive drill-down.

Performance monitoring is included, supplying Dashboards for the Business and Technical communities.

Reflex is a complete Reactive and Proactive monitoring solution, utilising the HP NonStop Event Management Service (EMS) to retrieve and process nominated events.

Some of the benefits of this approach is to provide Business and Technical personnel with:

- Early warning of business process vulnerability
- Automated escalation
- Automated problem resolution at source
- Routing of key events to primary Enterprise Managers
- Conversion of text events to EMS for WebSphere MQ, OSS, User Applications and System processes

Further information can be obtained from the Reflex White Paper.

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Reflex 80:20 Philosophy

The HP NonStop Event Management System (EMS) is installed on every HP NonStop system, logging your hardware, operating system, application and subsystem events to a log file.

Although Reflex is driven by these core HP NonStop EMS events, it can also translate any other EMS events and in the process, trigger state changes.

The EMS log files can be overloaded with events which could be ignored or missed by Operations Business personnel and to design and base a Management regime for your HP NonStop node on EMS events, requires much research and development.

Conquering this issue is the unique strength of Reflex 80:20.

Reflex 80:20 provides the industry's lowest overhead on CPU utilisation - just 1%

Reflex is not just an EMS event management product but provides Reactive and Proactive engines, facilitated with secure Command and Control functionalities.

Your NonStop applications and subsystems, such as Disks, CPUs, Processes, Files and BASE24 XPNET components, including your networked NonStop systems are automatically monitored via Reflex.

You can rest assured that your Business will be informed if anything untoward occurs on your NonStop networks.

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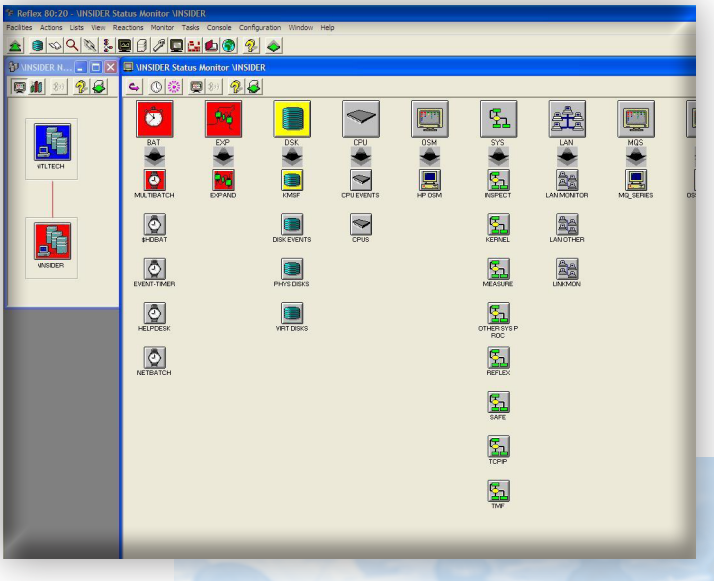
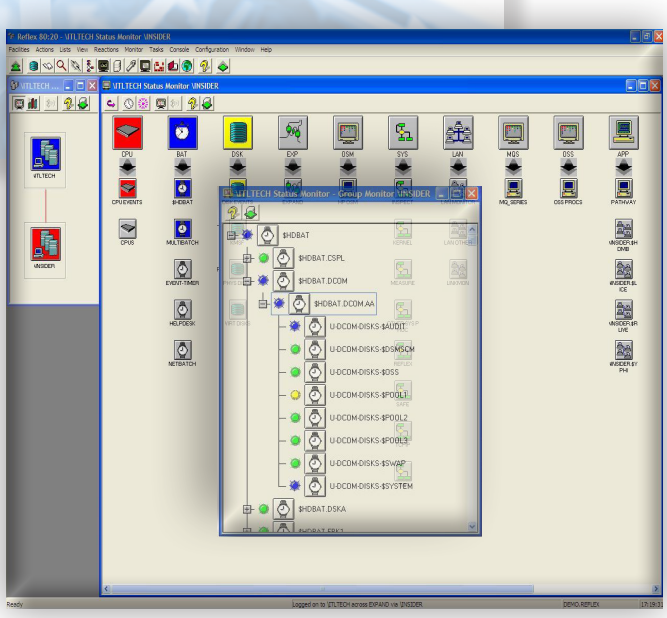
Systems Health



Reflex provides a high-level graphical interface, enabling you to view and receive alerts across your entire NonStop networked environment.

