Paradigm Online University is Paradigm’s Web-based eLearning tool, designed to allow customers to create a personalized training portfolio of Paradigm courses. Students can customize their learning environment and study at their own pace, anytime, anywhere.

Paradigm Online University enables users to improve their Paradigm skill set according to their preferred learning style, for dramatically increased productivity and result accuracy.

About our courses

Our flexible eLearning courses utilize an array of techniques adapted to the different ways adults learn:

- Videos, for those who learn by listening and watching
- Workflows, for those who learn by seeing and reading
- Hands-on exercises, for those who learn by doing
- Quizzes that measure comprehension and retention
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Note  The duration stated for each eLearning module is an estimate based on our testing group. It may take you longer or less time to complete a module.
Getting Started in Paradigm Online University

All customers and University Partners participating in the Paradigm maintenance and support program have free access to the wealth of training content offered by Paradigm Online University.

To access Paradigm Online University

2. Click the Log In | Sign Up button in the upper right hand corner.
3. Click on the Paradigm Online University button or click on Paradigm Online University in the menu on the right.

Any questions or comments? Please contact elearning-support@pdgm.com.

To enroll in a course

Once logged in to Paradigm Online University:

1. Click on Online Training and browse through the course catalog.
2. Click the Enroll button to enroll into the desired course.
3. Click the Open button to view the items in the course.
4. Click the Launch button that appears near the desired course.

Notes

- You can enroll in several courses in the catalog prior to opening a course.
- The courses in which you have enrolled can now also be launched from your My Courses page.
- Watch the Welcome to Paradigm Online University video for more information.
Paradigm Online University product eLearning, workflow, and video course catalog

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Figure 1-1  Paradigm Online University product eLearning, workflow, and video course catalog
## EarthStudy 360

### Seismic Processing and Imaging

**EarthStudy 360**

### 5D Local Angle Domain Gathers as an Ideal Representation for Directivity Driven Imaging

*After a brief introduction, the author covers these topics in this presentation that is based on a workshop given at EAGE 2015: The imaging method and system, visualization of local angle domain (LAD) gathers (3D and 5D), and analysis of LAD gathers. He discusses two field cases, Australia Offshore and Eagle Ford Shales. This is followed by a summary and extensions.*

*Duration: 28 minutes*

### The EarthStudy 360 System

*In this 46 minute video Zvi Koren, Paradigm’s CTO, introduces the Paradigm® EarthStudy 360® system. He begins by discussing the general objectives of the EarthStudy 360 system: Maximizing and enriching information from the available recorded seismic data for optimal velocity model determination and reservoir positioning, and enhanced reservoir characterization. He then gives a detailed overview of the components of the EarthStudy 360 system: ES 360 Migration, ES 360 Visualizer, ES 360 Illuminator, ES 360 Processor/Imager, ES 360 Tomography, and ES 360 Inversion QSI.*

*Duration: 46 minutes*

### CRAM/EarthStudy 360 Imager Basic Training

*CRAM is the basic mode of EarthStudy 360. The objective of the course is to enable the student to gain an understanding of the concept upon which the EarthStudy 360 (ES360) migration is based. Learn about the types of outputs generated and their difference to other migration schemes. Gain a clear idea of the basic steps that make up the EarthStudy 360 migration. Learn how to set-up and run a default migration and understand how the more commonly changed parameters work. Learn how to monitor the run and about basic diagnostics. This course consists of three videos.*

**Overview of CRAM**

*Duration: 17 minutes*

**Components**

*Duration: 26 minutes*

**Run Logging, Diagnostics, and Fault Tolerance**

*Duration: 13 minutes*
Echos

Seismic Processing and Imaging

Constrained Velocity Inversion in Echos, Paradigm 15

This video introduces you to Constrained Velocity Inversion (CVI), which is now available to Echos users in Paradigm 15. CVI is designed to create regular, smooth and physically credible velocity models from sparsely sampled vertical functions, or to update existing velocity models using residual moveout information.

Duration: 4 minutes

Echos Infrastructure in Paradigm 14

This video reviews some of the infrastructure improvements for Echos users in Paradigm 14, including Epos CDP-CMP grid implementation, changes to geometry modules and trace header nomenclature, and plotting output.

Duration: 4 minutes

Frequency Enhancement using Paradigm Echos in Paradigm 2011

This video shows how to perform frequency enhancement in Paradigm 2011 to increase the resolution of your seismic data by enhancing higher frequency details. This enables you to better define small-scale features and perform more accurate seismic characterization analysis.

Duration: 3 minutes

Introducing the Velocity Navigator in Echos Paradigm 15

This video introduces you to the Velocity Navigator, which is now available to Echos users in Paradigm 15. The Velocity Navigator combines 2D and 3D model-based isotropic velocity analysis tools and seismic display capabilities in order to perform multi-domain velocity analysis, model building and updating, and seismic imaging, all within a single application window. Echos users now benefit from both Time and Time Migrated domain interactive and batch velocity and residual analysis, as well as Constrained Velocity Inversion, Gather Processing and 2D Kirchhoff Prestack Time Migration.

Duration: 7 minutes

Getting Started with Echos in Paradigm 14

This video introduces you to Echos in Paradigm 14, including how to launch Echos applications and Epos utilities from the new Paradigm Session Manager and how to create new surveys.

Duration: 3 minutes

Enhanced Usability in Echos and GeoDepth, Paradigm 15.5

Paradigm continues to develop usability and performance enhancements that will benefit users of Echos and/or GeoDepth. This video discusses improvements to Echos and GeoDepth, and is aimed at existing users who have just upgraded, or are about to upgrade, to Paradigm 15.5.

Duration: 8 minutes
## Workload Management in Echos in Paradigm 14

This video discusses the enhancements to workload management in Echos, in particular the new Seismic Job Cloner utility in Paradigm 14 and improvements to the Job Submit tool and Seismic Job Performance Monitor.

*Duration: 5 minutes*

## Broadband Deghosting Solutions in Echos

Broadband processing aims to recover the full range of the seismic signal for higher definition imaging. Improved handling of low frequency components provides clear imaging at depth and improved stability and confidence in subsequent seismic inversion. This course consists of two videos:

Deghosting in Echos, Paradigm 14.1 and above explains how ghost reflections are generated and why it is important to perform deghosting, or ghost removal. This video demonstrates the benefits of using GHOSTX in Echos, and teaches you how to use this module in order to rapidly obtain ghost-free seismic data.

*Duration: 7 minutes*

A Robust Broadband Deghosting Procedure for High Resolution Outcomes, Paradigm 15.5 explains the methodology behind our deghosting solution in more detail and compare the results to different acquisition techniques. The implementation of time-variant deghosting in Paradigm 15.5 is also discussed.

*Duration: 20 minutes*
Epos Data Management and Interoperability

**Epos Data Management and Interoperability**

**Epos Loading and QC of 3D Post-Stack Data in Paradigm 2011 - Epos 4.1.**

This course teaches the student how to load a standard SEG-Y format 3D Post-Stack dataset into Epos. Structure of SEG-Y format, loading parameters and their meanings, output parameters and their meanings, and how to look at the SEG-Y headers and data before loading are discussed.

In addition, QC methods to determine if the volume was loaded properly are described. A generic data loading format is provided in a printable format. These topics are covered with a mixture of video, text, and simulations to work through and a test at the end to help students decide if they really understand the process.

*Duration: 30 minutes*

**Loading Well Data in Epos**

Data loading is one of the most critical steps in any interpretation project. It is important to know what data to load, how to load it into the Epos database, and how to QC the data to make sure it is correct. This interactive, 60 minute course teaches an easy workflow for creating an Epos project and well database, loading the well data, then reviewing the data for quality assurance.

Download the dataset provided and follow the exercises to learn how to import well data using the ASCII Import utility. Well data in this course includes well parameters, deviation survey logs, and well markers. Important concepts, such as selecting the appropriate format file, understanding well parameters and well datum elevations, and marker activity help each learner understand the available options and when to use them. A final QC of the data in the Well Data Manager, BaseMap, and 3D Canvas allows learners to confirm the accuracy of their loaded data. This course has corresponding manuals that can be downloaded and used for future reference. Register now and learn how to get your data loaded correctly and your project off to a great start.

*Duration: 60 minutes*

**Managing Well Data in the Well Data Manager in Paradigm 14**

Learn about creating and managing well lists and activating well data using the Well Data Manager, a Paradigm utility that enables you to manage well data for a large number of wells at once, facilitating your work with products such as SeisEarth and StratEarth.

*Duration: 6 minutes*

**OpenGeo in Paradigm 14**

OpenGeo Documentation Changes introduces the changes to the OpenGeo documentation for the Paradigm 2014 release.

*Duration: 4 minutes*

OpenGeo What's New describes the new features of OpenGeo in the Paradigm 14 release. This includes information about the OpenGeo SDK and release notes.

*Duration: 4 minutes*
## Epos Data Management and Interoperability

### OpenGeo in Paradigm 15

This Video Learning course consists of four videos that describe several features of the OpenGeo Development Kit in Paradigm 15. It shows how to access OpenGeo documentation, how to obtain information about data models, how to identify and navigate to the library or API of interest and how to build and run the Epos OpenGeo examples in both Linux and Windows environments.

**Accessing OpenGeo Documentation** explains how to access the OpenGeo documentation in Linux and Windows.

*Duration: 3 minutes*

**Accessing OpenGeo Data Model Documentation** explains how to access information about the Epos data model in the OpenGeo documentation.

*Duration: 5 minutes*

**Navigating OpenGeo Libraries** describes how to find the library and API of interest to be used for OpenGeo.

*Duration: 4 minutes*

**Building and Running OpenGeo Examples** shows how to build and run the examples for the OpenGeo package and where to view the expected output when those examples are run.

*Duration: 9 minutes*

### Seismic Compression Roaming

Paradigm Seismic Compression Roaming is a new utility in Paradigm 15.5 which compresses large poststack seismic files to save disk space, improve network speed and maintain full precision seismic for interpretation and analysis. These videos cover a live demonstration of the utility as well as some basic marketing essentials (what it is, why you need it). They show how to create compressed volumes, how Epos handles the compressed data and also analyze the results of the compression against the original data by looking at difference volumes and extracted attributes.

