



METAOPTION

Case Study Of PicAx

About the client:

Our client based in California, US, provides a hardware and software solution used to perform visual condition assessment of underground sewer lines.

Requirement:

Condition assessment should be done by sending a remote-controlled camera through the inside of the pipeline and recording the location within the line of visual defects that could potentially lead to a failure. This could be typically performed with a specialized van or truck (TV Van) that contains the equipment necessary to drive the camera as well as to watch and record the live video of the inspection.

Our Solution:**Features Includes:**

- Image processing (GDI+)
- Video file compression
- Project export through CD/DVD Burning
- Video/Audio capture and streaming
- Voice enabled user interface.
- Inclinator device control through COM port
- SRM – Software rights management solution (software key solution for the Office module and the hardware key solution for the Van module)
- Dev Express reporting engine (which provides facility to end users to design, create and view reports at run time)

MetaOption provided solution with following features:

The software could be installed into the TV Van (either new or existing) to enable the digital capture of both the inspection video as well as the defect observations, which are entered by the operator as codes. By recording this information digitally, it becomes possible to import it into Office module to support advanced analysis of the system and identify pipelines that may be prone to failure.

The software uses state-of-the-art technology to produce the best quality output. Live inspection video is captured using the DivX®, MPEG-4, WMV and WMV9. This allows for amazingly high quality video while maintaining a small file size. The software also includes an integrated CD/DVD burner to offload inspections.

The software is designed with the goal of ensuring that condition assessment data collected in the field is always accurate and consistent. It recognizes that there is a finite number of ways a line can be accurately televised. Based on this revelation, a process is defined for appropriate inspection and an algorithm is developed to enforce it in the system.

This system examines all input from the operator and ensures not only that data is entered when required, but also that the sequence of observations fits within the constraints of an appropriate inspection. No longer will the recipient of this data need to spend hours just trying to interpret what happened during the inspection. The software ensures that the data is always clear, consistent and accurate and that the best practice for video inspection is enforced.

Statistics:

The complete project is consisting of two separate modules:

1. Van Module: This is used to do the conditional inspections and export the data after inspection.
2. Office Module: This is used for reviewing the inspections and does the analysis work with imported data from van module.

Architecture - Technology:

- C#.Net 2005, Ms Access 2003 Database
- .NET Remoting, COM+ Interoperability
- 3-tier architecture
- Operating System Windows XP and later version
- Data storage facility in XML.