At a glance, your Operations Bridge and Business personnel can immediately see the health of your NonStop systems, with tailored views providing the current status of your HP NonStop platforms (including Integrity and Blade technologies) and of course, your critical Business applications.

- *User configurable views*
- *Auto-configuration toolset*
- *Colour coded alerts*
- *Drill into an object to view configuration details*
- *Monitor all HP NonStop subsystems and applications*
- *Perform Task resolution via GUI - no need for TACL intervention*



• **Red** icon:
A serious failure has occurred.

• **Blue** icon:
A problem has occurred and if not resolved, then it could turn into a critical issue, e.g. the loss of a Disk Path.

• **Yellow** icon:
The problem has been acknowledged by a user and is under investigation.

If your systems are healthy, then the icons remain unaffected.

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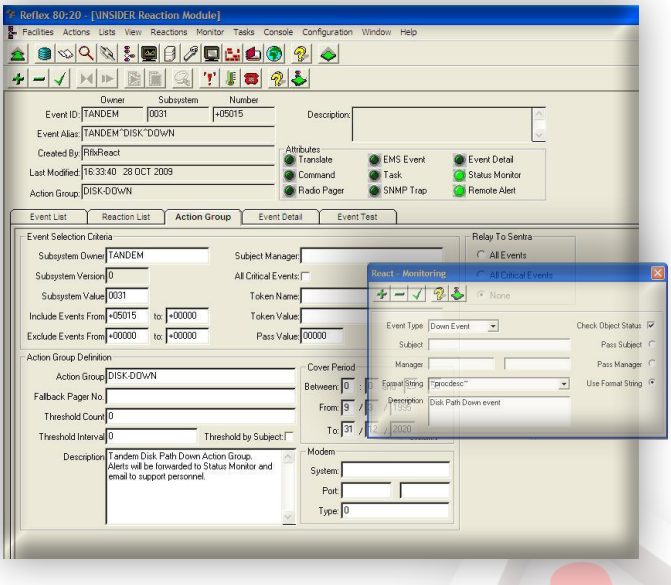
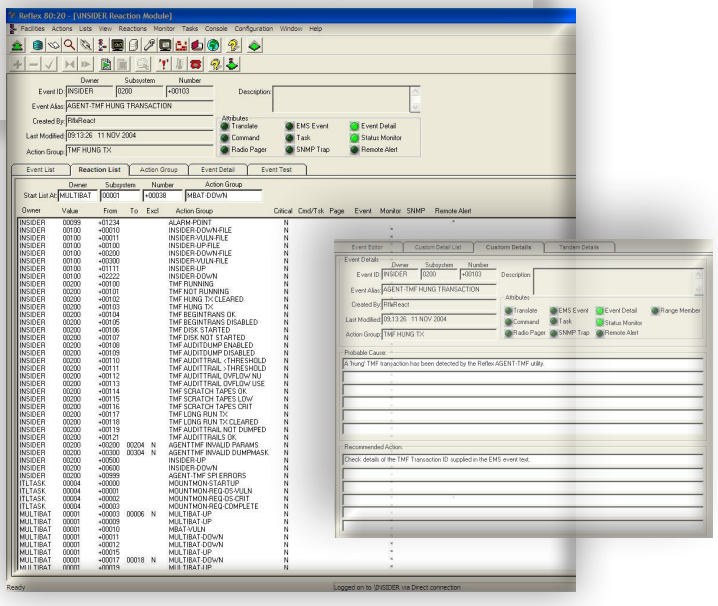
THE Event Monitor



The Reflex Event Monitor connects to your primary EMS Collector $0 and to any nominated alternate collectors, waiting patiently for the receipt of events.

Events which are configured in the Reaction database will be monitored by the Reflex Event Monitor and actioned upon, depending on the type of automation associated with the events.

