

Data Centric Safety Management using a DBMS

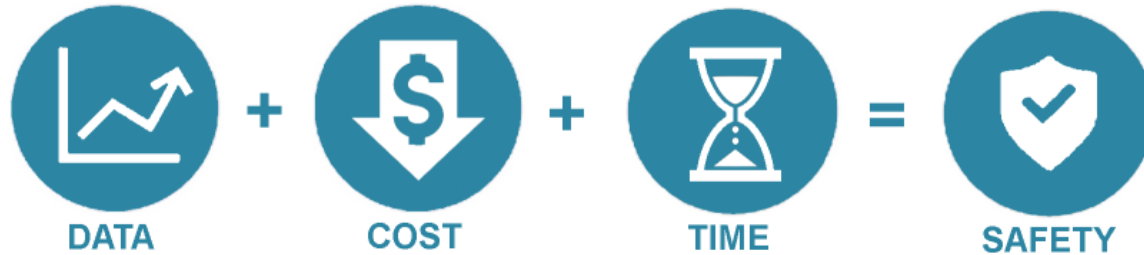


Houston Smart Instrumentation LTUF Safety Moment

FLUOR[®]

John Dressel, Fluor
Control Systems Fellow

Data Centric Safety Management using a DBMS



- ▶ Using a Database Management System (DBMS) enhances the organization of Safety records and procedures as Data
- ▶ Using a Database Management System (DBMS) Saves Money on the Cost of Maintenance of Safety records and procedures
- ▶ Using a Database Management System (DBMS) Saves Time when retrieving safety records and procedures in the event of a Safety Incident

Intellectual Property in Smart Instrumentation



Smart[©] Instrumentation

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Smart Instrumentation Governing Documents

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- ▶ Registered Trademarks referenced in Smart Instrumentation:
 - ◆ Smart Instrumentation Trademarks need to be legally Registered
 - ◆ Smart Instrumentation Trademarks Registrations are Country specific
 - ◆ Smart Instrumentation Trademarks are from Hexagon, Clients and Vendors
 - ◆ Smart Instrumentation Trademarks can be Logos or Company and Product Names

Intellectual Property and Smart Instrumentation

- ▶ Intellectual Property includes copyrights, which cover works of authorship, such as books, logos and software. It also includes patents, which protect inventions. Other types of IP include trademarks, designs and trade secrets.
- ▶ This Presentation will address the use of Smart Instrumentation (SI) when working with Intellectual Properties as follows:
 - ◆ Types of Intellectual Properties
 - ◆ Smart Instrumentation Governance Documents
 - ◆ Smart Instrumentation Logos and Service Marks
 - ◆ Smart Instrumentation Confidential and Secret Information
 - ◆ Smart Instrumentation Industrial Design Protections
 - ◆ What is not Smart Instrumentation Intellectual Property



Examples of intellectual property



▶ Examples of Intellectual Property rights include:

- ◆ Patents
- ◆ Copyrights
- ◆ Works of Authorship
- ◆ Confidential Information
- ◆ Trade Secrets
- ◆ Service Marks
- ◆ Trademarks
- ◆ Logos
- ◆ Database Rights
- ◆ Computer Software
- ◆ Industrial Design
- ◆ Design Rights

Smart Instrumentation Intellectual Property Patents



5373



1312



2207



2610

▶ 11502 – Intellectual Property Patents Granted by Field till January 2021

- ◆ 5373 – Chemistry and Chemical Engineering
- ◆ 1312 – Pharmaceutical and Biotechnology
- ◆ 2207 – Petroleum and Natural Gas Engineering
- ◆ 2610 – Mechanical and Electrical Engineering

Many of these Patents find their way into Smart Instrumentation as Patented Processes or Engineering practices

Smart Instrumentation and Copyrights



▶ Copyrighting Authorship of Original Intellectual Property

- ◆ A Copyright is granted by law for original works of authorship
- ◆ Copyright protection ensures that holders can profit from their efforts
- ◆ Copyright holders may sell, or license use the works to others
- ◆ Copyright infringement is the use of protected material without permission

Smart Instrumentation Works of Authorship



- ▶ Works of Authorship are considered Intellectual Property
 - ◆ Reports – custom reports can be considered intellectual property
 - ◆ Drawings – generated drawings are the property of the client
 - ◆ Specifications – custom smart Instrumentation spec forms
 - ◆ Computer Programs – supplemental programs created by users

Confidential information in Smart Instrumentation



▶ Protecting & Handling Confidential Information

- ◆ General Safeguarding – Restricting access or viewing from the public
- ◆ Safeguarding of Electronic Information – Using Logins and Password access
- ◆ Restricted Distribution – Restricting document and report distribution
- ◆ Non-Disclosure Agreement – Never accept Confidential Information without NDA

