# UT News

LATEST SOFTWARE 16.12

**Leading the field in Multi Function Ultrasonic & Phased array inspection Systems**

**June-July 2007**

Dear readers,

In recent months we are sure that you have will have noticed some changes at AGR Technology Design Ltd, notably in our promotional literature. We would like to take a moment of your time to bring you up to date about these changes.

As you may or may not be aware, AGR Technology Design Ltd is part of the AGR Group and falls under the Field Operations Business unit. AGR Field Operations comprises several business units. To differentiate ourselves from other units, we will be known as

**"Ultrasonic Technologies"**

This re-branding also embraces a new logo to reflect the business unit that we belong to within the AGR Group. This will be shown as:-

As of August 1st 2007 we will be replacing the Technology Design Ltd name with:-

**"AGR Field Operations"**

Our web site address will now become www.agr.com. You can find us on the AGR website, by clicking on the Field Operations button, and then Field Operations companies. A Products Button will soon be added to the AGR website homepage. This will help you locate us quicker. In the meantime if you would like to find us on the AGR site, please follow the steps outlined in the diagram.


As we move forward under our new corporate banner, we assure you of our continuing commitment to quality, service and in creating relationships based on trust and our understanding that your needs will be met by providing some of the most innovative systems and solutions to meet your total requirements.

**We would welcome any feedback or questions you may have. Please contact General Manager Mark Clark at mark.clark@agr.com or call us on + 44 (0) 1606 590123.**

**For sales enquiries please contact Jackie Berry jackie.berry@agr.com**

**AGR.....making tomorrow better.**

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**We have had quite a response to May's 'Tip of the Month' which pointed out that corrosion mapping using video tracking is a standard feature in all instruments in our TD range of UT systems. Following this response we have decided to feature the technique in more detail this month**.

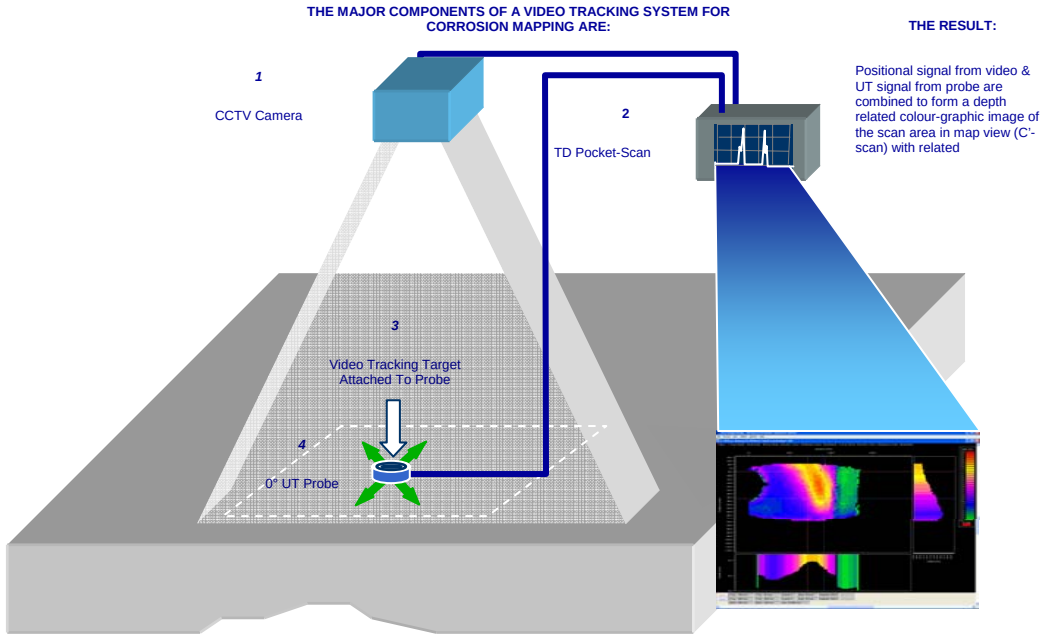
The technique of tracking a probe using video is not a new concept and was to my knowledge first used in the 1980's in the Seescan corrosion mapping system. The technique relies on the positioning of a target on the top of an ultrasonic probe used for scanning the test area and aiming a CCTV camera at the target. The target may be an infra-red L.E.D. in which case the camera is equipped with an infra-red filter or the target may consisting of a disk with concentric black and white circles printed on the surface.