- *Variety of EMS events pre-configured, ready to alert*
- *Low overheads compared to other 3rd party monitoring products*
- *Events can be forwarded to a range of Consoles & Enterprise Managers*
- *Configure Task Automation at source*
- *Dynamic Filter Compilation*
- *Create your own Cause, Effect & Recovery*



Compared to other 3rd party systems / performance monitoring products, Insider's Reflex product only utilises a single EMS event distributor on each node to capture the events for management and escalation.

This is regardless of how many GUI sessions are open, whereas comparative products create individual EMS Distributor processes per GUI session, incurring unnecessary overheads on your HP NonStop platforms.

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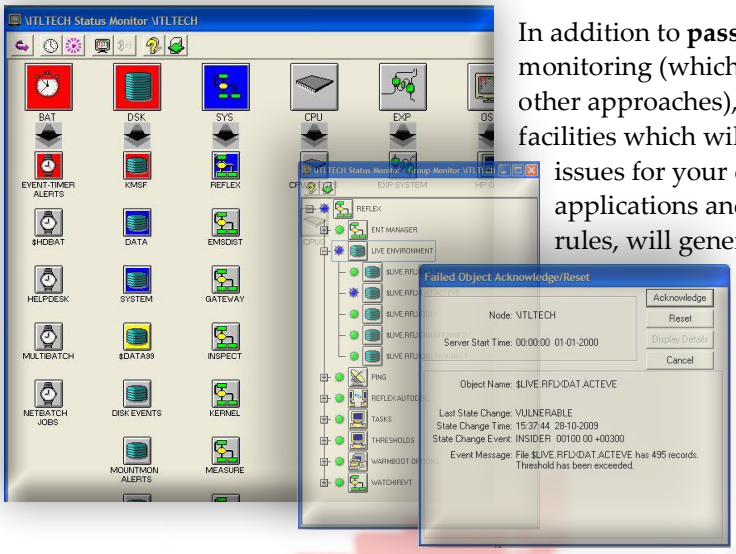
Be Proactive!



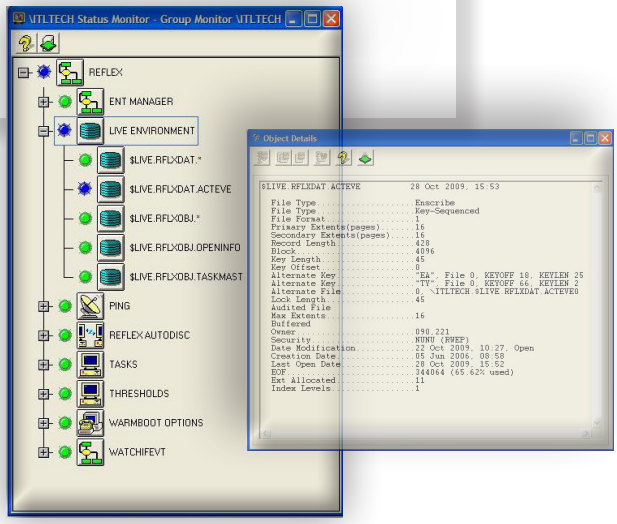
In addition to **passive** EMS event monitoring (which is all that is offered by other approaches), Reflex provides a set of facilities which will investigate potential issues for your critical subsystems and applications and based on thresholding rules, will generate a unique EMS event to then drive the *Reactive* facilities within Reflex.

This set of facilities make up the Reflex *Proactive* Monitoring suite.

- *Performance Dashboards*
- *Process Monitoring*
- *File Metrics & File Existence Monitoring*
- *Spooler Monitoring*
- *Tape Mount Monitoring*
- *Service Monitoring*
- *TMF Monitoring*
- *RDF Monitoring*

Reflex is also supplied with various Agents to obtain details for:

- *Physical & Virtual Disks*
- *Guardian & OSS Files*
- *BASE24 XPNET components*
- *WebSphere MQ*
- *MultiBatch Jobs*
- *NetBatch Jobs*
- *Pathway Objects*
- *Guardian & OSS Processes*
- *Spooler Objects*
- *HP NonStop Hardware*
- *TCP/IP Objects*
- *X.25 Objects*



