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Making your TV Data Last Longer Than You Do

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Standardization of TV inspection data using NASSCO's Pipeline Assessment and Certification Program (PACP) has created many new opportunities to collect, distribute, and utilize TV data. An essential component of the PACP is the PACP Standard database that allows TV data to be exchanged among different software applications. This article discusses the PACP Standard database and its long-term significance to sewer pipeline condition management.

NASSCO realized during the early planning stages of PACP that one of the biggest obstacles to TV data management was the lack of a mechanism to share data among software programs. Very little ability existed to exchange data among different TV data vendors. In some cases the new generation of a vendor's software would not have the ability to use older versions of the vendor's own data. Moving data from a TV collection software program to a maintenance management or GIS program required a custom application and the accompanying extra costs.

To advance the ability to move TV data between vendors and applications, NASSCO developed the Standard PACP database. The PACP database was created using the MS ACCESS database program. The PACP database contains a series of tables that define how the PACP data is stored. The database contains tables for the valid PACP values for things such as material type, shape, lining method, purpose of survey, and other standard values used by PACP. The tables are related to each other to provide data validation capability. NASSCO also created a PACP Data Dictionary that defines the Standard PACP Database.

The Standard PACP Database and the PACP Data Dictionary are freely available to anyone. The purpose of the database is to provide a neutral ground to allow data to move from one application to the PACP Database and then on to other applications. The PACP Database is not a substitute for the database used by the software application. It is only a vehicle for more easily moving data from one application to another.

Another important component of the PACP is the certification of TV inspection software vendors. The vendor sends a copy of the proposed software to NASSCO and in the NASSCO office the software is checked for the required functionality. PACP certification requires that the vendor's software version implements the PACP rules correctly. Not only should the PACP codes be used, but the rules for using the codes must also be enforced fields such as clock position, percentages, value fields, etc. The proposed software can not mix and match PACP codes with non-PACP codes, since that would of course mean PACP is no longer a standard.

The first version of the PACP vendor certification requirements included the ability to export data from the application database to the Standard PACP Database. Therefore before approval, this capability had to be demonstrated. The software certification initially did not require the ability to import from the Standard PACP Database. While some vendors provided that enhanced capability others did not.

The requirement that data be exported to an industry standard database proved to be an enormous benefit to the utility industry. Utilities, engineers, and contractors were no longer dependent on software vendors to export TV data or convert the data from one form to another.

However the versatility of the PACP was hampered by the inability of some software vendors to import PACP data. Software customers found that since their vendor did not have that capability they were forced to rely on proprietary methods to import TV data from other programs, or even worse not allow collection of TV data from other software vendors because of the limitations of their software vendor.

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For that reason the current requirements of the PACP Software Certification requires the ability to import PACP data and export PACP data. This will allow PACP data from multiple software vendors to be accumulated in the utility's TV data management system over the years.

The new Version 4.2 of the PACP Standard Database also adds the ability to customize up to 10 header fields in addition to the existing PACP fields. Utilities with unique header requirements can add these fields and more easily distribute the definitions of these fields for use in other PACP software applications.

The sewer condition assessment industry has been crippled for decades by the lack of standardization. There is no better example of that than the legacy of non-standard, proprietary TV data. We were plagued in the past with TV inspection software with such limited data it could only be used within that proprietary application. The result was the sooner than later the data became orphaned as vendors, software versions, operating systems, business models and personnel inevitably changed. Despite the best intentions of vendors the reality is all software eventually will become obsolete.

The goal of NASSCO is to maintain an industry standard process for coding and storing condition assessment data that is as vendor-neutral as practical. The goal may not always be in the best short-term interest of a vendor, but it will always be in the best, short-term and long-term interest of the industry. The requirement that PACP data be exported and imported is not intended to prevent a utility from committing to a single software vendor, but it will reduce the ability of one vendor to exclude other vendors in providing PACP data.

People often ask how for how long is TV data useful. The short answer is probably forever. The long answer is as long as that pipe is in use, we will derive some benefit by knowing the past history of the structural, O&M, and construction features. Imagine how much more knowledgeable we would be if we had the ability to track the condition of sewers from the construction date through today. While we can't turn back the clock we can make the commitment to long term TV data viability so that data will be available to the utility managers of tomorrow.

Anyone using existing PACP software or considering purchasing PACP software should ask the vendor if their version of software is currently PACP Certified. The status of vendor certification can also be verified at the NASSCO website (NASSCO.ORG), or contact NASSCO directly with any questions.

We want to create an environment where the PACP data from TV inspections can be usable for decades. Today the most logical environment for that is using Microsoft ACCESS as the database. No doubt some day a new industry icon with a new way of storing data will dominate and we will go that direction. By keeping an eye on tomorrow's needs as well as today's functionality, we will have better chance of making our TV data last longer than we do.