**Overview**

*Duration: 4 minutes*

**Demo**

*Duration: 9 minutes*
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<td><strong>Working with JavaSeis Files in Paradigm 14.1</strong></td>
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<tr>
<td><em>JavaSeis is a data storage format widely used to support large scale parallel computation and I/O. This video explains how to register JavaSeis files in the Seismic Data Manager and then display JavaSeis data within other Epos applications.</em></td>
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<td><em>This user guide introduces basic concepts and terminology. It provides an overview of an Epos project, survey, well database, culture database, data models, and data managers. Use your own dataset to go through the manual.</em></td>
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<td><em>Duration: 2 hours</em></td>
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Explorer

**Interpretation and Modeling**

**Horizon and Seismic Depth Conversion Paradigm 2011.3**

This course discusses vertical scaling and migration techniques, in particular how they are used to transform both horizon and seismic data from time to depth. Students will learn how to use Map Scaling and Map Migration, for time to depth conversion of interpretation data, as well as Global Seismic/Attribute Scaling, for transforming seismic amplitude volumes to depth. This course also demonstrates the benefits of Paradigm’s visualization tools for comparing output results from scaling and migration methods.

*Duration: 30 minutes*

**Velocity Modeling and Depth Conversion with Crossplot in Paradigm 2011.3**

In this course students learn about Crossplot-based depth conversion and Midpoint depth conversion. Students use Paradigm’s Crossplot utility to perform time-depth analysis, define relationships and depth convert maps. This course discusses how to back-calculate interval velocities and perform mistie analysis, to QC and increase confidence in depth conversion results. Students also learn about the benefits of normalizing velocities for depth conversion.

*Duration: 30 minutes*

**Velocity Modeling and Depth Conversion with V0, K in Paradigm 2011.3**

In this course students learn about V0,K and its role in velocity modeling and depth conversion. This course discusses when to use V0,K and covers simple V0,K estimation as well as the Linvel method. Students will use Paradigm's BaseMap, Crossplot, and Vertical Functions applications to identify vertical velocity gradients, using well markers, well logs and seismic interpretation data as input, and then use derived V0,K information to create depth grids.

*Duration: 60 minutes*
Global Velocity Model Building in Paradigm 15 and above (Video and Tutorial)

This course consists of one high-level overview video and one tutorial which cover global velocity model building in Paradigm 15 and above.

The video presents an overview of the new Global Velocity Model-Based Time/Depth Conversion utility in Paradigm 15. This utility significantly simplifies and/or replaces a number of steps in velocity modeling workflows, while providing an easy, flexible, and robust way to define a global velocity model and QC it on the fly using a preview option in 3D Canvas. After saving the global velocity model you can use it in a number of workflows, including velocity volume creation, scaling seismic data and domain conversion of well data.

Duration: 5 minutes

The brief tutorial teaches basic steps in creating and using horizon based Global Velocity Models: Open horizons, set velocity parameters, preview model in 3D Canvas, save model, and use it for scaling interpretation data. The tutorial is not accompanied by audio.

Time Preserving Model-Based Tomography in Paradigm 15 and above

Available to both Explorer and GeoDepth users, Paradigm’s Time Preserving Model-Based Tomography provides an innovative approach to velocity model updating, by incorporating well marker information into the tomographic process, in order to create geologically-tied, refined velocity models.

In the first video, you are introduced to Time Preserving Model-Based Tomography, and how it can be used in an example isotropic workflow in Paradigm 15.x.

Duration: 11 minutes

In the second video, we discuss the use of Time Preserving Model-Based Tomography to update anisotropic velocity models in Paradigm 15.x.

Duration: 10 minutes
GeoDepth

Seismic Processing and Imaging

Constrained Velocity Inversion in Paradigm 2011

The Constrained Velocity Inversion course consists of four modules that teach students how to use CVI in Paradigm 2011. In the first module students are introduced to the theory behind CVI and the benefits of using CVI to build and update velocity models. The second module teaches how to create initial velocity models with CVI. In the third module students learn how to update velocity models with CVI. The fourth module teaches how to interpolate or decimate attribute volumes with CVI.

Duration: 120 minutes

Velocity Model Building and Imaging in Paradigm 2011

Introduction and Common Usability Improvements for Velocity Model Building and Imaging in Paradigm 2011

The Velocity Model Building and Imaging in Paradigm 2011 course consists of six modules which cover new features and functionality for GeoDepth users. This module is an introduction to the Velocity Model Building and Imaging in Paradigm 2011 course and covers common usability improvements in Epos.

Duration: 30 minutes

Velocity Model Building and Imaging in Paradigm 2011

In the first module students learn about the new features and functionality in the Velocity Navigator. The second module introduces students to the new features and functionality in CVI and FastVel. The third module teaches how to perform interactive ray tracing in Paradigm 2011. In module number four students learn about the new features and functionality in Imaging applications. The fifth module introduces students to pre-stack visualization in Paradigm 2011.

Duration: 150 minutes

Velocity Model Updating with 3D Grid Tomography in Paradigm 2011

Introduction and Common Usability Improvements for Velocity Model Updating with 3D Grid Tomography in Paradigm 2011

The Velocity Model Updating with 3D Grid Tomography in Paradigm 2011 course consists of six modules which cover new features and functionality for experienced GeoDepth users. This introductory module provides an overview of the entire course and teaches GeoDepth users about common usability improvements in Epos.

Duration: 30 minutes
# Introduction and Common Usability Improvements for Velocity Model Updating with 3D Grid Tomography in Paradigm 2011

In this first module of the Velocity Model Updating with 3D Grid Tomography in Paradigm 2011 course students learn about the new features and functionality in Structural Attributes in Paradigm 2011. The second module introduces students to the new features and functionality in Create Pencils. In the third module students learn about interactive ray tracing in Paradigm 2011. Module number four in this course provides an overview of the new features and functionality in 3D Grid Tomography. In the fifth module students learn about pre-stack visualization in Paradigm 2011.

Duration: 150 minutes

## 3D Tomography in Paradigm 14

This video reviews the new features in both 3D Grid and Model Based Tomography in Paradigm 14, including infrastructure developments, structural smoothing enhancements, and the introduction of QC Residual Moveout (RMO) Attributes.

Duration: 4 minutes

## Anisotropic Velocity Parameters in Elastic Layered Media: Lecture Series by Zvi Koren

This lectures series by Dr. Zvi Koren, Paradigm’s CTO, entitled Anisotropic Velocity Parameters in Elastic Layered Media – Instantaneous and Local/Global Effective Parameters: Basic Theory, Data Types and Standards consists of five videos. Each video is accompanied by a PDF file for viewer download.

Introduction

Duration: 42 minutes

Wave Propagation in Anisotropic layered Media (To be released at a later date)

Azimuthally Isotropic Velocity Models (ISO and VTI) - Velocity Analysis and Updating with effective Model Parameters

Duration: 36 minutes

Piecewise-Continuous Velocity Inversion

Duration: 34 minutes

Azimuthally Anisotropic Velocity Models

Duration: 63 minutes

## Full Azimuth Illumination Highlights in Paradigm 14 - Part 1

This video introduces you to some of the enhancements to Full Azimuth Illumination in Paradigm 14, including updates to 3D CRP Ray Tracing and new features in 3D Canvas, in particular ray attribute display and ray fan filtering and improvements to Interactive Ray Tracing. This video is the first of a two-part series about Full Azimuth Illumination and is followed by a separate video concerning updates specific to the Illuminator Window.

Duration: 7 minutes
Full Azimuth Illumination Highlights in Paradigm 14 - Part 2
This video introduces you to some of the enhancements to Full Azimuth Illumination in Paradigm 14, in particular the new Illuminator Window. In this video you will learn about illuminator attribute panel management and sorting, ray fan filtering, embedded triangle displays and how to use the new Geometry panel.

Duration: 6 minutes

Anisotropy in Seismic Modeling and Imaging
This video presents a theoretical overview of anisotropy in seismic modeling and imaging and discusses the main approaches taken in GeoDepth for anisotropic model building and refining.

Duration: 19 minutes

TravelTime and 3D Kirchhoff Migration Highlights, From Paradigm 2011.3 to Paradigm 15.5
This video presents a demo showing the highlights of new features and enhancements implemented in TravelTime and 3D Kirchhoff Migration applications. The video discusses the main changes since the Paradigm 2011.3 release through the Paradigm 15.5 release.

Duration: 27 minutes

Enhanced Usability in Echos and GeoDepth, Paradigm 15.5
Paradigm continues to develop usability and performance enhancements that will benefit users of Echos and/or GeoDepth. This video discusses improvements to Echos and GeoDepth, and is aimed at existing users who have just upgraded, or are about to upgrade, to Paradigm 15.5.

Duration: 8 minutes

Seismic Waves in Anisotropic Elastic Media (Lecture Series by Zvi Koren)
This course, by Zvi Koren, consists of 14 lectures in pdf format. It is divided into four parts: Elastic Media, Waves and Rays, Effective Media, and Seismic.

The first part, “Elastic Media”, covers the fundamental concepts and governing equations of anisotropic elastic continua, with detailed derivations and definitions of the different anisotropic material symmetries.

The second part, “Waves and Rays”, deals with different solutions of the equation of motion in anisotropic elastic media. Starting with homogeneous and weakly homogeneous isotropic media and continuing to fully inhomogeneous anisotropic elastic models, emphasizing on high-frequency asymptotic ray theory.

The third part, “Effective Media” provides detailed description of effective kinematic (traveltimes and distances) parameters which are used to approximate wave propagation in azimuthally isotropic and azimuthally anisotropic multi-layer media. Basic workflows for velocity model building and updating using effective parameters are then described.

The last lecture, “Seismic Imaging”, provides detailed derivation of the so called “true-amplitude migration/inversion”, assuming both, Born and Kirchhoff approximations.
Working with QC RMO Attributes in Paradigm 14
This video covers an exciting new workflow in Paradigm 14, the use of QC Residual Moveout (RMO) Attributes in 3D Tomography. It discusses how to calculate QC RMO Attributes during RMO autopicking, perform QC, filtering and masking with 3D Canvas, and then incorporate a residual moveout mask in 3D Tomography.
Duration: 8 minutes

GeoDepth and SKUA Integration (4 videos)
Increased integration between GeoDepth and SKUA means that GeoDepth users can now take advantage of SKUA structural and stratigraphic model building capabilities in the velocity modelling and depth imaging workflow, by enhancing tomography results and illumination. In addition to T-sets extracted from the SKUA model, GeoDepth in Paradigm 15 and above supports volumes created from the SKUA model including: formation, dip, azimuth and velocity volumes. Since Paradigm 15.5, you can also generate pencils from a SKUA model and use them in a GeoDepth tomography workflow.