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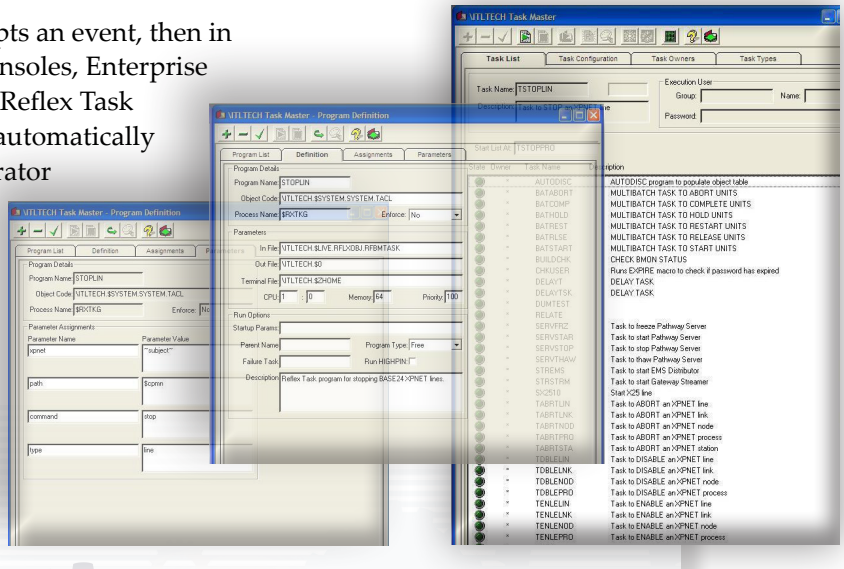
Automated Problem Resolution

When Event Monitor intercepts an event, then in addition to forwarding to Consoles, Enterprise Managers, Emails and GSM, Reflex Task Master can be configured to automatically execute a Task, or let an Operator determine when to run the Task corrective action.

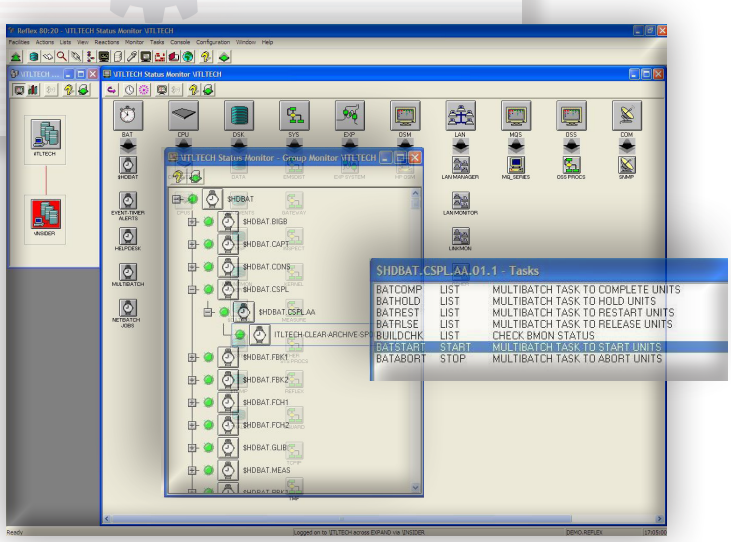


No programming knowledge is required; instead Tasks utilise low-level procedure calls, driven by command line processes.

- *Easy to configure*
- *Audit reporting tool available for Tasks*
- *Execute Tasks automatically when an event is received*
- *Execute Tasks manually via Status Monitor or Tasks module*
- *Run Tasks as different User ids*
- *Utilise Tasks to start / close applications, based on an event being received*

Tasks can be configured to automatically resolve a problem when an event occurs, or it can be left to the discretion of the user to execute the Task.

In-built security denies or allows access to these Tasks, so you can rest assured that only appropriate personnel will be able to configure or run Tasks.



