

The Beginner's Guide to PetroVisor™



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Introduction

Why should you read this guide?

Every E&P company wants to grow faster and spend fewer resources to do so. If you're looking for a platform that can deliver you a competitive advantage, this guide is for you.

The average E&P company today is using hundreds of software applications but struggles to automate processes that run across them. Similarly, the average engineer uses dozens of SaaS applications, yet isn't empowered to improve the processes that fall under their purview.

The PetroVisor platform enables E&P companies to automate the flow of data and knowledge across any number of applications and departments so that they can scale their growth and productivity.

This Beginner's Guide to the PetroVisor platform is designed to educate you on an emerging new technology that has the potential to transform your business. It will define a new category of software and describe the benefits to E&P companies that are ready to grow.

We'll cover the following topics.

- Why companies are now adopting the PetroVisor platform
- How PetroVisor is different from other technologies
- The common features and advanced functions of PetroVisor

We've also included worksheets that you can use to figure out whether your E&P company is ready for PetroVisor and how it will help you increase growth and productivity.



Part one: What is the PetroVisor platform

What

The PetroVisor platform is a new category of software which automates the flow of data and knowledge that can span multiple applications and data sources across an organization.

PetroVisor is referred to as a "Knowledge Automation Platform" because of three reasons.

- 1). E&P companies use PetroVisor for a wide variety of processes & workflows. PetroVisor is not limited to front-office only workflows or IT managed operations. PetroVisor is not limited to be used by one asset or used by one department. PetroVisor isn't limited to simple pointto-point automation or limited IT-driven automation initiatives. PetroVisor is used for everyday work.
- 2). Second, PetroVisor requires general skills, rather than specialized ones. PetroVisor minimizes the complexity associated with building automatic, inter-application workflows. For example, users of PetroVisor are not required to write code. Users should understand how to use a drag-and-drop interface and understand when to use logical sequences which are the building blocks for workflow automation. If a user happens to know how to code, then their skills can also be harnessed by using P#, which is the scripting language used in PetroVisor. The critical point is that coding is entirely optional and based on the preference of the enduser.
- 3). Lastly, PetroVisor can be owned by any user, rather than owned by a particular role or department. PetroVisor can be purchased, administered, and used by team members in any department, including IT, engineering, finance, or operations.



At Datagration we emphasize the phrase "knowledge automation" because PetroVisor is not focused on merely the challenges of integrating disparate data sources and applications. In fact, the standardization of data has made the integration part of automation much more straightforward than in years past. While integration is an essential first step, a significant portion of the value of PetroVisor comes from automation capabilities. For example, an entire candidate screening model can be automated i.e. continuous automated screening for underperforming wells, including KPI calculations, data analytics, problem detection, cost and risk estimation, NPV calculation and ranking of workover opportunities. A knowledge base for improving decision making is built. Thus, making knowledge automation the next frontier of innovation.

We use the word "platform" because PetroVisor offers a broad set of capabilities that are designed for company-wide use rather than solely for a narrow departmental function. We are not talking about a tool that has only a couple of application in the field.





What does the PetroVisor platform do?

PetroVisor streamlines workflows and processes that touch multiple software applications and data sources within E&P Companies. Here is a select list of the most common uses cases by each department.

Streamline business operations across the organization

Operations professionals are tasked with driving operational efficiency across the E&P value chain. With so many SaaS apps and data sources to connect a knowledge automation platform is crucial.

- M&A integration: Post M&A systems integration becomes a lot easier when you have a multi- purpose tool that can migrate data and sync data across a wide variety of systems.
- Data warehouse integration: Centralize data from any number of SaaS applications & data sources.
- BI integration: Use PetroVisor to integrate business intelligence or data visualization tools and data warehouses.
- Decision making layer on BI: Take action automatically from changes in data values from your business intelligence tool by integrating to collaboration tools like Microsoft teams.

PetroVisor, is an ops professional multi-tool. It's flexible and powerful and can be used in many ways.

Operationalize engineering processes to increase velocity

Engineering ops is a source of advantage. Teams can use PetroVisor to improve the velocity of a wide variety of workflows and processes.

- BP 1
- BP 2
- BP 3





Extend IT and empower the company

IT teams are overburdened with requests coming in from across their enterprise to integrate SaaS applications or external data sources. Use PetroVisor to address a wide variety of situations.