Creating a SKUA Structural Model Using the Interpretation Modeling Workflow introduces the Interpretation and Modeling workflow in SKUA-GOCAD for building SKUA Structural and Stratigraphic models.
Duration: 7 minutes

Creating Geological Formation, Dip and Azimuth Volumes from a SKUA Model teaches how to create a geological formation volume, a dip volume and an azimuth volume from the SKUA model, and how to send them to GeoDepth.
Duration: 6 minutes

Each video above is accompanied by a workflow document in PDF format for viewer download.

Working with SKUA Volumes in GeoDepth shows how the development of closer links between SKUA and GeoDepth in Paradigm 15.5 gives you the ability to use volumes generated in SKUA within GeoDepth workflows. In this video, we demonstrate how to incorporate complex structural and stratigraphical information from SKUA through velocity, geological formation, dip, and azimuth volumes.
Duration: 7 minutes

Working with SKUA Pencils in GeoDepth teaches how to create pencils in SKUA-GOCAD and use them in GeoDepth.
Duration: 11 minutes
## Geolog Essentials

**Geolog 7 Essentials**

Geolog 7 is the newest iteration of Geolog, the most widely used Petrophysical software in the industry. Geolog has stood the test of time and this release makes the software more intuitive, customizable and easy to use than ever. New users to Geolog 7, as well as those who are upgrading from older versions, will find these courses useful.

The Geolog Essentials eLearning course consists of two modules.

*New users to Geolog 7, as well as those who are upgrading from older versions, will find Creating a Project and Loading Data in Geolog 7 useful as it takes the student through setting up the working environment and projects and then moves on to populating the project databases by walking you through the basics of data loading.*

**Duration:** 60 minutes

*Data Viewing, QC and Display in Geolog 7 takes the student through the redesigned Application window layout, using the Well Catalog and Text Views and then the various ways to graphically view your data, using Layout, Xplot & Frequency plots.*

**Duration:** 60 minutes

### Introduction to Facimage in Geolog 7.2

Facimage is Geolog's Electrofacies calculation application, utilizing the MRGC clustering method for fast and unbiased clustering. With the release of Geolog 7.2, Facimage is now easier to use than ever, with logically ordered tabs taking you through the workflow steps.

**Duration:** 60 minutes

### Fuzzy Logic in Geolog

The Fuzzy Logic set of Loglan programs is a long standing part of Geolog and allows quick and easy facies and permeability predictions using fuzzy mathematics to assign probabilities to the quality of the predictions.

**Duration:** 30 minutes

### Pay Sensitivity and Pay Summary in Geolog 7.1

Anyone who has used Geolog before, will notice that there have been some changes. One of those was a reorganization of various modules, including Pay Summary. This course helps previous users get used to the new windows and the layout during model creation but also gives new users a helping hand getting started.

**Duration:** 30 minutes
The Highlight Tool in Geolog 7.2

The introduction of the right sidebar Highlight menu with Geolog 7.1 provided enhanced functionality for the tool, such as highlighting using an expression and the ability to select the color used for each highlight segment. The advent of the Highlight menu meant that the toolbar icons and menu options relating to highlighting had become obsolete and so they were removed for Geolog 7.2. This video is designed to demonstrate the functionality of the Highlight menu.

Duration: 6 minutes

Custom Fills and Markers in Geolog 7.3

The ability to customize the Geolog workspace has long been one of its attractions. The creation of custom fills and markers is just one feature, making Geolog a very versatile tool for our users. This video explains how to create these custom files.

Duration: 5 minutes

Evaluate in Geolog

The introduction of the Evaluate menu to the right sidebar, in Geolog 7.1, provides enhanced accessibility to the Evaluate tool. This video walks you through the use of the traditional Evaluate module and the new Evaluate menu. It introduces the Expression Builder tool, as an aid to creating the expression you need.

Duration: 8 minutes

Colormap in Geolog

The use of colormaps adds an extra dimension to viewing data in Geolog. This video demonstrates the use of colormaps in various views, such as Xplots, Frequency plots, Layout and Mapsheet views, and shows you how to create data dependent custom colormaps.

Duration: 6 minutes

Geolog Link (Geolog Petrel Connector)

Petrel is a tool widely used in the oil and gas industry and getting data between Geolog and Petrel quickly and easily is extremely important to creating a smooth path when adding petrophysical output to your reservoir models. This video explains how to select and transfer log data back and forth between Petrel and Geolog.

Duration: 5 minutes

Geolog Link Plugin Installation

Petrel is a tool widely used in the oil and gas industry and getting data between Geolog and Petrel quickly and easily is extremely important to creating a smooth path when adding petrophysical output to your reservoir models. This video explains how to set up the Petrel connector plug-in called Geolog Link.

Duration: 4 minutes
Interactive Data Creation & Editing with Geolog 7.1

*With the advent of Geolog 7, and now Geolog 7.1, interactive log editing was made more user friendly and intuitive by utilizing the right click menu option on the views, along with some other changes. This Video Learning course, which consists of four videos, will demonstrate some of the useful interactive log editing features in Geolog, such as depth shifting, log merging, dip picking and the picks tool.*

*This course consists of 4 videos: Log Merge, Split, Clear and Edit, Depth Shift and SP Baseline Shift, The Picks Tool, and Dip Picking.*

*Duration: 22 minutes*

Mapsheet Posting in Geolog 7.2

*When running through a petrophysical workflow in Geolog there are certain parameters that you need, which will vary on an interval by interval and well by well basis. Rather than using default average values, use the parameter picking tools in Frequency and Xplot to create custom values for each interval in each well.*

*Duration: 4 minutes*

Navigating the User Interface in Geolog 7.2

*With the advent of Geolog 7, major changes with ergonomics in mind were made to the user interface. The interface is now more user friendly and intuitive, utilizing the right click menu option on views and in other places. This Video Learning course demonstrates some of the ways you can interact with the user interface, work with the various types of view and create customized workspaces, which you can save for reuse.*

*There are two videos in this course:*

**Exploring the Workspace** explains the various parts of a typical application window and shows the different ways the layout can be customized.

*Duration: 5 minutes*

**Viewing Your Work** takes the user through opening views and their relocation. It explains splitting the display area and creating tab groups. Finally it explains how to create and use workspaces.

*Duration: 6 minutes*

Photo Importer in Geolog 7.2 and 7.3

*Geolog has long been able to display externally stored core photos in a layout track. The introduction of the Photo Importer tool in Geolog 7.2 has now made this functionality even easier to use. Most core photo image files consist of multiple core segments in one image. This interactive graphical tool automatically crops these images into individual core segment photo files and creates a data set in the Geolog well to display the segmented core photos in the layout track.*

*Duration: 5 minutes*
### Reservoir Characterization

**Geolog**

#### Splice Logs Tool in Geolog 7.3

*The Splice Logs document view is an interactive bulk log splicing utility, new to Geolog 7.3, and provides the ability to splice multiple logs from different logging runs/passes. Using Splice Logs, you can quickly visualize the sets available in each well and the depth ranges that they cover. Any log data that can be displayed in a wireline, image, table or lithology track can be spliced and the logs can come from different sets, have different names, and/or different sample rates.*

*Duration: 6 minutes*

#### Parameter Picking in Geolog

*Posting data values for the wells on a mapsheet in the Project application has been augmented in Geolog 7.2, with the addition of three ways to post data graphically. You can now post well data - such as lithology logs - as pie charts, post logs in histogram plots, and post data - such as dip data - as rose diagrams.*

*Duration: 7 minutes*

#### The Well Schematics Tool in Geolog

*The Well Schematics tool is new to Geolog 7.4 and provides an interactive way to build a well construction diagram. Quickly and easily, create a sample schematic then adjust casing, top cement and tubing depths and add perforation locations for a proportional inner and outer diameter display, which can then be added to a layout.*

*Duration: 6 minutes*

#### The Scheme Editor in Geolog 7.4

*The purpose of a project scheme in Geolog is to provide an overall hierarchy that can be used for correlating your wells, project–wide. This video introduces the Scheme Editor tool, new to Geolog 7.4, which has simplified the creation of schemes for use during Correlation.*

*Duration: 7 minutes*

#### Create a Correlator Scheme in Geolog 7.1 and above

*The purpose of a project scheme in Geolog is to provide an overall hierarchy that can be used for correlating your wells, project–wide. This video takes you through the creation of a simple scheme and the addition of tops surfaces to the scheme for use during Correlation.*

*Duration: 7 minutes*

#### What's New in Geolog 7.4

*Geolog version 7.4 is the newest incarnation of the leading solution for advanced formation evaluation and petrophysical analysis.*

*Now, the product's proven technological capabilities have been extended to the engineering domain, for work on wells that are already deep into production. In addition, a new, full-functioned geomechanics module that helps assess mechanical conditions around the wellbore provides deeper understanding into your reservoir.*

*Duration: 5 minutes*
**Reservoir Characterization**

**Geolog**

**Pore Pressure Prediction with Geolog 7.1p3**

Geolog 7.1p3 introduces a new module for log-based pore and fracture pressure prediction that optimizes drilling safety and helps design fracturing activity. Following data preparation and compaction trend analysis, the Geolog pore pressure prediction module calculates hydrostatic pressure, overburden pressure, pore pressure, and fracture pressure in a single multi-tab program. This Video Learning course will walk the user through these three stages. There are three videos in this course.

*IMPORTANT* The Pore and Fracture Pressure module requires a SynSeis license.

*Duration: 12 minutes*

**Shale Gas Workflow in Geolog 7.1 and above**

Available from Geolog 7.1 is the Shale Gas Unconventionals suite of tools. Available as a maintenance upgrade for anyone with a Determin license, it provides a set of modules and xplot templates to calculate total organic carbon and kerogen content, calculate free and adsorbed gas volumes to create gas accumulation columns, and calculate brittleness of the formations. This set of modules will be enhanced in future software releases.

*Duration: 11 minutes*

**The Change Sampling Tool in Geolog 7.4**

The Change Sampling tool is an interactive log sampling utility, providing the ability to resample regularly or irregularly sampled sets of log data. It is also possible to perform domain translation (i.e. from MD to TWT or TVDSS) or to change the depth range or units of the data during the resampling process. The output of the resampling process is always a regularly sampled set, sampled at a user defined sampling rate.