Smart Instrumentation and Trade Secrets



- ▶ Trade Secrets are intellectual property that are not publicly known
 - ◆ They include Formulas, Practices, Processes and Designs that are protected by:
 - Legal binding Non-disclosure agreements (NDAs) or Non-compete clauses.
 - Restricting access of key information to a few trusted individuals
 - State laws criminalizing the misappropriation or theft of trade secrets

Smart Instrumentation Service Marks



▶ Identifying Intellectual Property of Service Providers

- ◆ Service marks are brand names or logos that identify a service provider
- ◆ Service marks are intellectual property and considered an intangible asset
- ◆ Service marks help prevent the theft of intellectual property under the law
- ◆ Service marks can carry the registered symbol only if federally registered

Smart Instrumentation and Trademarks



- ▶ Trademarks are protected by intellectual property rights
 - ◆ Trademarks distinguish a Company's products from those of other companies
 - ◆ Trademarks distinguish a Product from similar products from other sources
 - ◆ Trademarks distinguish the Quality of a product referred to as a Guarantee
 - ◆ Trademarks Promote the marketing of a product by assuring ownership

Smart Instrumentation and Logos



- ▶ **Company Logos are protected by intellectual property rights**
 - ◆ Logos establish relations, and help viewers create a connection between a company and its products or documents
 - ◆ A Logo can be just an emblem, just a wordmark, or it can encompass both
 - ◆ Company or Project Logos are included on most Smart Instrumentation documents

Smart Instrumentation Database Rights



- ▶ Limited protection for Intellectual Property of Database Rights
 - ◆ Sui Generis – Unique Database Structure (Data Dictionary)
 - Proof of Substantial Investment in developing the Database Structure
 - ◆ Database Copyright – Creation of the Content (Database Tables Data)
 - Proof of Intellectual Creation in the arrangement of contents of the database

Smart Instrumentation and Computer Software



▶ Protecting Computer Software as Intellectual Property

- ◆ A Copyright protects the form in which an idea is expressed in the software
- ◆ A Patent is a twenty-year exclusive right to make, use and sell the software
- ◆ A Trade Secret is any software content that is not known by others and kept secret
- ◆ A Software License is designed to protect the intellectual property of the developer

Smart Instrumentation and Registered Design Rights



- ▶ An Industrial Design Right protects the visual design of objects
 - ◆ Graphic Designs are Intellectual Property only if they are legally Registered
 - ◆ Registration is a legal presumption and proof of ownership and validity
 - ◆ Registration in the U.S. is a basis to obtain registrations in other countries
 - ◆ Registration is the right to use the registered trademark symbol on the design

Smart Instrumentation Governing Documents

Copyright

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- ▶ Documents created by Hexagon and Users that are Copyrighted:
 - ◆ Smart Instrumentation Tutorials and Special Instructions
 - ◆ Smart Instrumentation Installation Instructions and Guides
 - ◆ Smart Instrumentation Detailed Engineering and Module User Guides
 - ◆ Smart Instrumentation User Created Implementation Practice or Procedures

Smart Instrumentation Logos and Service Marks

				INSTRUMENT SPECIFICATION		FLUOR [®]	
				Control Valve			
No.	By	Date	Revision	Code: 101	Dwg. No.: SSD-21 -FV -1A11	Sheet of	Rev.:

▶ Handling the Smart Instrumentation Project Logo

- ◆ Smart Instrumentation Project Logos are displayed on Title Blocks
- ◆ Project Logos can be a Company Logo, or a Logo created Specific to a Project
- ◆ Care should be used not to modify or distort a Registered Logo or Service Mark
- ◆ The Domain Administrator selects only one Project Logo specific to each Domain

Smart Instrumentation Confidential Information

Confidential use Agreement

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- ▶ **Protecting Confidential or Secret Information in Smart Instrumentation**
 - ◆ Confidential use Agreement statement in the Smart Instrumentation Document
 - ◆ Restrict access by placing Confidential Data in separate Unit with limited user rights
 - ◆ “Black Box” Secret Processes or Data with only limited I/O in Smart Instrumentation
 - ◆ Registration is the right to use the registered trademark symbol on the design

What is NOT Smart Instrumentation Intellectual Property



▶ Smart Instrumentation content that is NOT Intellectual Property:

- ◆ Any elements NOT Registered as Patents, Copyrights or Trademarks
- ◆ Any elements NOT specifically identified as protected Intellectual Property
- ◆ Drawings and Reports generated from Smart Instrumentation belong to the licensee
- ◆ Common work practice for inputting or editing data while using Smart Instrumentation

Intellectual Property in Smart Instrumentation

“Intellectual property has the shelf life of a banana”
~ **Bill Gates**



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