Advance Your Data Knowledge

PPDM Training Guide
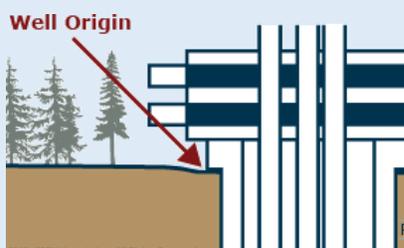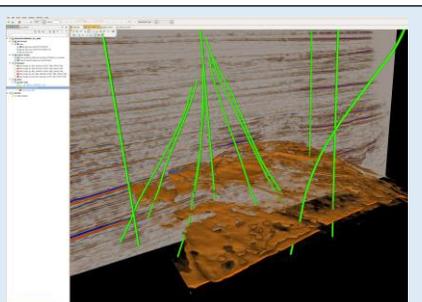
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Trudy Curtis presenting Pat Rhynes with retirement gift.

We extend our heartfelt thanks to Pat for more than 40 years of volunteer service and many years of delivering exceptional training as a Senior Instructor for the PPDM.

Welcome

Thank you for your interest in the Professional Petroleum Data Management Association (PPDM) training options. This training guide will provide you with a high-level overview of each course, course lengths and delivery options. For more detailed information on specific courses, please contact training@ppdm.org.

Who are we?

Driving better business decisions through E&P data management standards.

The Professional Petroleum Data Management (PPDM) Association is the global, not-for-profit society within the petroleum industry that provides leadership for the professionalization of petroleum data management through the development and dissemination of best practices and standards, education programs, certification programs and professional development opportunities. PPDM represents and supports the needs of operating companies, regulators, software vendors, data vendors, consulting companies and data management professionals around the globe.

Through the PPDM Association, petroleum data experts gather together worldwide in a collaborative, round table approach to engineer business driven, pragmatic data management standards that meet industry needs. Key standards include the Public Petroleum Data Model, What is a Well, Well Status and Classification, Well Identification best practices, data rules and more. In addition to the training and certification programs, PPDM professional development opportunities include conferences, trade shows, luncheons, workshops, HR support tools and student development programs.

About this Guide

PPDM course options fall under two categories:

1. **Data Management**
   - Industry Standards: Non-technical
   - Managing Location and Spatial Information
   - Well Identification and Location Systems
   - Business Processes and Life Cycles
   - Data Management

2. **Public Petroleum Data Model** - Public Petroleum Data Model courses are all related to the PPDM 3.9 and are more technical in nature.

Take this opportunity to advance your understanding of the business of data management and gain Professional Development Units (PDUs) to support your professional growth and development.
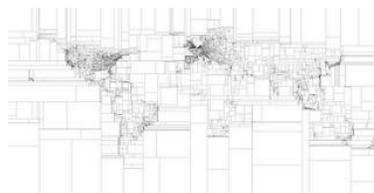
"Binary subdivision of the world", Eric Fischer. Ref. Flickr

Data Management Options

Industry Standards: Non-technical					
Course Number	**Course Name**	**Description**	**Length**	**Taught By**	**Options**
PDM-001	*Introduction to the PPDM Association*	Today's petroleum industry faces economic, social, regulatory and technology pressures that demand access to more data and better information throughout the stakeholder chain. Data and information that satisfied stakeholder needs a few years ago doesn't fit the bill today. Today's data analytics tools often languish for lack of trusted and accessible data. As the Professional Society for data managers, the PPDM Association plays a key role in meeting this need. This executive overview will provide you with a broad summary of the work of the PPDM and benefits of joining this community.	2 Hours	PPDM Association	Classroom Private
PDM-002	*What is a Well?*	In an age of integrated data, using words clearly and consistently is critical to success. This course helps you understand why and how the language used to describe various components of a well has diverged over time, which has made clear communication difficult. We'll help you navigate global semantic differences and understand the components of a well. In addition, we review the ground-breaking work done by the collaborative industry project "What is a Well" (WIAW), and the WIAW interactive tool, baseline definitions, representative diagrams, and baseline comparisons.	2 Hours	PPDM Association	Classroom Private Online Webinar
PDM-003	*Well Status and Classification*	This course arms you with knowledge about the many well status and classification systems used by the petroleum industry. We explore challenges associated with the resulting deluge of industry "status" vocabularies. We'll lay out a method for reconciling these systems into a clearly laid out faceted taxonomy using the acclaimed Well Status and Classification taxonomy. We'll show some examples of how	2 Hours	PPDM Association	Classroom Private Webinar

industry diversity in this vocabulary has resulted in plot symbol sets that are confusing and often contradictory; an alternative approach is explored.