*Duration: 3 minutes*

**Determin Uncertainty in Geolog**

Deterministic petrophysics is one of the strengths of Geolog and quantifying the degree of uncertainty in the workflow has always been important. This Determin Uncertainty interactive eLearning course takes you through the theory behind the process. It then walks you through the workflow, from environmental corrections at the beginning through calculation of pay.

*This course is relevant for versions: Geolog 7.1p3, Geolog 7.2, Geolog 7.3, Geolog 7.4*

*Duration: 45 minutes*
### Reservoir Characterization

**Geolog**

#### The Geomechanics Workflow in Geolog 7.4

*The Geomechanics workflow is a new addition to Geolog 7.4. Understanding the geomechanical conditions in the formations around a wellbore is essential to ensuring well stability or assessing the optimum orientation for fracture development. The Geomechanics module provides new calculations and graphical views to assess the mechanical conditions around the wellbore. This new functionality builds on and complements the Pore Pressure Prediction module. There are three videos in this course.*

- **Video 1**  
  *Duration: 9 minutes*

- **Video 2**  
  *Duration: 7 minutes*

- **Video 3**  
  *Duration: 9 minutes*

#### Creating Interval Logs in Geolog

*One of the basic data types in Geolog is the interval log. Interval logs are used to limit a large set of data to a smaller range, for processing or for use in a view, such as a layout. This video shows the various ways an interval logs can be created from within Geolog.*

*Duration: 6 minutes*

#### Production Logging in Geolog 7.4

*Available in Geolog 7.4 as part of the new Engineering suite of tools is the Production logging view. This two part video series explains some of the theory behind production logging and then walks you through a workflow, examining the functionality available, parameter selection and spinner lot manipulation, and finally the result outputs available.*

- **Theory Behind Production Logging**  
  *Duration: 6 minutes*

- **Production Logging Workflow**  
  *Duration: 12 minutes*

#### Reservoir Characterization Tools in Geolog 7.4

*The Reservoir Characterization tools are new to Geolog 7.4. They consist of two new options in the Petrophysics section which are accessible to anyone who has a Determin license. The combination of Flow Indicators and Lorenz Plot provide an interactive way to calculate Flow and Storage Capacity for the reservoir intervals in your wells.*

*Duration: 11 minutes*
Pore Pressure Prediction in Geolog 7.4

Geolog 7.4 introduces an updated Pore Pressure Prediction module for log-based pore and fracture pressure prediction, to optimize drilling safety and help design fracturing activity. The Pore Pressure Prediction module is also an integral input to the new Geomechanics module in Geolog 7.4.

Integrating the data preparation, compaction trend analysis and pore and fracture pressure prediction steps into a single module, the Pore Pressure Prediction module calculates hydrostatic pressure, overburden pressure, pore pressure, and fracture pressure in a single multi-tab program.

Please Note: The Pore and Fracture Pressure module requires a PPP license.

Duration: 10 minutes

Single Well Formation Testing in Geolog

This video demonstrates how to use the WFT track, a single Well Formation Testing track that was introduced to Geolog with version 7.1p3. The WFT track can be inserted into a layout and allows the interactive selection of zones, active fluid assignment to text points and the automatic calculation of the depth where fluid type changes occur. Versions applicable: G7.1p3, G7.1, G7.2, G7.3, G7.4.

Duration: 6 minutes

The Well Integrity Casing Inspection Module in Geolog 7.4

The Engineering suite of tools is a new addition to Geolog 7.4. A part of this suite is the Well Integrity Casing Inspection module, allowing you an independent means of assessing the condition of the casing on your wellbore. Using this module you can examine your casing, joint by joint, and create a report which summarizes and highlights areas of concern. The Well Integrity offering will be enhanced in future software releases.

Duration: 10 minutes
### Migrations

#### Seismic Processing and Imaging

**Modeling and Imaging with Reverse Time Migration**

Reverse Time Migration, or RTM, offers a superior imaging solution in areas of structural complexity and strong velocity contrasts and provides enhanced imaging of steep dips and overhangs. Paradigm RTM uses a two-way, finite difference solution to the wave equation, with isotropic and anisotropic models as input, is fully integrated with both Echos and GeoDepth and leverages the latest high-performance computing technologies for optimal throughput. In this course, students learn about reverse time migration and how to use Paradigm RTM for modeling, imaging and illumination scaling. This module covers usage of Paradigm RTM in 2011.3 and Paradigm 14.

*Duration: 30 minutes*

**Kirchoff Imaging in Paradigm 14**

This video discusses the enhancements to Kirchhoff Imaging in Paradigm 14. In this release, KMig3D now replaces todmpre as our leading Kirchhoff imaging solution, and incorporates an intuitive and user-friendly interface. KMig3D includes a more accurate cubic anti-alias filter and the ability to work with azimuthally dependent data.

*Duration: 4 minutes*
### Reservoir Characterization

#### Probe & Vanguard

**Post-Stack Amplitude Inversion in Paradigm 2011.3**

Do you want to gain deeper insight into your reservoir? Inversion can help by producing a log property impedance section for the whole reservoir. See how to use Maximum Likelihood Inversion or MLI in a poststack mode in only an hour. And also see why it is less sensitive to the background. The Poststack Amplitude Inversion course is here to explain this inversion, why it works and how it works as well as how to verify the results.

**Duration:** 60 minutes

**AVO Analysis in 3D Canvas: Workflow Example in Paradigm 14**

With Paradigm 14, interpreters working in SeisEarth now have access to the Gather Conditioning utility which can be used for AVO analysis in 3D Canvas. This video follows a simple AVO workflow example that uses the new Gather Conditioning utility to condition and flatten gathers, and generate angle stacks. The angle stacks are then crossplotted to find AVO anomalies. The anomalies are then displayed as geobodies in the volume. An environmental variable must be set to access the Gather Conditioning utility in 3D Canvas.

**Duration:** 9 minutes

**Calculating Global Wavelets for Inversion: Multi-Attribute, Multi-Well Synthetics Modeling in Paradigm 14.1**

This video covers how to use the Well to Seismic Calibration (Synthetics Utility) to obtain global wavelets for multiple angle stacks using data from multiple wells. These wavelets can be used along with the angle stacks in Paradigm’s inversion utilities to generate rock property volumes.

**Duration:** 11 minutes

**Examining Well Logs for AVO Effects using Synthetics Modeling and Crossplot in Paradigm 14.1**

This video goes through a simple workflow showing how to generate AVO attributes from well log data using non-zero offset synthetics modeling in the Section window. You also learn how to examine these attributes for potential AVO anomalies using the Crossplot utility in the well log window. The video covers some theory as well as how to use the software.

**Duration:** 7 minutes

**Examining Well Logs for Fluid Anomalies using Log Display, Transformations and Crossplot in Paradigm 14.1.**

This video shows how to use log display, transformations and crossplots in the Well Log Window to analyze petrophysical log attributes for potential fluid anomalies. The video covers the theory behind identifying fluid anomalies in well logs as well as how to use the software.

**Duration:** 10 minutes
## Reservoir Characterization

### Fluid Substitution in Paradigm 14.1

This video shows how to use the Fluid Substitution utility in Paradigm 14.1. Fluid substitution is an important step in inversion workflows and forward modeling. In this video, we use the Fluid Substitution utility to remove the hydrocarbon signature in the log data in preparation for creating background models for inversion.

**Duration:** 11 minutes

### Using the Gather Conditioning Utility in 3D Canvas, Paradigm 14.1

This video demonstrates how to use the Gather Conditioning utility in 3D Canvas. This utility enables you to easily work with AVO, inversion and gather processing functionality directly within 3D Canvas as part of your interpretation, reservoir characterization and processing workflows.

**Duration:** 11 minutes

### Using the Geostatistical Volume Creation Utility to Create Background Models for Inversion, Paradigm 14.1.

This video covers how to use the Geostatistical Volume Creation utility to create background impedance and density volumes for inversion. The video also briefly discusses why we need to use background models, and how they are used during the inversion process.

**Duration:** 7 minutes

### Colored Inversion in Paradigm 15.

This course consists of a short high-level overview video and two technical training videos which cover the Colored Inversion utility available in Paradigm 15. Colored inversion is a simple and fast method for creating impedance volumes to identify and map geobodies and lithologic units. Unlike classical amplitude inversion methods, you do not need to use synthetic modeling to generate a wavelet and scale factor. Instead, colored inversion is a convolutional process which convolves the seismic with a colored inversion operator. In these videos you will learn how to design the CI operator, how to run the inversion, add a background model and analyze the results.

**Duration:** 22 minutes

### Prestack Maximum Likelihood Inversion

This course consists of four short videos that cover how to create rock property volumes from gathers (or angle stacks) and well data using Paradigm's Prestack Maximum Likelihood Inversion (PMLI). These videos include theory, how to set parameters, how to QC and adjust parameters to get the best results and how to use crossplotting tools in 3D Canvas to examine the rock property volumes for fluid anomalies.

**Duration:** 26 minutes
<table>
<thead>
<tr>
<th>Reservoir Characterization</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seismic-Focused Sweet Spot Characterization in a Shale Resource Play</strong></td>
<td></td>
</tr>
<tr>
<td>This video is based on a presentation by Madeleine Fulford at the American Association of Petroleum Geologists (AAPG) in Denver, June 2015.</td>
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<tr>
<td>The presentation covers a three-phase workflow to identify sweet spots in the Eagle Ford shale (Texas). The workflow uses AVO and seismic inversion (PMLI) to generate seismic attributes to identify regions that correlate with high TOC. Young's Modulus and Poisson's Ratio volumes generated from PMLI are used to determine the most brittle regions in the shale. Amplitude vs. Azimuth (AVAZ) attributes generated from full azimuth gathers (from ES360) are used to determine regions that correlate to high in-situ stress. The TOC, brittleness and in-situ stress information is then combined to find the sweet spots.</td>
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<td><strong>Duration:</strong> 24 minutes</td>
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</table>

<table>
<thead>
<tr>
<th>Introduction to Seismic Inversion</th>
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<tbody>
<tr>
<td>Seismic inversion is an important tool in reservoir characterization that enables you to combine well and seismic information to predict lithology and fluid content across the survey. This video provides an overview of seismic inversion for those who would like to have a basic understanding of: The value of inversion, inversion workflow, and the different inversion methods offered by Paradigm: Colored Inversion, Acoustic Inversion, Simultaneous Inversion, Log Curve Prediction (Neural Network Inversion).</td>
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<tr>
<td><strong>Duration:</strong> 9 minutes</td>
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</table>