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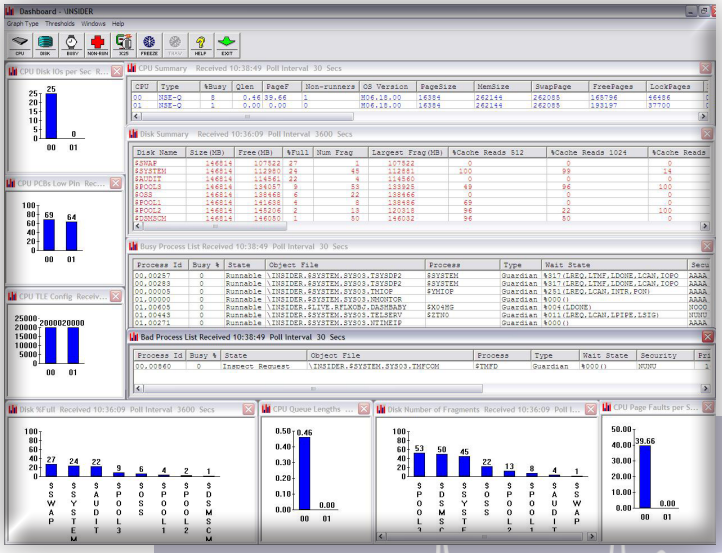
Dashboard



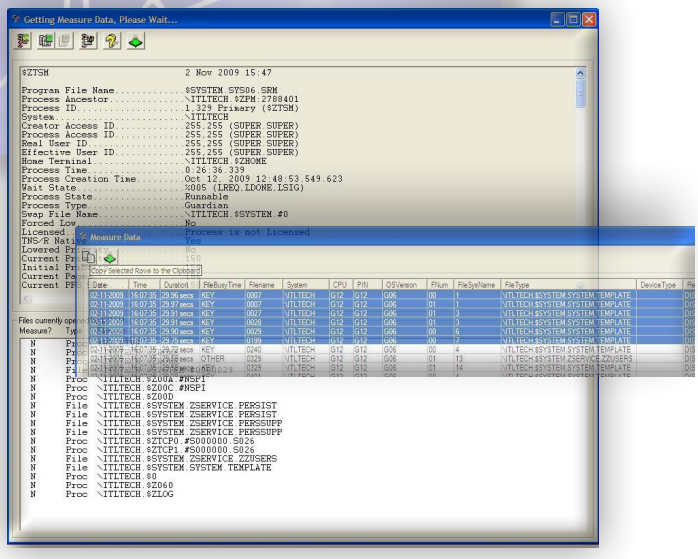
Performance and capacity statistics are retrieved from a variety of NonStop subsystems and the results are then processed in a variety of ways:

- *Statistics are displayed in a dedicated Dashboard display*
- *Statistics are analysed and compared with pre-configured values*
- *Events can be issued for when thresholds are exceeded*
- *Low level procedure calls are used to retrieve statistics*

- *Performance metrics*
- *Threshold measurements*
- *Run Measure on demand*
- *Obtain Guardian Process details, including open files*
- *Obtain OSS Process details, including its Guardian filename equivalent*
- *Monitor Looping, Busy & Suspended Processes*

As with Process objects in Status Monitor, detail can be obtained for a running OSS or Guardian Process, which is displayed in the Busy or Non-Running Dashboard windows.

Measure can also be run on-demand, ensuring that you are *in control* as to when you obtain Measurement metrics.



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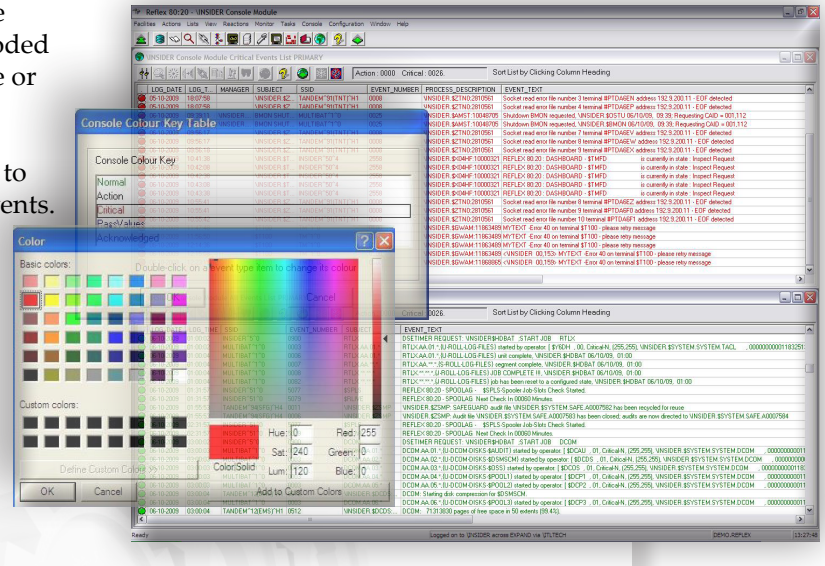
Console