Managing Location and Spatial Information

Course Number	Course Name	Description	Length	Taught By	Options
PDM-020	*Overview to Location and Coordinate Information*	Getting locations on a map is not quite as easy as it sounds. This is a very high-level general knowledge session that explores the importance of spatial information in the petroleum industry. This session will appeal to new and experienced managers, project managers and data managers.	2 Hours	PPDM Association	Classroom Private
PDM-021	*U.S. Land Survey Systems*	This course provides introductory knowledge of the land survey systems used in the United States - Congressional/Jeffersonian, Metes and Bounds, and the system used in Federal offshore waters. We use real-world examples in reviewing the basics of each survey system, including the differences between the Metes and Bounds survey system in the eastern U.S. and Texas. The course shows many examples of the Congressional / Jeffersonian (Township-Range) System, including some variations on how this system was first applied in Ohio.	Self-paced	PPDM Association	Online

Alberta, Naserke, Ref. Flickr (cropped)

Well Identification and Location Systems

Course Number	Course Name	Description	Length	Taught By	Options
PDM-030	*U.S. Well Spotting*	The United States Well Spotting course builds on the information introduced in the U.S. Land Survey Systems (PDM-021) course. This class provides further knowledge on complex locations, particularly those in Texas and Ohio. We focus on how a well's position is located and described, or "spotted." U.S. Well Spotting gives insight to much history that explains how the systems in Texas and Ohio evolved. We guide you through the process of placing a well on a map or locating a well that is already on a map. This course is a "must do" for anyone dealing with U.S. wells and their locations. Recommended Prerequisite: PDM-021	Self-paced	PPDM Association	Online
PDM-031	*Canadian Well Identification Standard*	The Canadian Well Identification System (CWIS) is designed by and for the petroleum industry in Canada. Its three related identifiers recognize every well, wellbore and well reporting stream. It is intended chiefly for databases and computer systems that support business processes for all stakeholders. Business processes and decisions require comprehensive and accurate information delivered in a timely manner. A standard system of coded identifiers enables a data management system to fulfill this function. With the CWIS identifiers, every data item about every well can be managed from creation to delivery to archive for the benefit of all stakeholders. The Canadian Unique Well Identifier (UWI), widely used for more than 40 years, is inadequate for managing databases of complex wells now and into the future. In the CWIS system, the UWI will be maintained to manage legacy data and systems. This class provides and overview of the Canadian Well Identification Standards (CWIS),	Self-paced	PPDM Association	Online

		aiding your understanding on how this identifier is designed for use.			
PDM -032	*Identifying Wells in Saskatchewan*	Based on the Canadian Well Identification Standard (PDM-031), this class provides additional detail related to how the CWIS system is applied in Saskatchewan. This class is intended for review by companies and organizations who conduct or have an interest in the petroleum industry in Saskatchewan.	Self-paced	PPDM Association	Online

Business Processes and Life Cycles

Course Number	Course Name	Description	Length	Taught By	Options
PDM-040	*Business Life Cycle of the Well 1.1: Introduction*	The life cycle of wells can be decades long and encompass complex business processes involving many stakeholders. Stewarding data for all stakeholders requires a clear knowledge of these processes and how they interrelate. This course provides a general overview of the business life cycle of the well within the petroleum asset life cycle, based on a simple five-stage life cycle (planning, drilling, completing, producing, and disposing). This course is directed at organizational analysts, business analysts, enterprise architects, solution architects, and information technology personnel who require an overview of the primary business phases and business processes within the petroleum industry. We focus on business processes, using an operating company as the basis.	Half-day	PPDM Association	Classroom Private Online
PDM-041	*Business Life Cycle of the Well 1.2: Data Management*	Builds on the Business Life Cycle of the Well 1.1 by incorporating an overview of the data created in or used by each of the life cycle stages, key data movements, and essential data management challenges. The course is directed at data architects, data governance specialists, organizational analysts, business analysts, enterprise	1 Day	PPDM Association	Currently Under Construction