<table>
<thead>
<tr>
<th>QSI for Unconventional Reservoirs</th>
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</thead>
<tbody>
<tr>
<td>This brief video is the follow-up to the video titled “Introduction to Seismic Inversion in Paradigm”. It quickly discusses the business case behind QSI for unconventional reservoirs, fractures, stresses and strains, the kind of seismic data required, and AVAZ and VVAZ effects. The video concludes with a fast look at Eagle Ford shale results from Paradigm’s QSI software.</td>
<td></td>
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<tr>
<td><strong>Duration:</strong> 9 minutes</td>
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</table>
## SeisEarth

### Interpretation and Modeling

**SeisEarth**

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
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</thead>
<tbody>
<tr>
<td><strong>Horizon Interpretation using the 3D Propagator in Paradigm 2011</strong></td>
<td>90 minutes</td>
</tr>
<tr>
<td>The first module teaches basic theory behind the Propagator, and how</td>
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<tr>
<td>the parameter settings affect the propagation results. In the second</td>
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<tr>
<td>module learn how to edit and extend the propagation using tools</td>
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<tr>
<td>available in the Propagator, and manual editing tools. The third</td>
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<tr>
<td>module introduces tips and techniques for using the Propagator for</td>
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<tr>
<td>a variety of interpretation challenges.</td>
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<tr>
<td><strong>Improved Multi-Attribute Visualization (New Features in Paradigm 2011) (Modules)</strong></td>
<td></td>
</tr>
<tr>
<td>This course covers new features in Paradigm 2011 for calculating</td>
<td>135 minutes</td>
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<tr>
<td>attributes and displaying multiple attributes in BaseMap, Section,</td>
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<tr>
<td>and 3D Canvas. It is aimed at the experienced SeisEarth user, but</td>
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<tr>
<td>may be useful for interpreters who are just getting started in</td>
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<tr>
<td>SeisEarth with a focus on attribute work.</td>
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<tr>
<td><strong>New Features in Paradigm 2011 For Improved Multi Survey Visualization and Interpretation</strong></td>
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<tr>
<td>This course consists of ten modules which cover the new features for</td>
<td>360 minutes</td>
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<tr>
<td>improved multi-survey interpretation in Paradigm 2011-SeisEarth. The</td>
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<tr>
<td>course is designed for experienced users of SeisEarth, but may be</td>
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<tr>
<td>useful for new users.</td>
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<tr>
<td><strong>Prestack Interpretation and Visualization in Paradigm 2011</strong></td>
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<tr>
<td>This course consists of two modules, which cover how to open, display,</td>
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<tr>
<td>and interpret prestack data in 3D Canvas. It includes basic theory.</td>
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<tr>
<td>The course is for interpreters who are experienced with SeisEarth.</td>
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<tr>
<td><strong>Examining Pre-Stack Gathers in SeisEarth Paradigm 2011</strong></td>
<td>30 minutes</td>
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<tr>
<td>Learn how to open and display prestack gathers in the post-stack and</td>
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<tr>
<td>prestack domains. The module includes basic theory about prestack</td>
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<tr>
<td>data, and how prestack data is displayed in different domains in 3D</td>
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<tr>
<td>Canvas. Learn how to display and examine gathers from 3D Canvas using</td>
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<tr>
<td>the 2D Pre-Stack window, as well as how to open and display gathers</td>
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<tr>
<td>in the Pre-Stack Viewer.</td>
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<tr>
<td><strong>Interpreting Pre-Stack Gathers in SeisEarth Paradigm 2011</strong></td>
<td>30 minutes</td>
</tr>
<tr>
<td>Learn how to use the 3D Propagator in 3D Canvas to interpret</td>
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<tr>
<td>gathers using existing interpretation, seeds placed on a post-stack</td>
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<tr>
<td>section and seeds placed on a gather. Learn some theory as to why</td>
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<tr>
<td>gathers are interpreted, and about data management of prestack</td>
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<tr>
<td>gathers and interpretation.</td>
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</tbody>
</table>
## Interpretation and Modeling

### SeisEarth

#### Automatic Fault Interpretation in 3D Surveys with FaultTrak Paradigm 2011

*FaultTrak, Paradigm’s semi-automated fault picking tool, allows you to increase your productivity when working with a complex structure. 3D Canvas provides an excellent 3D visualization environment to guide the tracking of faults. In this course, you will learn how quickly you can pick your faults using FaultTrak and how easy you can QC your picks and re-pick them according to the complexity level of your seismic. You will be amazed at how more efficiently you can work when you use FaultTrak.*

*Duration: 30 minutes*

#### Gridring in 3D Canvas and BaseMap in Paradigm 2011.3

*Gridring is an important part of most interpretation workflows. In 3D Canvas and BaseMap you have access to a rich set of interpolation algorithms to create the grid that best matches your input data and interpretation goals. But, how do you know which method to use? How do you check your grid against your input data? How do you create and manage multiple grids or create a grid from multiple sets of input picks? If you have these questions and more, this course is for you! Register now for this course and learn how to confidently select an appropriate interpolation method; use gridding parameters such as anisotropy, clipping and outlines; learn how to save, manage and view map objects and much more.*

*Duration: 30 minutes*

#### Stratigraphic Interpretation in 3D Canvas Paradigm 2011.3

*There are many exciting features in the Paradigm 2011.3 version of 3D Canvas that can be used for stratigraphic interpretation. This interactive course teaches an easy workflow which will enable students to use these tools and utilities to quickly find and examine stratigraphic features in their data using 3D Canvas. The stratigraphic workflow taught in this course uses Horizon Shifting, Stratigraphic Slicing, Spectrum Analysis, Frequency Gather Volumes, Attribute Volumes, Volume Flattening, Volume Rendering and Volume Lighting to visualize and examine stratigraphic features in a structurally complex dataset. The results can be incorporated into a larger workflow using other Paradigm products such as Stratimagic®, SeisFacies®, SKUA®, and VoxelGeo® for further stratigraphic analysis of the data.*

*Duration: 60 minutes*

#### Advanced Prestack Interpretation in 3D Canvas Paradigm 14

*Learn to use the new 3D Canvas prestack autopicker to generate QC moveout attribute curves and maps that help you evaluate data quality and uncertainty along your horizon.*

*Duration: 10 minutes*

#### AVO Analysis in 3D Canvas: Prestack Workflow Example

*With Paradigm 14, interpreters working in SeisEarth now have access to the Gather Conditioning utility which can be used for AVO analysis in 3D Canvas. This video follows a simple AVO workflow example that uses the new Gather Conditioning utility to condition and flatten gathers, and generate angle stacks. The angle stacks are then crossplotted to find AVO anomalies. The anomalies are then displayed as geobodies in the volume. An environmental variable must be set to access the Gather Conditioning utility in 3D Canvas.*

*Duration: 9 minutes*
### Calculating Seismic Attributes on-the-fly in 3D Canvas in Paradigm 14

With Paradigm 14, you are no longer limited by available memory to compute seismic attributes. The new Vertical sections option creates attributes on-the-fly for only the displayed section. Learn how to use the new On-the-Fly option for quick calculation of complex trace attributes on vertical sections in 3D Canvas.

**Duration:** 5 minutes

### Creating Grids from Well Properties in BaseMap, Paradigm 14 and above

This video teaches two workflows that can be performed with the Create Grids from Well Properties utility available in BaseMap and 3D Canvas. This video illustrates its use in BaseMap.

The first workflow shows how to create an average property map from logs within a specific interval. In this video, you learn how to create an average porosity map and an average water saturation map and display them together in BaseMap for QC.

The second workflow shows how to create a net pay thickness map from well property cutoffs. In this video, we will use two different cutoff values of the properties: porosity and shale volume/water saturation, to create two net pay thickness maps and compare them.

**Duration:** 9 minutes

### Examining Well Logs for Fluid Anomalies using Log Display, Transformations and Crossplot in Paradigm 14.1

This video shows how to use log display, transformations and crossplots in the Well Log Window to analyze petrophysical log attributes for potential fluid anomalies. The video covers the theory behind identifying fluid anomalies in well logs as well as how to use the software.

**Duration:** 10 minutes

### Fluid Substitution in Paradigm 14.1

This video shows how to use the Fluid Substitution utility in Paradigm 14.1. Fluid substitution is an important step in inversion workflows and forward modeling. In this video, we use the Fluid Substitution utility to remove the hydrocarbon signature in the log data in preparation for creating background models for inversion.

**Duration:** 11 minutes

### Geobody Interpretation using Crossplot in 3D Canvas with Subvolume Detection in VoxelGeo Paradigm 14.1

This video shows how to use the Crossplot utility and Volume Rendering in 3D Canvas to identify geobodies and then use Subvolume Detection in VoxelGeo to create surfaces based on those geobodies.

**Duration:** 8 minutes
<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to Configure the Pie Menu in Paradigm 14.1</td>
<td>This video shows how to open and configure the Pie Menu. The Pie Menu is a handy freestanding toolbar available by pressing the Spacebar in 3D Canvas, Section, BaseMap and 2D Canvas. In this video you learn how to add and remove tools to the Pie Menu, how to create a customized toolbar menu and customize the default toolbars. Duration: 4 minutes</td>
</tr>
<tr>
<td>Improved Volume Rendering (GPU) in 3D Canvas Paradigm 14</td>
<td>In the Paradigm 14 version of 3D Canvas, you can easily use Volume Rendering on datasets that exceed your GPU memory to quickly examine stratigraphic and structural details in your volume in 3D. This video shows how to take advantage of the new volume rendering functionality and presents some additional improvements to general volume manipulation that you may find handy. Duration: 7 minutes</td>
</tr>
<tr>
<td>Interpretation Workflow for 2D Surveys in Paradigm 14.1</td>
<td>This video demonstrates a fast and accurate workflow to interpret faults and horizons on a 2D line. It shows how the different interpretation tools available in Section and 3D Canvas can simultaneously be used to interpret a generic fault on parallel 2D lines, assign the picks to different fault surfaces, and then extend the picks to more seismic sections. It then shows how manual and automatic horizon interpretation tools can pick horizons on multiple 2D sections. Duration: 8 minutes</td>
</tr>
<tr>
<td>Managing Time-Depth Data for Domain Conversion in Paradigm 2011</td>
<td>This video introduces you to Paradigm's checkshot set format and set activation functionality so that you can easily switch between different checkshot sets for your well display in 3D Canvas. Duration: 6 minutes</td>
</tr>
<tr>
<td>Multi-Resolution Display for Disk Roaming in 3D Canvas Paradigm 14</td>
<td>With today's large datasets, one of the biggest challenges is displaying and working with all of this data using a system with limited memory. This video covers the multi-resolution optimized volume that was introduced in Paradigm 2011.3, which enables you to work with datasets much larger than available memory. The video also covers usability improvements and new tools introduced in Paradigm 14 to make working with the multi-resolution display even easier. Duration: 5 minutes</td>
</tr>
<tr>
<td>Multi-Survey Volume Flattening in Paradigm 14</td>
<td>In Paradigm 14, flattening in 3D Canvas works on multiple surveys enabling you to investigate geological features which span multiple surveys. This video demonstrates how to perform flattening across multiple surveys and how to interpret regional features on flattened surveys. Duration: 7 minutes</td>
</tr>
</tbody>
</table>
## New Window Management Tools in Paradigm 14

New window management tools help to make Paradigm 14 our most user-friendly version to date. This video covers general multi-panel management for application windows and some new window management options for the Well Log Window.