- Empower the business: Provide petroleum engineers, data scientists, ops managers, and dev teams with an automation tool that they can manage.
- Replace outdated middleware: Swap out end-of-life legacy middleware with a modern automation platform that both IT and business can use.

IT teams that introduce the PetroVisor platform to business users empower them to solve business challenges. IT also benefits from a platform that surpasses requirements for security, reliability, resilience, and scalability.

Make finance & economics data flow

E&P companies have meticulous accounting and economics processes that can also benefit from the ability to control the automated flow of data between applications and data sources.

- Standardize and automate IRR, NPV and other return on investment analytics get the engineers out of financial calculations that they don't understand or have the expertise to perform
- · Better OPEX and Capex planning through improved and automated field development plans
- Complete backward looking ROI analyses what was expected outcome, cost, etc. and how does that compare to actual results
- Ticketing can automate approval processes and improve efficiency for cross functional decisions

Finance professionals appreciate PetroVisor's ability to simultaneously add control to the flow of sensitive financial data from application to application as well as enable business partners with the financial information that can help them manage their business.



What are the common benefits of using PetroVisor?

Benefits of using PetroVisor vary widely depending on the use-cases in which the platform is used. Holistically, PetroVisor reduces tedious and costly manual efforts to de-silo data and make use of it. But more importantly, PetroVisor enables E&P companies to do things that couldn't be done before.

PetroVisor streamlines processes that touch multiple applications or data sources within a organization. This capability allows workflow builders to leverage their most critical software features to optimize operations in less labor-intensive ways.

In PetroVisor, data & knowledge flows between applications are controlled through simple front-end interfacing rather than through custom-built, backend integrations. This improvement makes it much easier for a company to scale its processes as the organization grows.

With PetroVisor companies no longer need to avoid buying industry leading solutions because they are not integrated into their stack. Similarly, businesses buying from megavendors can rest assured that the many disparate products offered can be automated within PetroVisor. You can consolidate the number of point solutions in your stack by adopting the PetroVisor platform. PetroVisor has abstracted many of the standard software capabilities such as conditional logic, data storage, and data formatting so that you may find a general purpose and flexible tool can replace many single-purpose applications.

Customers using PetroVisor see the platform as a way to grow faster and more efficiently. The ability to quickly build out and automate processes between disparate applications and data sources translates to greater control over workflows with less development, which is an industryagnostic benefit.

E&P companies of all sizes are embracing PetroVisor. If the company has two or more applications that contain data or functionality that is part of a more extensive business process, PetroVisor can be useful.





Worksheet

Is your E&P company ready for PetroVisor?

Use this worksheet to determine if your E&P company is ready to use PetroVisor.

For each category, select the appropriate number. If you strongly disagree, choose 1. If you strongly agree, choose 5. The numbers in between 1 and 5 correspond to your level of agreement, neutrality, or disagreement. Tally your score when you're finished and follow the instructions at the end.

To interpret your results, sum your score.

- If you scored > 30, you're ready for PetroVisor
- If you scored between 20 30, you're moving in that direction. You should consider getting started with automation very soon.
- If you scored under 20, you might not be ready for PetroVisor quite yet.

Factor	Disa 1	gree 2	3	→ Ag	jree 5
Automation can be a source of competitive advantage.					
We have one or more staff that has to regularly engage in time-consuming manual work to move data from point A to point B.					
Our company would benefit from better visibility of data stuck in different systems.					
Connecting tools and coordinating processes has the potential to improve the bottom line.					
We have two or more applications that should be integrated.					
The native integrations and APIs available to us are insufficient for our needs.					
Our desired solution requires more than a 1-step point-to-point integration.					
We do not have access to developer resources with coding skills.					
The cost of paying developers to custom code an integration, the cost to retain a team to manage and update the integration and the cost of waiting for a custom project exceeds the price to buy a general automation platform and the time to value of doing so.					



Part two: Why PetroVisor is gaining momentum among E&P companies

The widespread adoption of cloud applications and data sources is the single most significant driver of the PetroVisor's increasing momentum. The average number of Software-as-a-Service applications has spiked in the past 15 years, which has led to an increase in the number of operations professionals being brought on to act as application administrators.