		architects, solution architects, and information technology personnel who require an overview of the primary business phases and business processes, and how they relate to data and data governance within the petroleum industry. Recommended Pre-requisite: PDM-040			
PDM-042	*Business Life Cycle of the Well 2.0: Life Cycle Details*	This class expands on the "Introductory Business Life Cycle of the Well" class, providing an in-depth review of the processes, sub-processes and activities throughout the well life cycle. The course is directed at data architects, data governance specialists, organizational analysts, business analysts, enterprise architects, solution architects, and information technology personnel who require good knowledge of the detailed business phases and business processes, and how they relate to data and data governance within the petroleum industry. We focus on business processes, using an operating company as the basis. Pre-requisite: PDM-040	2 Days	PPDM Association	WebEx Currently Under Construction

"Oil well pump jacks", Richard Masoner, Ref. Flickr

Data Management

Course Number	Course Name	Description	Length	Taught By	Options
PDM-060	*Introduction to Master Data Management*	Increasingly, the petroleum industry is focused on integrated life cycle asset management systems that bring together critical information from many disciplines over the decades long asset life cycle. Master data management solutions are designed to help define and manage critical data about assets to provide, through harmonization and data integration, a single point of reference. This class reviews fundamental master data management principles including: data governance, data architectures, master data, data quality and the life cycle of data in the business. The class covers, at a high level, how the PPDM data model supports master data management concepts.	Half-day	PPDM Association	Classroom Private
PDM-061	*Introduction to Data Governance*	In development - Sponsorship Needed to Complete		PPDM Association	Currently Unavailable
PDM-062	*Introduction to Data Quality*	In development - Sponsorship Needed to Complete		PPDM Association	Currently Unavailable
PDM-063	*Introduction to Data Architecture*	In development - Sponsorship Needed to Complete		PPDM Association	Currently Unavailable
PDM-064	*Petroleum Data Management Overview*	Customized		PPDM Association	Classroom

Downtown Calgary – Chinook, Naserke, Ref. Flickr

Public Petroleum Data Model Options

Public Petroleum Data Model Version 3.9					
Course Number	Course Name	Description	Length	Taught By	Options
DM39-001	*PPDM 3.9: Compliance*	This session provides an overview of the compliance process at the PPDM Association, designed to help implementation teams prepare for a compliance measurement. This course will appeal to software developers who seek compliance or operating companies who are seeking a PPDM compliant software product.	1 Hour	PPDM Association	Classroom Private
DM39-002	*PPDM 3.9: Data Model Overview*	Designed by hundreds of industry experts to manage the data and information created and used to manage the E&P life cycle from the perspectives of many disciplines and stakeholders, the PPDM Data Model is an excellent vendor neutral master data management repository. Taught from the perspective of industry business processes, this class shows how the data model supports a wide range of business processes from the perspective of both operators and regulators.	Half-day	PPDM Association	Classroom Private
DM39-003	*PPDM 3.9: Implementation Head Start*	Both robust and comprehensive, the size and complexity of the PPDM Data Model can pose an intimidating challenge for implementation teams. The foundation to understanding how to deploy the data model is embedded in the design principles that underlay the structure. This knowledge will help technical teams leverage the data model to achieve its potential as a master data store. Practical recommendations for implementation will give your technical team a powerful head start in getting the most out of this internationally acclaimed data standard. This class is designed for technical implementation teams to understand the foundational architecture of the data model	Half-day	PPDM Association	Classroom Private Online