Duration: 3 minutes

## Stratigraphic Slicing: Stratigraphic Insights from 3D Seismic Data, Paradigm 2011

This video shows how to use stratigraphic slicing in 3D Canvas to gain insights into stratigraphic details in the data.

Duration: 5 minutes

## The New Gather Assessment Workflow using QC Moveout Attributes

This course consists of two videos. The first video describes the Prestack RMO Autopicker, a very useful tool that enables users to assess the quality and reliability of their interpretation. In this video you learn how the Prestack RMO Autopicker can be used to evaluate the image quality and depth uncertainty of the interpretation in different depths and regions, by monitoring the prestack events in terms of flatness and coherency.

Duration: 5 minutes

The second video walks you through a simple workflow using the Prestack RMO Autopicker application and its outputs, mainly QC Moveout Attributes, as implemented in 3D Canvas.

Duration: 9 minutes

## Using Opacity in VoxelGeo and 3D Canvas, Paradigm 2011.1

This video shows how to use the Opacity tool in VoxelGeo and 3D Canvas to get the most out of your visualization work by enhancing subtle amplitude details within a geobody or volume.

Duration: 5 minutes

## Using the Correlation Polygon in 3D Canvas, Paradigm 2011

This video shows how to use the Correlation Polygon in 3D Canvas to easily correlate sequences across a fault.

Duration: 3 minutes

## Using the Gather Conditioning Utility in 3D Canvas, Paradigm 14.1

This video demonstrates how to use the Gather Conditioning utility in 3D Canvas. This utility enables you to easily work with AVO, inversion and gather processing functionality directly within 3D Canvas as part of your interpretation, reservoir characterization and processing workflows.

Duration: 11 minutes
### Working with Facies Maps and Volumes in SeisEarth and VoxelGeo in Paradigm 14.1

*In this video we’ll use Paradigm 14.1 to examine facies and amplitude maps together in BaseMap and in 3D Canvas using thresholding to examine specific attributes. We’ll also review how to open, display and examine facies volumes in 3D Canvas, merge the facies volume with an amplitude volume, and use volume rendering to examine facies geobodies in 3D. We’ll then create a surface around a facies geobody using subvolume detection tools in VoxelGeo and examine the T-surface in 3D Canvas.*

*Duration: 12 minutes*

### Working with Templates in the Well Log Window

*Improvements to templates in the Well Log window Paradigm 14 - Paradigm 14.1*

*This video reviews the new template management tools in Paradigm 14. There are many improvements to managing and using templates (previously called layouts) including shortcuts to open and display well data without using the Open Logs utility, and shortcuts to quickly switch between Template mode and Undefined Mode, as well as much more.*

*Duration: 10 minutes*

### Creating, Saving and Working with Templates in the well Log window Paradigm 15 and Above

*In this video you learn how to create a template, save and modify a template and use templates to quickly open and display well data using log displays and track layouts designed for your workflows. This video uses functionality introduced in Paradigm 15 and Paradigm 15.5.*

*Duration: 7 minutes*

### Seismic Mistie Analysis and Correction Paradigm 15

*This course consists of two videos that show how to analyze and correct seismic misties for multi-survey (2D-3D) data. The first video explains how the misties are calculated and shows how to use the Seismic Misties tool in BaseMap to perform the mistie calculation. The second video then shows you how to examine and edit the seismic mistie values using BaseMap and Section window.*

**Calculating the Misties**

*Duration: 7 minutes*

**Examining and Correcting Seismic Misties**

*Duration: 6 minutes*
<table>
<thead>
<tr>
<th><strong>Interpretation and Modeling</strong></th>
<th><strong>SeisEarth</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Working with Fault-Horizon Contacts in SeisEarth, Paradigm® 15 and above</strong></td>
<td>This course includes two videos which cover significant enhancements to the fault-horizon contacts in SeisEarth for Paradigm® 15 and Paradigm® 15.5.</td>
</tr>
<tr>
<td><strong>Fault-Horizon Contacts in Paradigm® 15.5 - Auto-Calculating Fault-Horizon Contacts while Interpreting</strong></td>
<td>This video covers the on-the-fly functionality introduced in Paradigm® 15.5 for creating fault-horizon contacts while picking. The video also reviews basic concepts, editing, manually drawing contacts and managing contacts as well as how to create outlines from auto-calculated fault-horizon contacts. <strong>Duration: 9 minutes</strong></td>
</tr>
<tr>
<td><strong>Fault-Horizon Contacts in Paradigm® 15 - Creating Fault-Horizon Contacts using Existing Interpretation</strong></td>
<td>This video illustrates different methods for generating and working with fault-horizon contacts for existing interpretation. This video explains:</td>
</tr>
<tr>
<td></td>
<td>● How to use the Fault-Restrict option in BaseMap</td>
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<tr>
<td></td>
<td>● Batch calculation of Fault-Horizon Contacts in Section and 3D Canvas</td>
</tr>
<tr>
<td></td>
<td>● Manual drawing of Fault-Horizon Contacts in 3D Canvas</td>
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<tr>
<td></td>
<td>● Editing enhancements of Fault-Horizon Contacts include changing the type and role of the contacts, re-assigning the contacts to a different fault surface and erasing the contacts. <strong>Duration: 11 minutes</strong></td>
</tr>
<tr>
<td><strong>Creating Polygons in BaseMap, Paradigm 14 and above</strong></td>
<td>This video shows how to create and edit polygons in BaseMap. Polygons can be used as an external or internal map boundary to constrain gridding, as a fault outline to prevent gridding from crossing faults, or to capture regions of a grid to apply calculations. <strong>Duration: 6 minutes</strong></td>
</tr>
</tbody>
</table>
### Interpretation and Modeling/Reservoir Characterization/Reservoir Engineering

#### SKUA-GOCAD

#### 3D Prospect Mapping with Paradigm 2011

Learn how you can benefit from Paradigm 2011, including SeisEarth and SKUA, to reconcile interpretation and modeling and easily create consistent structural models and horizon maps.

*Duration: 60 minutes*

#### Creating a Project and Importing Data in SKUA Paradigm 2011

*This course introduces you to the fundamentals of SKUA. It is divided into 2 modules where, through videos, interactive simulations, questions and quizzes, you will get started with using SKUA. In the first module you will learn how to create and open a project, manage your settings and save your project. In the second module you will learn how to import and export your data by using some of the numerous converters provided.*

*Duration: 60 minutes*

#### Fault Compartmentalization and Fluid Saturation Modeling in SKUA Paradigm 2011

*In this course you learn how to describe fluids and fluid contacts in each reservoir compartment prior to modeling the fluid saturations in your reservoir grid with the Fluid Saturation Workflow.*

*Duration: 60 minutes*

#### Flow Simulation Gridding in a Compressive Environment in SKUA Paradigm 2013.2

*SKUA provides a comprehensive and interactive set of tools and workflows which allow you to easily handle stair-step grids for flow simulation, from grid creation and property upscaling to flow simulation input file creation and production data analysis, regardless of the model complexity and indexing. In this training course students learn how to build the best possible grids for flow simulation and tackle the associated challenges when it comes to volume computation, fault transmissibility definition and grid export, for example. Enroll now to learn how to make the most of SKUA’s capabilities for creating simulation models that more accurately capture the interpreted structure and stratigraphy of the reservoir, regardless of its complexity, and that are fully compatible with commercial flow simulators!*  

*This course is not accompanied by audio.*

*Duration: Self-paced*

#### Navigating the User Interface and Managing your Data in SKUA Paradigm 2011.3

*This module introduces you to the new user interface and some of the fundamentals of SKUA for displaying and managing your data. Through videos, interactive simulations, questions and quizzes, you will learn how to manage SKUA specific menus and toolbars, tabs and views, and also how to display data and change the object’s appearance.*

*Duration: 30 minutes*
Modeling an Unconformity in SKUA Paradigm 2011

In this course you learn how to model an unconformity in your structural and stratigraphic model by defining the unconformity in the stratigraphic column, checking the consistency of the sequence of the stratigraphic units and markers along the well paths, and using erosion lines.

Duration: 30 minutes

Modeling Simple Stratigraphic and Aerial Facies Deposition Trends in SKUA Paradigm 2011.3

Capturing and describing spatial facies heterogeneity and deposition trends is a critical step in your reservoir modeling process. This step can help you go beyond the raw statistics computed from well data and seismic, and constrain your 3D facies model to your conceptual model of the depositional environment. SKUA provides a comprehensive and interactive set of tools to model facies deposition trends and derive facies probabilities, followed by a comprehensive set of algorithms to stochastically simulate facies. In this course students will learn how to model simple stratigraphic and aerial facies deposition trends from a conceptual model, and incorporate these trends in a 3D facies model. Enroll now to learn how to make the most of SKUA's capabilities for creating realistic facies models which honor the true underlying geologic distribution!

Duration: 30 minutes

Performing Bivariate Analysis in SKUA-GOCAD

When propagating a property between wells, it is necessary to identify trends in the data so that the interpolation method properly captures them. In this video you will learn how to use the Bivariate Analysis task in the SKUA-GOCAD Reservoir Data Analysis workflow to capture trends and residuals in petrophysical models, leading to more geologically realistic models.

Duration: 8 minutes

SKUA Structure Uncertainty Workflow in Paradigm 14.1

A SKUA model is the center-piece of any integrated uncertainty study as it numerically combines data from petrophysical analysis, seismic and geologic interpretation. To be complete, it must account for the uncertainty associated with all of these. This is now something you can do using Paradigm Uncertainty Suite of tools which enables you to use a geologically consistent SKUA model and geologic grid to assess the impact of uncertainty on your reservoir volumes.

