Freelance Health Check
Ensure optimal system performance for Freelance systems

Freelance Health Check provides a comprehensive evaluation of critical areas that affect system performance, including hardware, software and firmware, system and Ethernet communications, and current maintenance practices.

Benefits
– Increases control system performance, availability and reliability
– Minimizes risk of system upsets
– Lowers maintenance cost
– Improves system maintainability
– Reduces risk of component failures

Features
– System performance evaluation
– Visualization and analysis of Key Performance Indicators
– Detailed improvement plan
– Access to ABB Freelance experts

Freelance Health Check provides Freelance engineers to evaluate and test several key system areas. The analysis identifies underperforming areas and provides corrective and preventive recommendations to enhance and improve system performance and efficiency.

Revealing typical obstructions
– System overload is causing slow response rate.
– System performance degradation is not diagnosed or resolved until issues arise.
– Issues arise sporadically which are difficult to diagnose.
– Hardware devices glide slowly towards unavailability.
– Redundancy problems create single points of failures.
– System loses efficiency.
– Operational features become unavailable due to improper software installation changes.
– Security vulnerabilities occur due to obsolete Microsoft Update status

The concept in brief
Freelance Health Check is a detailed and comprehensive inspection and status evaluation of a Freelance system. It is a key service for maintaining high system availability and avoiding disruptions and interruptions in production.

The Freelance Health Check procedures have been developed on the base of long-term service experience. All tests are done during plant operation and are executed on a low priority level in order not to strain the system in operation.

Following a systematic guideline, an ABB service engineer steps through more than hundred control points in the Freelance system. Computer aided data collection and analysis is supplemented by individual inspections and audits.

Findings are compiled and after a complete analysis a report is composed. The resulting Freelance Health Check Report outlines actions that will help prevent potential problems and improve availability, reliability and system performance.

Evaluation Areas
The following Freelance system areas are inspected and validated against ABB requirements, documents and best practices.

– **Software**
  A prerequisite for a reliable system is that the software has been installed correctly. All software needed for Freelance—from the operating system to individual, specific packages within Freelance—are analyzed to ensure the proper software, updates and versions are installed. Dependencies and correlation between versions and functions are also analyzed. All software installations must follow ABB's release documents. Installation of mandatory software and matching versions on all computers are validated.

- **Hardware**

  Checks are done to identify typical hardware defects, and it is verified that all computers are properly configured and able to communicate with each other.

- **Freelance nodes**

  An automation system can consist of a large number of nodes. System performance depends on each node working flawlessly. This is validated by measuring utilization and status parameters, operating system settings, performing log file analysis and more.

- **Control system applications**

  The application programs must be configured correctly. Common configuration errors and inconsistencies are exposed, which may result in reduced availability and a "slow" system.

- **Backup**

  Status, policies and procedures for system data and computer nodes backup are reviewed. Missing backups can lead to engineering work loss and, in the worst case, production loss by extending system downtime.

- **Installation and environment**

  Hardware installation is inspected for being compliant to mounting instructions and industrial standards. Also environmental risk factors, such as vibration, humidity, temperature, dust and electromagnetic radiation are rated.

- **Freelance Controller**

  Communication to and from the controllers, CPU load, log lists, task execution and more is checked.

Findings and recommendations

Once the evaluation has been completed, a detailed report, including findings, improvement recommendations, and areas found to need further analysis is provided.

Our standardized rules for report generation guarantee an easy-to-read report. On one hand this report is addressed to top level management. It presents the key findings in an executive summary, with a result overview in traffic-light style. It provides general impact and ROI discussions and recommends actions, if required.

On the other hand the report addresses the technical specialists. It explains all findings, and provides the severity, possible impacts, detailed recommendations and document references for each of them.

Corrective services

ABB offers assistance with the implementation of improvement recommendations. ABB Local Service will present the Freelance Health Check Report to the customer in a meeting. This gives the opportunity to discuss possible Return on the automation Investment (ROI) impacts, and agree, if necessary, in an action plan to improve system reliability, availability and operational performance to its best. An ABB field service professional, experienced in Freelance operation, is available to lead improvement activities utilizing site or ABB personnel.

A maintenance service tailored to your needs

Freelance Health Check can be adapted to your individual needs and depending on your preferences. ABB local service will advise you for the best possible fitting.

ABB recommends to perform a Freelance Health Check annually as part of a regular preventive maintenance program and long-term improvement plan. These checks support customers in achieving and securing improved system performance levels.

For more information, please contact your local ABB representative:

www.abb.de/freelance
www.abb.de/controlsystems