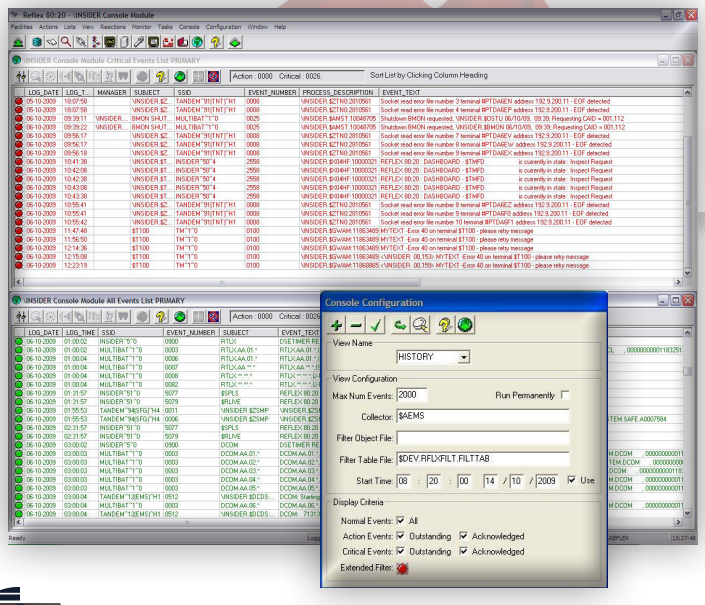
Reflex is a graphical environment where EMS events are converted into colour-coded object states and viewed in a data-centre or business context.

However, many organisations still wish to retain a flexible view of the incoming events.

To achieve this, the Reflex Console module provides an advanced upgrade for those familiar with green screen or browser EMS event viewers such as VIEWPOINT.



- *Obtain Event Token detail*
- *Create customised Console views*
- *Monitor Primary & Alternate Collectors*
- *Utilise Filter Tables*
- *Create Filtered View via GUI - no need to understand Filter development*



The events are automatically picked up by the primary window in the standard DSM filtered way. Reflex Console maintains the Information / Action / Critical model used by VIEWPOINT but ensures that critical events cannot be lost by reserving a non-roll delete window.

Multiple views can be running concurrently and any number of views can be configured.

A configuration window enables you to switch between currently configured views. For each view, the size of the rolling buffer, the type of event displayed, where they are retrieved from and if they are to be filtered in any way, can be specified.

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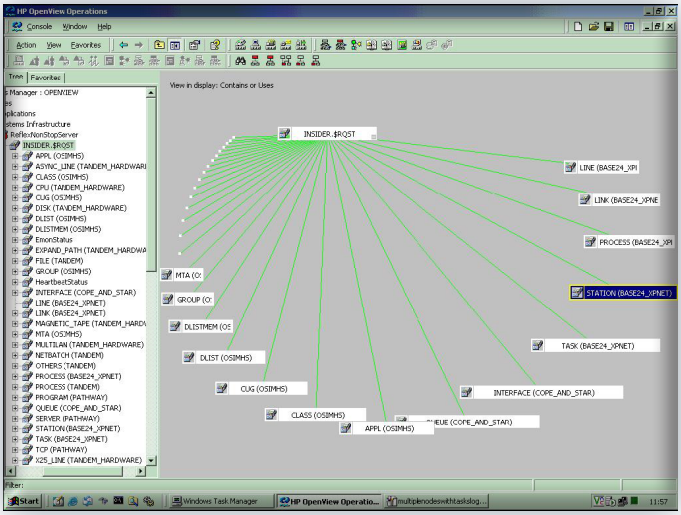
Enterprise Alerting

Escalation to key Enterprise Managers



The Reflex Enterprise monitoring Smart Plug-Ins (SPI) make use of a considerable number of Status Agents which are accessible from within the various Enterprise consoles, as well as the utilisation of event management, and Log files particular to the Enterprise.