The two videos in this course provide students with a look at uncertainty in the horizons, faults and fluid contacts position, due to velocity model and interpretation uncertainty, and their impact on the gross rock volume. Thanks to the new SKUA Structure and Uncertainty workflow based on the UVT Transform, you can now run stochastic simulation of a complete structural model including multiple horizons and faults.

Defining the Uncertainty Parameters covers defining the uncertainty parameters for each one of the structural element: horizons, faults, and fluid contacts.

Duration: 5 minutes

Simulation Run and Results Analysis, focuses on the simulation run and examining the results from the Uncertainty Viewer.

Duration: 6 minutes
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>SKUA- GOCAD</strong></td>
</tr>
<tr>
<td><strong>Taking Snapshots of the 3D Viewer in SKUA Paradigm 2011.3</strong></td>
</tr>
<tr>
<td><strong>In this short video you learn how you can easily create snapshots of your 3D Viewer for reporting purposes for instance.</strong></td>
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<tr>
<td><strong>Duration: 3 minutes</strong></td>
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<tr>
<td><strong>Interactive Creation of 2D Facies Deposition Trend Maps in SKUA</strong></td>
</tr>
<tr>
<td><strong>SKUA provides a comprehensive and interactive set of tools which allow you to capture and describe spatial facies heterogeneity and deposition trends, as well as facies probabilities, in order to create realistic facies models which honor the true underlying geologic distribution. This Video Learning course, which consists of two videos (Creating a Map from Deposition Azimuth and Creating a Map from Facies Boundaries), show students how they can easily create simple facies trend maps to incorporate deposition trends in their 3D facies model and constrain it to their conceptual model of the depositional environment.</strong></td>
</tr>
<tr>
<td><strong>Duration: 7 minutes</strong></td>
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<tr>
<td><strong>Using the Property Script Editor in SKUA Paradigm 2011.3</strong></td>
</tr>
<tr>
<td><strong>This video introduces you to the Property Script Editor, a flexible and easy-to-use tool which allows you to change or calculate new property values by using C-language syntax.</strong></td>
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<tr>
<td><strong>Duration: 3 minutes</strong></td>
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<tr>
<td><strong>Variogram Analyzer: A Tool to Study the Data Spatial Variability and Create Variogram Models</strong></td>
</tr>
<tr>
<td><strong>The variogram analyzer in SKUA-GOCAD enables you to compute an experimental variogram from any kind of data, in order to build a robust variogram model that can then be used in geostatistical algorithms to simulate or interpolate petrophysical properties.</strong></td>
</tr>
<tr>
<td><strong>This video course is made of three videos. Each one describes a task of the Variogram Analyzer.</strong></td>
</tr>
<tr>
<td><strong>In the first video, you learn why variogram modeling is such a crucial step in any property modeling study, and how to specify the input data and transformations.</strong></td>
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<td><strong>Duration: 6 minutes</strong></td>
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<tr>
<td><strong>In the second video, you discover how easy it is to define the parameters to compute the vertical and areal experimental variograms. You also review why it is important to analyze the signature of the experimental variogram.</strong></td>
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<td><strong>Duration: 7 minutes</strong></td>
</tr>
<tr>
<td><strong>In the third video, you review the key parameters that describe the variogram model, and learn how simple it is to fit the variogram model to the points of the experimental variogram.</strong></td>
</tr>
<tr>
<td><strong>Duration: 8 minutes</strong></td>
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</tbody>
</table>
Visualizing Blocked Data in 2D in SKUA-GOCAD

In the SKUA-GOCAD Reservoir Data Analysis workflow you can use different blocking methods to upscale the well data to the grid resolution, and create several scenarios. To help you compare between the original data and the blocked data, and choose between the different scenarios, you can now display the results in 2D, in a well section. Watch this short video to discover how you can use this new feature to quickly make an informed decision as to how to validate and select a blocking method.

Duration: 5 minutes

Customizing a Map View in SKUA-GOCAD

This video teaches users how to customize a Map view in SKUA-GOCAD by adding and editing legends, properties and objects.

Duration: 3 minutes

The Search for Wells Tool in SKUA-GOCAD

This video teaches how to use the Search for Wells tool in SKUA-GOCAD to filter wells using different criteria, such as the well path orientation and log data, and group them into meaningful well lists.

Duration: 4 minutes

Reviewing Properties in SKUA-GOCAD

This video teaches users how to manage and QC Object properties (including well logs) by editing the property settings and reviewing statistics.

Duration: 4 minutes

Sharing Culture Data and Polygons Between Epos and SKUA-GOCAD

In Paradigm 15.5, the link between Epos and SKUA-GOCAD includes many options that make it easy to work in parallel with both applications. This video shows:

- How to open Epos Culture Data in SKUA-GOCAD.
- How to share two types of polygons between Epos and SKUA-GOCAD. Polygons as Map Boundaries and Fault Outlines in Epos can be exported to SKUA-GOCAD and imported back to Epos.

Duration: 7 minutes

Updating a Surface with Well Markers and Contours in SKUA-GOCAD

SKUA-GOCAD offers many options to update existing triangulated surfaces with new data outside the modeling workflows. This video takes you through two different scenarios:

In the first scenario you learn how to update an existing faulted surface with new well markers, and in the second scenario you learn how to fit a coarse surface to new contour lines.

Duration: 9 minutes
<table>
<thead>
<tr>
<th>Topic</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Importing and Displaying Microseismic and Related Data in SKUA-GOCAD</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Learn how to import and display data associated with hydraulic fracturing, including microseismic events, related data and well treatment intervals to create PointsSet objects and properties, and add data to existing wells.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Using the Slicer for QC Purposes in SKUA-GOCAD</td>
<td>4 minutes</td>
</tr>
<tr>
<td>The slicer is a handy and flexible tool in SKUA-GOCAD that enables you to quickly review your objects in 3D. In this video, you learn how to use the slicer to review a model, and to help you define the stratigraphy along the wells.</td>
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</tbody>
</table>

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<tr>
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<tbody>
<tr>
<td>Introduction to Macro Commands in SKUA-GOCAD</td>
<td>6 minutes</td>
</tr>
<tr>
<td>Macros enhance the automation and flexibility of SKUA-GOCAD. Starting SKUA-GOCAD Paradigm 14.1, users can access a list of built-in macros directly in their projects. Watch this video to learn how to use macros to help you reduce repetitive tasks and processes.</td>
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</tbody>
</table>

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<tr>
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<tbody>
<tr>
<td>Printing Property Values to a File from the Property Script Editor in SKUA-GOCAD</td>
<td>6 minutes</td>
</tr>
<tr>
<td>This video presents the print function in the Property Script Editor. Using this function, not only can you export the values of any property in your SKUA-GOCAD project (including properties that are not visible in the Objects tree such as 3D grid indices, cell coordinates and part ID for geologic grid), but you can also make changes to the property values when printing them to the file.</td>
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<tbody>
<tr>
<td>Sharing 2D Grid Properties Between Epos and SKUA-GOCAD</td>
<td>5 minutes</td>
</tr>
<tr>
<td>This video shows how to share 2D Grid properties between Epos and SKUA-GOCAD. In previous versions, you were able to import/export the 2D Grid in SKUA-GOCAD from/to Epos only as horizon structure grids. Now in Paradigm 15.5, you are able to share different 2D Grid properties in SKUA-GOCAD with Epos as different types of horizon grids.</td>
<td></td>
</tr>
</tbody>
</table>
## StratEarth

### Interpretation and Modeling

#### StratEarth

##### Getting Started with StratEarth Paradigm 2011

This course is a brief introduction to StratEarth, the cross-sectioning and well correlation tool in Paradigm 2011. In this course you learn how to open data in StratEarth, manage the different views and control the display of data in these views, and much more.

**Duration:** 30 minutes

##### Using Cross Sections for Geologic Interpretation in StratEarth

Cross sections in StratEarth are a great tool for geologic interpretation; they complement well sections when it comes to marker interpretation, and allow you to create your own conceptual model.

Take this course for a comprehensive overview of how to use cross sections; from digitizing a traverse in BaseMap and sending it to StratEarth, to displaying well, seismic and interpretation data. Most importantly, learn how to use seismic for well correlation, and how to make the most of StratEarth features and functionality by adding facies interpretation and drawing your own geological model directly in the cross section view.

**Duration:** 60 minutes

##### Well Correlation in StratEarth Paradigm 2011 and above

Correlating wells and interpreting markers in Paradigm could not be easier! Paradigm StratEarth provides a complete suite of tools that are both intuitive and easy to use from the moment you display your wells in a section. Take this course and learn how to use these tools to quickly correlate, create or ghost markers. For more complex settings, discover a cleverly designed solution for setting up the geological relationship of the stratigraphic units and defining unconformities and faulted-out sections. Rest assured, we've made it as simple as we can by adding shortcut keys for selecting and picking well markers without compromise. Our suite of tools is now available in both well and cross sections. You can pick your markers with increased confidence by using Paradigm StratEarth. Go ahead and register now to learn how to make the most of StratEarth's capabilities and get the most from your data.

**Duration:** 60 minutes

##### Working with Well Track Templates in Vertical Sections in StratEarth Paradigm 2011.2

In this course you learn how to use well track templates in StratEarth to control the display of logs and markers, manage the layout of more than one well and create consistent displays across multiple views and projects.

**Duration:** 60 minutes
Sending a Traverse to StratEarth

Integration between applications is key and Paradigm is making it easier to go from one application to another and transferring data. This video will illustrate how, when sending a traverse from BaseMap, well and seismic data are automatically loaded in StratEarth and displayed in a Well and Cross Section views. All in one click! Discover how geologists can quickly move from BaseMap to StratEarth by watching this short video.

Duration: 4 minutes

How to Display Multi-Run Logs in Log Tracks

This video shows how to correctly display logs belonging to different log sets in a single track in Well Sections and Cross Sections in StratEarth. This display is useful when the logs are loaded to the database in several runs and saved to different log sets.

Duration: 7 minutes
Stratimagic/SeisFacies

Interpretation and Modeling
Stratimagic/SeisFacies

2D Seismic Facies Classification in Stratimagic/SeisFacies, Paradigm 14.1

In this video we’ll perform facies classification on 2D surveys. We will use the 2D Mistie QC utility to examine how misties affect the results. We will also grid the 2D facies in BaseMap to create a regional facies map.

