Chapter 17

Functional Requirements – Engineering and Technical Drawings

OVERVIEW

In Chapter 3, we discussed a range of subsystem options for managing engineering and technical drawings. The most suitable system solution is the one that meets the business requirements.

This chapter extends the discussion on engineering and technical drawing management systems that we had in Chapter 3. Our objective now is to examine the functional requirements for a system to help enterprises to better manage engineering and technical drawings.

REQUIREMENTS ANALYSIS

If the enterprise is determined to proceed with the acquisition of a drawing management package, there is a diversity of scope and business needs within organizations, ranging from sites that need basic functionality to sites that need rich drawing management functionality.

Consequently, it is imperative that enterprises clearly analyze and define their requirements for drawing management, so that the organization has the best chance of acquiring a software package that meets their defined requirements. One of the first points of analysis is to determine user profiles.

When we discuss the requirements analysis phase for drawings, we will refer to “drawing management software” or express the requirement as part of an “IDCM system.” A stand-alone drawing management system or module integrated with a DMS might provide the functionality. The best technology fit will depend upon the enterprise’s business requirements.
User Profiles

When determining requirements for drawing management software, the organization needs to determine the user profiles. We need to define the number of people within the organization that create drawings, review or approve drawings, and view drawings. The definition of the user profile will help to:

- Determine the client software that might be suitable for the profile.
- Determine the costs for the licensed software.

A user profile might be prepared using the template provided in Table 1.

**Table 1: Drawing Management — Example of User Profile**

<table>
<thead>
<tr>
<th>Location</th>
<th>User Class</th>
<th>Required Functionality</th>
<th>Total Users</th>
<th>Concurrent Users</th>
</tr>
</thead>
</table>
| Drawing office    | Author           | - Use drawing templates  
--- Create drawings  
--- Create renditions  
--- Register drawings  
--- Make revisions  
--- Check-in/check-out  
--- Initiate a drawing workflow, router, or distribution  
--- Search for drawing  
--- View drawing  
--- Print drawing | 20            | 8                               |
| Engineering design | Review/approve   | - View drawing  
--- Review drawing  
--- Markup drawing  
--- Initiate/participate in a drawing workflow  
--- Approve drawing  
--- Print drawing  
--- Search for drawing | 10            | 4                               |
| Plant maintenance | View/markup      | - View drawing  
--- Markup drawing  
--- Initiate/participate in a drawing review workflow  
--- Print drawing  
--- Search for drawing | 48            | 10                              |
| Drawings administrator | Key user administration | - Maintain and manage configuration  
--- Maintain security profiles  
--- Maintain templates  
--- Create/maintain workflows | 1            | 1                               |
| IT administrator  | System administration | - Backup and recovery  
--- First line of technical support  
--- System enhancements and development | 1            | 1                               |

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