These agents, log files and events results in alerts being forwarded to the various Enterprises via the Reflex SPI products.

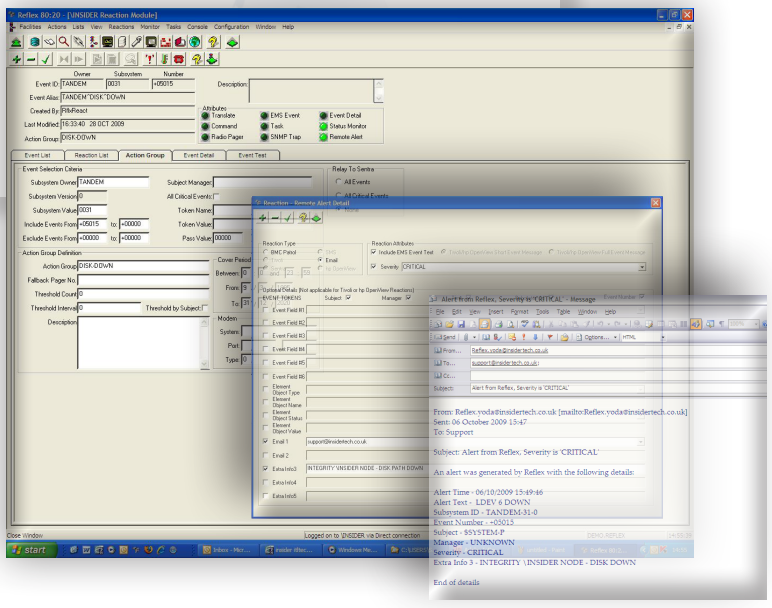
Complete end to end EMS event management is achieved, ensuring your hardware components and systems and applications are fully monitored.

- *Forward events to various Enterprise regimes*
- *Send Emails to Business & Operations*
- *Relay EMS events to SMS 24 x 7 support*
- *Include user specified information within the forwarded event*
- *BASE24 & XPNET support*

Email

In addition to forwarding alerts to the various Enterprises, Operations and Business personnel can receive email alerts, providing users with early warning of critical issues which if not resolved could have a major impact on Business processes.

The contents of the email will include the original EMS event and optionally, additional event fields which could incorporate user defined recommended resolution.



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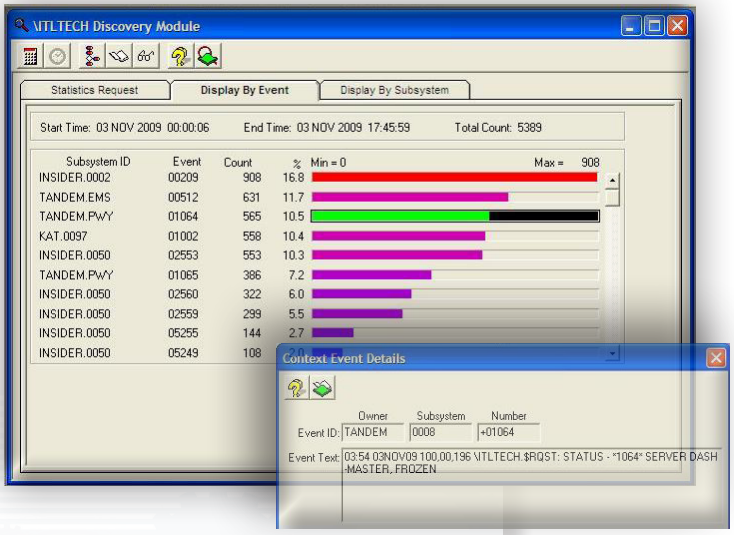
Reflex Utilities

Discovery

Several utilities are supplied with Reflex, which can be run stand-alone, via the GUI, or incorporated into the Reflex Pathway, one of which is described within this page.