The camera is connected to the UT system where the video signal is converted into an encoder signal that provides positional information. This positional information is combined with the depth information provided by the ultrasonics to present a colour-graphic image in plan view (C-scan) with X, Y & depth information. The data from which the image is generated is saved with the scan file and can therefore be used to generate other projections like side and end views giving the ability to visualise the internal topography of the test piece in three dimensions. The data can also be used to generate a 3-D image of the internal structure and I have even seen a model created in acrylic material by feeding the data into a numerically controlled milling machine.

**by Mark Nel**

From a practical point of view, this form of corrosion mapping is simple and relatively inexpensive to implement. It is a cost effective solution for both corrosion/erosion surveys as well as imaging of hydrogen blisters and damage. AGR's corrosion mapping kit is certainly far more affordable than any motorised X/Y scanner currently available on the market. Video tracking is used by many of our customers and some have built a significant portion of their business on providing services using the technique.

The image below is a graphical representation of how video tracking corrosion mapping is set up. For more information please visit out website at: www.technologydesign.com .



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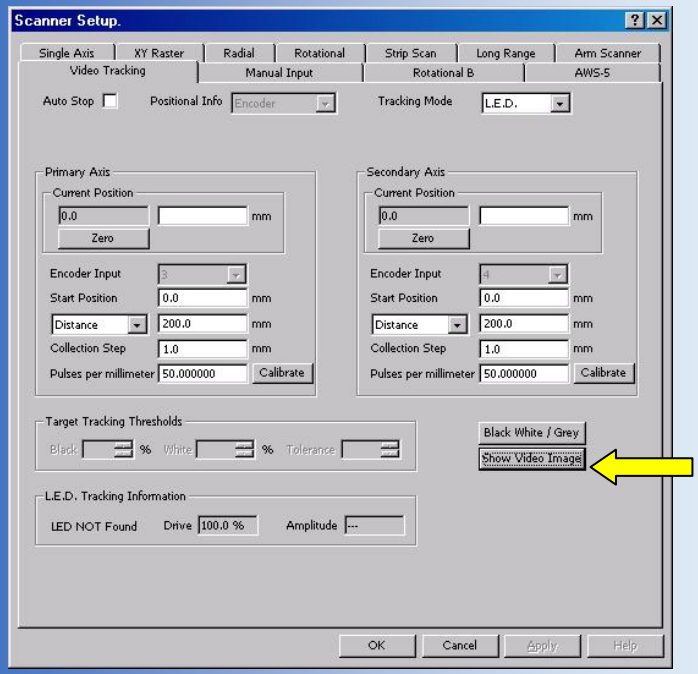
## Tip of the month

While performing corrosion mapping using video tracking, positioning of the camera in relation to the test area is made easier by activating a live video window: click the **Show Video Image** button on the **Video Tracking** tab.




**ACTIVATES LIVE VIDEO WINDOW**

**Are you missing any copies of the AGRTD Newsletter?**

**Don't fear! - Nichola can send you any copies you are missing, simply mail your request by return email. If you simply would like the Tips of the month, then a back catalogue can be sent to you.**

**Please email; nichola.jones@agr.com**


**We will be exhibiting around the world over the next few months, come and see us at the following events. We will be demonstrating our latest piece of equipment the 'TD Handy-Scan'.**

**NDT 2007**
17-20 Sept 2007
Crowne Plaza Hotel, Glasgow
**Scotland**

**IV Pan-American Conf for NDT**
22-26 Oct 2007
Panamericano Buenos Aires Hotel & Resort
**Argentina**

**4th International NDT Conference HSNT**
11-14th October 2007
CAM Chania-Crete

**ASNT Fall Conference**
12-16 November 2007
Las Vegas, **USA**

For a full list of where AGR Field Operations will be represented ,please click on the link, events