Click the Course Documents button on the left of the opened course panel to view/download a PDF summarizing the workflow covered in this video.

Duration: 11 minutes

Creating Thickness Maps in Stratimagic, Paradigm 14 and above

This video shows how to use Stratimagic to easily create thickness maps for an interval of data in any rock property volume. Although this little known feature is not new, it is demonstrated in this video using the Paradigm 14.1 version of Stratimagic.

Duration: 8 minutes

Optimized Classification Workflow in Stratimagic, Paradigm 15

In Paradigm 15, we’ve improved the interval selection process making it easy to perform sensitivity analysis on the interval thickness to help with your well placement decisions. The interval you select is critical to the facies result. In previous versions of the software you had to write over your facies or create a new interval object from scratch and then create a new facies map using the new interval. This could be somewhat time consuming, especially if you were working with large datasets. But, with Paradigm 15, testing different intervals is much easier and much faster, and has a huge impact on productivity, making it easy to provide higher definition to the maps you use to analyze well locations.

Duration: 5 minutes

Facies Classification Workflow in Stratimagic, Paradigm 14.1 and above

In Paradigm 14.1 Stratimagic introduced a multi-window, multi-panel interface. In this video we will go through a simple facies classification workflow to review some of the new features in Stratimagic and how to work in the new interface.

Duration: 11 minutes

Working with Facies Maps and Volumes in SeisEarth and VoxelGeo in Paradigm 14.1

In this video we’ll use Paradigm 14.1 to examine facies and amplitude maps together in BaseMap and in 3D Canvas using thresholding to examine specific attributes. We’ll also review how to open, display and examine facies volumes in 3D Canvas, merge the facies volume with an amplitude volume, and use volume rendering to examine facies geobodies in 3D. We’ll then create a surface around a facies geobody using subvolume detection tools in VoxelGeo and examine the T-surface in 3D Canvas.

Duration: 12 minutes
Synthetics Modeling

Interpretation and Modeling
Synthetics Modeling

Basic Well to Seismic Calibration in Paradigm 2011

This course consists of three modules which teach basic well to seismic calibration in Paradigm 2011 for zero-offset data. The first module provides an introduction to zero-offset synthetic modeling in Paradigm 2011, and the second and third modules cover the calibration workflow. The workflow is divided into two parts: Calculating the Synthetic (module two) and Calibrating the Synthetic (module three). This course is available in Russian.

Duration: 150 minutes

Multi-Well Synthetics Calibration (Zero-Offset) for Inversion

Paradigm's Well to Seismic Calibration utility is the most powerful tool available today in the industry for well calibration and provides a complete toolbox of options to get a great match between your well and seismic data. In this course, students will use Paradigm's Well Calibration utility to follow a simple, customizable workflow for calibrating multiple wells at one time without compromising quality for productivity. They will also learn to confidently extract a global wavelet and scale factor for generating rock properties so that they get the best inversion results and the most out of their data. Register now and make sure you are working with calibrated well data before you start your interpretation and inversion work!

Duration: 60 minutes

Checkshot Calibration and Drift Correction in Paradigm 14

The new synthetics utility in Paradigm 14 includes a completely new checkshot calibration utility. Checkshot calibration is now easy to incorporate into your well calibration workflows to ensure consistency between checkshot and sonic velocities and correct for drift during the stretch and squeeze process. This video explains the theory behind the new checkshot calibration functionality and shows how to calibrate checkshot and velocity logs as part of your well calibration workflow.

Duration: 11 minutes

Checkshot Calibration in Paradigm 2011

This video shows you how to calibrate checkshot time logs using velocity logs to ensure data consistency before you perform your well calibration work.

Duration: 5 minutes

Examining Well Logs for AVO Effects using Synthetics Modeling and Crossplot in Paradigm 14.1

This video goes through a simple workflow showing how to generate AVO attributes from well log data using non-zero offset synthetics modeling in the Section window. You also learn how to examine these attributes for potential AVO anomalies using the Crossplot utility in the well log window. The video covers some theory as well as how to use the software.

Duration: 7 minutes
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<tr>
<th>Topic</th>
<th>Description</th>
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<tbody>
<tr>
<td>Managing Time-Depth Data for Domain Conversion in Paradigm 2011</td>
<td>This video introduces you to Paradigm’s checkshot set format and set activation functionality so that you can easily switch between different checkshot sets for your well display in 3D Canvas.</td>
<td>4 minutes</td>
</tr>
<tr>
<td>Well Calibration in the Depth Domain in Paradigm 14</td>
<td>This video covers the theory behind well calibration in depth in Paradigm 14 using the new Synthetics Utility interface. You can now use seismic velocities to scale the depth seismic data during the calibration process. Input and output data is covered along with options for calibrating with scaling, without scaling, generating velocity volumes, etc.</td>
<td>6 minutes</td>
</tr>
<tr>
<td>Well Calibration in the Time Domain in Paradigm 14: Calculating and Calibrating the Synthetic Seismogram</td>
<td>These two videos highlight new features in the synthetics utility interface in Paradigm 14 by going through a workflow in which we calculate a synthetic seismogram in time migrated domain and calibrate it to the seismic data. Specific topics covered include: Selecting and QCing input data, examining seismic amplitude spectrum at the well, selecting/modifying/extracting and initial wavelet, defining the correlation parameters, shifting, stretching &amp; squeezing the synthetic to improve correlation, extracting a final wavelet, and saving the output.</td>
<td>21 minutes</td>
</tr>
<tr>
<td>Introduction to Well Calibration using Zero-Offset Synthetic Modeling</td>
<td>This short tutorial is designed for users new to Paradigm, or new to Synthetics Modeling. The tutorial briefly explains how the seismogram is calculated and then proceeds through a simple 3-step workflow that can be applied using most zero-offset datasets. In Step 1 you calculate the initial seismogram by examining and selecting the input data and modeling method, defining the output data and modifying the frequencies of a model wavelet to match the seismic. In Step 2 you calibrate the synthetic to match the seismic by applying a phase rotation, a time shift and fine-tuning the time-depth relationship using stretch &amp; squeeze tools on the synthetic. Step 3 is optional and shows you how to further fine tune the match between the synthetic seismogram and the seismic data using an extracted wavelet.</td>
<td>30 minutes</td>
</tr>
</tbody>
</table>
**VoxelGeo**

**Interpretation and Modeling**

**VoxelGeo**

**Detection Thickness Maps in VoxelGeo Paradigm 14**

*In Paradigm 14, you can examine the thickness distribution across geobodies, in addition to obtaining the thickness range which was available in previous versions. This video covers how to create and work with thickness maps created from Subvolume Detections in VoxelGeo.*

*Duration: 5 minutes*

**Improved Volume Handling and GPU Rendering in VoxelGeo Paradigm 14**

*In Paradigm 14, VoxelGeo can now load >8-bit volumes to memory. This video covers how to load and work with >8-bit volumes as well as new GPU roaming functionality on trimmed volumes. The video also covers some usability improvements such as: Well head display, set center shortcut, and a new horizontal scale bar.*

*Duration: 6 minutes*

**Automated Horizon Interpretation for Complex Geology in VoxelGeo**

*This video presents an efficient method of performing automated horizon interpretation on full seismic data with complex geology. Typical interpretation challenges for automated horizon picking include: Dense faulting, abrupt changes in reflectivity, low signal to noise ratio, and repetitive adjustment of propagation parameters.*

*These challenges can result in lower productivity, more time devoted to interpretation and less to analysis. Paradigm's 3D Propagator handles these challenges and enables you to efficiently interpret horizons in complex geologic settings.*

*Duration: 4 minutes*

**Using Opacity in VoxelGeo and 3D Canvas Paradigm 2011.1**

*This video shows how to use the Opacity tool in VoxelGeo and 3D Canvas to get the most out of your visualization work by enhancing subtle amplitude details within a geobody or volume.*

*Duration: 5 minutes*
Using the Paintbrush tool for Detecting and Editing Complex Structures and Editing Geobodies in VoxelGeo, Paradigm 15

This video shows you how to use the Paintbrush tool in VoxelGeo to detect and pick complex structures. It detects horizontally or vertically one sample thick voxels within the brush box, with the value range set from the sample selected. The Paintbrush tool can also erase parts of an existing seed detection or an existing multi body detection, then create a horizon from the remaining parts of the detection. You will also learn how the Paintbrush can detect and index large areas, and create geobodies to outline formation regions.

Duration: 9 minutes

Voxel Rendering Modes in Paradigm 2011.1

This video reviews two rendering modes available within the Paradigm 2011.1 release: the Auto rendering mode and the new GPU rendering mode.

Duration: 4 minutes
Workflow Guides

Paradigm Online University includes Workflow Guides to help you quickly access online training based on steps in an interactive workflow.

- Generating Rock Property Volumes using Seismic Inversion (Vanguard)
- Geolog for Engineers
- Getting Started with Geolog
- Multi-Survey Seismic Interpretation Fundamentals (SeisEarth)
Subtitled Courses - Russian

Epos Data Management and Interoperability
- Managing Well Data in the Well Data Manager

Stratimagic/SeisFacies
- Stratimagic and the Epic Interface
- Creating Thickness Maps in Stratimagic
- Working with Facies Maps and Volumes in SeisEarth and VoxelGeo

SeisEarth - Interpretation
- Examining Well Logs for Fluid Anomalies
- Creating Grids from Well Properties in BaseMap
- Fault Horizon Contacts in Paradigm 15

Synthetics Modeling
- Examining Well Logs for AVO Effects using Synthetics Modeling
- Checkshot Calibration in Paradigm 2011.1
- Managing Time-Depth Data for Domain Conversion
- Zero-Offset Modeling in Paradigm 2011 (3 videos)

SKUA
- SKUA Structure Uncertainty Workflow - Paradigm 14.1

Continued on next page...
Geolog

- Pore Pressure Prediction in Geolog
System Requirements

Be sure you meet the following minimum system requirements before you start following a Paradigm eLearning course:

**Minimum System**
- Windows XP, 7, or Linux RHEL5
- 1280 x 960 screen resolution
- Speaker or Headset

**Browser**
- Internet Explorer 7.0 or higher
- Mozilla Firefox 4.0 or higher

**Flash Player**
- Adobe Flash Player version 10 or higher. We recommend keeping up to date with the latest version of Flash Player since there are older versions that have known issues.