		that will support correct implementation practices.			
DM39-004	*PPDM 3.9: PPDM Data Management and Reference Lists*	The data management subject area in PPDM 3.9 provides a practical toolkit to support data management and data governance. Topics covered include data system and software inventories, data mapping, reference lists, data metrics, quality control and provenance, authorization and entitlements and, of course, reference lists. We will review the value of the Data Management (formerly called the meta model) subject area and how to effectively use the model and provide an overview of both standard and dynamic reference tables. Understanding this subject accelerates a working team's ability to effectively and appropriately use the PPDM Data Model.	Half-day	PPDM Association	Classroom Private
DM39-005	*PPDM 3.9: Samples and Sample Analysis*	Sample collection, storage and usage information is critical to ensuring that technical analysis data can be properly used by geochemists, paleontologists and other scientists. The sample analysis subject area in PPDM fully describes the methods used for sample preparation, treatment and analysis. Within this context, the results captured can be contextualized for appropriate correlation and analysis. Validation and verification sections of the data model help ensure that data is trusted and falls within reasonable bounds. This course describes the Samples and Sample Analysis subject areas of the PPDM 3.9 Data Model.	Half-day	PPDM Association	Classroom Private
DM39-006	*PPDM 3.9: Seismic*	Seismic can be conducted on land or offshore. Recording may be two dimensional (linear) or three dimensional (polygonal). 4D (time variant) seismic surveys may be conducted in specific areas many times over a period of years to study and understand how a reservoir is being depleted through production. Each phase of the exploration life cycle is intensively data driven. Permanent records	Half-day	PPDM Association	Classroom Private

		detailing the processes and technology applied, observations and results are retained. Suitable cataloguing practices must be employed to ensure that this data asset is managed for the future. This course covers the PPDM 3.9 Data Model Seismic subject area for all stages of the life cycle for seismic sets, locations, acquisition, processing, interpretation, and transactions.			
DM39-007	*PPDM 3.9: Well Data*	Wells are the most fundamental asset of the petroleum industry, because they provide the mechanism for extracting raw hydrocarbons from subsurface reservoirs. Hundreds of millions of dollars are expended to create and use data before, during and after well construction. Managing this information effectively and making it available to analytics tools is critical to industry safety and success. This session will provide a high-level overview of the well subject areas in PPDM 3.9 through life cycle processes in oil and gas.	Half-day	PPDM Association	Classroom Private
DM39-008	*PPDM 3.9: Well Test and Production*	Today, production management and optimization are significant opportunities for improving well site efficiency and profitability. This class covers the well test and production reporting subject areas in PPDM 3.9. It shows how the data model can be used to capture details about any well asset, any product, for any process and any time frame necessary for analysis. Production accounting is not covered but production allocation is briefly described.	Half-day	PPDM Association	Classroom Private
DM39-009	*PPDM 3.9: Well Logs*	In this course, you learn how PPDM 3.9 can be used to manage information about well logs and curves, operational logging details, and how to catalogue what logging data is available. You will discover how the PPDM Data Model can be used for mnemonic dictionaries to index digital, raster logs and paper and curves, describe formats, physical storage locations,	Half-day	PPDM Association	Classroom Private

		and much more. This course is focused on the data model.			
DM39-010	*PPDM 3.9: What's New in PPDM 3.9*	This session provides an overview of the key differences between PPDM 3.8 and PPDM 3.9. Designed for those who are considering upgrading their version of the PPDM Data model, or who are considering vendor products that use different data model versions.	Half-day	PPDM Association	Classroom Private
DM39-011	*PPDM 3.9: Reporting Hierarchies*	Designed primarily to support aggregated reporting, such as corporate production reporting or reserves forecasts, this module allows users to create formal or informal reporting hierarchies. Hierarchies may also be simple or complex, temporary or permanent. Generalized structure templates for each hierarchy are defined by the user. Once that is done, each template may be used as many times as necessary for reporting purposes. This class will cover how the Reporting Hierarchy subject area in PPDM 3.9 works and is integrated with production and other subject areas in PPDM. This course is focused on the data model.	Half-day	PPDM Association	Classroom Private
DM39-012	*PPDM 3.9: Location and Coordinate Information: Areas*	Named areas are simply geographic areas that a company may wish to track for a variety of reasons. These areas could be geopolitical, jurisdictional, operating areas, project areas, or mapping areas. The model allows you to capture a description of the area; this is commonly used where an area is used for scientific research and a Lithologic or visual description is important. Join this class to learn how location and spatial information is managed in the *Areas* subject of PPDM 3.9. This course is focused on the data model. **Recommended Prerequisites:** PDM-003; PDM-020	Half-day	PPDM Association	Classroom Private
DM39-013	*PPDM 3.9: Location and Coordinate Information:*	Geographic or cartographic references to locations are an important component of any database that requires the ability to be output as a map or spatial object. The geodetic	Half-day	PPDM Association	Classroom Private

