

PRESS RELEASE

Carab Tekniva launches wireless solution for industrial maintenance

05 February, 2013: Engineering consulting expert Carab Tekniva has introduced the innovative and technologically advanced U-Fi wireless communication solution that is specifically designed to track and record maintenance and testing undertaken on power plant boilers.

The U-Fi interface is an innovative wireless communication solution developed by the Carab Tekniva Group and enables a seamless transition from the physical plant inspection to an electronically stored format.

Carab Tekniva software developer **Morné Ausmeier** explains that the system uses the in-house developed U-Fi technology, which wirelessly links the test and inspection equipment and a tough book tablet device to record measurements electronically during inspections. The populated data template can be uploaded to the Carab Plant Care maintenance management system for further evaluation and repair recommendations.

Ausmeier points out that U-Fi was tested and benchmarked against the current manually supported solution at two plants of South Africa's biggest power producer during the course of 2012, with results yielding zero data loss, while operational improvement exceeded 400 per cent.

"U-Fi enables the user to wirelessly transmit thickness readings to an MS Excel template or utilised database with 100 per cent accuracy of readings from gauge to templates. What's more, it entirely eliminates manual capturing errors, while automatically uploading inspection templates directly into the system in seconds," he explains.

According to Ausmeier, U-Fi provides total operational freedom between a thickness gauge and the workstation. "Our technology is hierarchical and plants can add hierarchies to tasks to enable risk and asset management. Further, owing to our systems, plant Engineers gain deeper insight into the precise work that has been done or still needs to be done in the entire plant," he highlights.

The Carab T module, in addition to the Carab Plant Care Maintenance management system is a management and real time progress tracking tool. It can be fully customised to the client's requirements to include all the steps needed to complete a work package. Role players are assigned to specific steps, which only allows them access to the work they need to do, thus adding another level of control.

The U-Fi module consists of a sender and a receiver unit, which communicate wirelessly for distances in excess of 100m, effectively eliminating the need for cabled communications. The receiver unit links into a portable pre-configured workstation and communicates wirelessly via the U-Fi firmware with the sender unit, which is configured for an Olympus thickness gauge(MG2-DL).

Carab Tekniva technical marketing and sales representative **Billa Pansegrouw** adds: "The sender unit is powered by a rechargeable 2200 mAh, 8.2v Lithium-ion sealed battery pack, and both units are encased in an anodised dye cast extruded aluminium case, with SAB plastic sealed end caps to minimise performance degradation as a result of dust and moisture found in most industrial environments."

To meet the specific requirements of the Carab Tekniva Group customer suite, the optimum current configuration includes an Olympus MG2-DL thickness gauge and the Algiz 7 Tough Tablet with Win 7 pro 32-bit operating system. After the thickness gauge acquires a thickness measure, the master unit initiates a request for data and stores it on the workstation.

Looking to the future, Pansegrouw notes that the U-Fi module is due to be implemented at the two power plants sites during the first half of 2013. He concludes by adding that a well known pulp and paper manufacturers has also displayed a keen interest in having the module implemented onsite too.

Carab Tekniva was officially established as a group in May 2012 following the merger of plant engineering consulting firm Carab Technologies and thermal and pressure component design specialist Tekniva. The company sets itself apart from the local competition by developing its software products in-house, thereby reducing overhead costs, while improving turnaround times related to after sales and technical support.

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Notes to the Editor

There are numerous photographs specific to this press release. Please visit <http://media.ngage.co.za> and click the Carab Tekniva link.

About Carab Tekniva

Through due diligence, the Carab Tekniva Group has developed into a multifaceted engineering solution and service provider. Founded as a design house (Tekniva) in 1999, the Group acquired a full range of engineering services, which include plant care and physical asset management, through strategic mergers, acquisitions and the recruitment of industry specialists to deliver leading edge engineering services. The Carab Tekniva Group's experience base covers both the theoretical and practical design aspects of power generation, process plants, industrial boiler and steam installations, refineries, sugar boilers and utility plants.

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