Discovery enables a user to collect EMS event statistics for a specified period and from the results, you can determine how much 'white noise' is occurring on the system.

'White Noise' EMS event activity can have a serious impact on the performance of your system and your applications.



- *Bulk Database Configuration Tools*
- *Import & Export of Files, Processes, Events*
- *Disaster Recovery Utilities*
- *Audit Reports*
- *Database Reporting Tools & CSV Output*

A range of Reflex utilities can also be run via a TACL interface to enable your Reflex environments to be maintained, updated and managed.

Bulk configuration tools are also available to enable databases within multiple Reflex environments to be updated with new Processes, Files and Events that you wish to monitor.

Site-swap utilities are supplied with Reflex and Insider can analyse and advise on the best approach to implementing a Disaster Recovery and Contingency solution, which incorporates Reflex monitoring of your Production and Standby systems.

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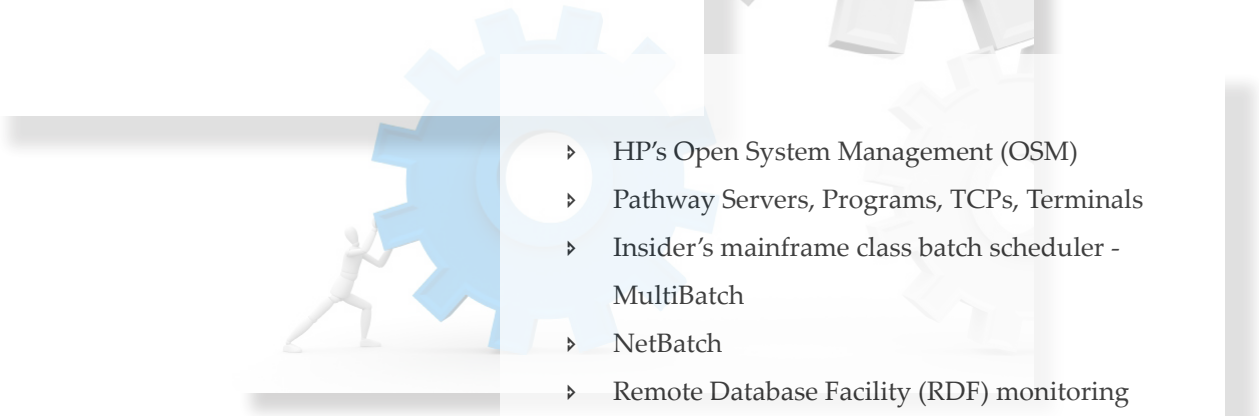
Other Benefits

Reflex HP NonStop Monitoring and Management includes the following monitoring features:

- All types of NonStop files
- File arrival from remote systems
- Monitor EMS events for your HP NonStop subsystems and your Business critical applications
- Aleri ATLAS global banking technology
- BASE24 XPNET stations, lines, processes, links and devices
- All of your HP NonStop hardware
- Clustered network nodes
- Open System Services (OSS)
- System and Business Critical Processes



- HP's Open System Management (OSM)
- Pathway Servers, Programs, TCPs, Terminals
- Insider's mainframe class batch scheduler - MultiBatch
- NetBatch
- Remote Database Facility (RDF) monitoring
- Spooler Devices, Collectors, Print and Supervisor processes
- TMF, including long running and hung transactions
- WebSphere MQ, including autodetection and status agent (Versions 5.1, 5.3 & 5.3.1.4 on OSS)
- X.25 and TCP/IP

Most of all it's about People

When big projects fail, it's usually a combination of technology and people factors.

We have a twenty-year history of building relationships and delivering projects on time and in budget, working successfully alongside teams of people at some of the largest organisations in the world. We understand the rigours of implementing projects, on-time and on-budget.

Ask our clients. They will be happy to provide a reference for what we do and what we have achieved. They will tell you that for all our success, we are small enough to be flexible and responsive.

Getting it right, is what is most important to us.

All Trademarks acknowledged