	Coordinate Reference Systems	module allows all coordinate or location information to be correctly referenced to a fully described coordinate system. Geographic and mapping coordinate systems are defined in this module to support use of many coordinate systems in PPDM. Guidelines for use of location information recommend that locations be given primarily in geographic references (latitude and longitude) with additional references provided based on business and technical requirements defined by the implementation team. As with units of measure, relational databases perform most satisfactorily when all coordinates provided are referenced to the same coordinate system. This session will explore how location and spatial information is managed in the *Coordinate Reference System* subject of PPDM 3.9. **Recommended Prerequisites:** PDM-003; PDM-020			
DM39-014	*PPDM 3.9: Location and Coordinate Information: Spatial Descriptions and Land*	Spatial location information in PPDM is supported at numerous levels. First, locations are versionable: this allows business users to manage the original configuration of a land holding or pool description, its present configuration and predict future configurations efficiently. Second, spatial descriptions may describe the surface only; describe stratigraphic regions included in the spatial description and even indicate specific substances included in that description. These descriptions are versionable over time. Finally, spatial descriptions can be described in geographic terms using latitude and longitude or other mapping system coordinates, with references to local survey systems or using a simple text-based description. The Land Rights Module is designed to provide and manage information related to the acquisition, description, administration, management and relinquishment of the land assets and rights obtained by an energy	Half-day	PPDM Association	Classroom Private

company, individual, or government body through purchase, lease or agreement. Data related to title ownership and subsequent issuance of agreements that grant access to a "bundle" of mineral rights for a specified timeline is addressed by PPDM. A bundle of rights may include one or many substances in one or many zones (formations) and may be constrained by specific exclusions of a substance or zone. The surface rights subject area addresses a portion of data related to surface title ownership and subsequent issuance of agreements that grant access to the surface for a specified time, to conduct exploration and production operations. Surface access is not inherent with the acquisition or ownership of the mineral rights and is granted through the negotiation and issuance of separate agreements or consents between individuals, companies or government bodies and agencies. More than one agreement or consent may be required to acquire and retain access to the surface occupied by a production facility. Compensation is required for loss of use, adverse affect, nuisance, and personal property damages. Adherence to financial, operational and reporting requirements is administered pursuant to terms and conditions of an agreement or legislated governmental acts, regulations and/or policies. Eventual relinquishment of these rights must be completed in accordance with terms that are set and enforced by regulatory or legal authorities.

This class covers how location and spatial information is managed in *Spatial Descriptions* and *Land Management* subjects of PPDM 3.9.

Recommended Prerequisites: PDM-003; PDM-020

DM39-015	*PPDM 3.9: Location and Coordinate Information: Wells*	Well locating can be complex and challenging. Locations change during planning and construction and are often given in many different coordinate reference systems or mapping projections. They can be referenced	Half Day	PPDM Association	Classroom Private

to legal survey markers and can contain depth references. In different regions, locations may refer to different components of the well configuration. This class covers many of the complexities related to locating wells and managing that information in the PPDM data model.

This session will explore how location and spatial information is managed in the *Wells* subject of PPDM 3.9.

Recommended Prerequisites: PDM-003; PDM-020

DM39-016	*PPDM 3.9: Location and Coordinate Information: Seismic*	Seismic information can be challenging to manage. Often, location files contain point designations that are difficult to represent on maps or other displays. Locations may refer to real or projected positions on the surface of the earth or in the sub surface. This class reviews some of the key complexities that exist in seismic location information, and how this information is managed in the PPDM 3.9 data model. **Recommended Prerequisites:** PDM-003; PDM-020	Half-day	PPDM Association	Classroom Private
DM39-017	*PPDM 3.9: Custom Training*	Provided by experienced data model architects to help in-house team understand any parts of the data model required for a planned project.	Customized	PPDM Association	Private

Sponsorship Opportunity

If you do not see the course your team needs in our catalogue or it is currently under construction, you may want to consider becoming a course sponsor.

We invite you to learn more about this compelling opportunity by contacting training@ppdm.org.

> **COMING SOON** – PPDM Online Professional Development Catalogue
>
> *A one-stop shop to access your global petroleum data management training options.*

Thank you for choosing PPDM Training.

Here's a look back at 2018...