Due to the current widespread use of SaaS, its competitive edge is fading. Although the value of SaaS is undeniable, even industry laggards are now on board. As a result, many E&P companies are renewing their interest in gaining a competitive edge by simplifying procedures to improve the performance of their existing apps and data.

Integration challenges

Integration challenges and a general lack of ability to automate workflows quickly and efficiently have created far too many friction points in the lifecycle of a well. Countless E&P companies choose not to go with the industry leading apps because they can't optimize for each stage of the well lifecycle.

Open API & Maker Platform Architecture

APIs are enablers of a more complete, flexible enterprise resourcing architecture that allows data and knowledge to move freely in any direction. PetroVisor helps realize this potential without creating additional complexity for users and asset leads.





Part three: How is the PetroVisor platform different?

With so many new software categories and technologies coming to market, it's easy to get confused on what software does what. Here's a summary of where the PetroVisor platform fits in the midst of everything:

In platform automation features:

Many of the latest SaaS solutions for E&P companies promise "automation" but you will find that their purview is limited to a narrower set of functions and data. Built on the foundation of knowledge automation the PetroVisor platform eliminates the limitations of point-to-point automation.

Open API Architecture:

Native integration offered by software vendors can be a decent solution for some situations. However, the more flexible the software, the less likely that native integrations will work out of the box. Software vendors can only build so many native integrations before they run out of engineering capacity. That means you may not be able to integrate all the different parts of your stack. If you have multiple native integrations, it becomes harder to troubleshoot and fix many point-to-point integrations.

Platform vs Point-to-point integration software:

Point solution SaaS solutions are often limited in scope, support, and scalability. PetroVisor is a platform that can scale from simple workflows to enterprise-level complex workflows.





Extract, transform, load (ETL):

ETL solutions typically supports batch processing of data. Sometimes this is a one-time operation or can be a schedule and recurring operation. PetroVisor can support real-time data movement as well as batch processing. Many organizations require a platform that can support batch and real-time. ETL systems do not typically have out of the box integrations for LAS, Aries, and other common legacy oil and gas software. ETLs are often managed by data warehouse team whereas PetroVisor can be handled by both data warehouse teams or by business teams that manage line of business cloud applications and data sources.

Enterprise service bus (ESB) or Middleware:

These IT-centric integration platforms that require developer resources and are perceived as complex because they require maintaining coded interfaces. ESBs don't natively understand the needs of oil and gas and are agnostic technical solutions. ESBs are typically used for application integration and managed by an integration competency center or COE. PetroVisor does not require Dev resources but has many of the capabilities of ESBs and can be deployed on-prem or in hybrid cloud instances.

Business process management (BPM):

Business process automation tools are designed for IT teams to document and create processes. PetroVisor is designed for petroleum engineers, asset managers, finance teams, and operations leads to integrate and automate processes. Because of PetroVisor's visual workflow builder and customizable labeling, there is typically no need for a separate BPM tool in addition to the PetroVisor platform.



Part four: Core capabilities of PetroVisor

The PetroVisor platform offers a wide range of capabilities and features including connecting any API enabled service, visual workflow builder, dashboards, data formatting, logs, data storage, processing scalability, multi-user access management, alerting, security compliance, and system status.

One of the most important features of PetroVisor is that does not require coding to configure or manage.



Open Ai

Makes it easy to connect any systems, apps, and data with custom integrations or pre-built connectors to popular domain solutions.



Domain Specific Workflows:

Library of workflow packages that are adaptable to any operational or petrotechnical challenge.



Economics Engine:

Creates holistic view for development optimization, drill out economics and investment opportunities.



Engineering Mindset:

Supports your engineers with standards-based tools and application frameworks for rapid workflow development.





Core Support Services:

Everything you need to create and support your automated workflows and business requirements.



Performance Analytics:

Helps drive knowledge automation and empowers users to make actionable decisions with real-time insights into patterns and trends.



Notification Services:

Delivers a user first experience, integrated with Microsoft Teams and other BI tools, simplifies how your team is notified when something important happens.



Security:

The platform ensures all your data is protected and supports your Identity Access Management needs.



Part five: The business case for PetroVisor

The return on investment from using PetroVisor includes measurable improvements in business metrics and harder to quantify new capabilities that have the potential for step-function improvements to your business.

The core business case for PetroVisor include the following:



Lower lifting costs



Better Opex & Capex planning



Standardization of data



Improved productivity

PetroVisor produces faster revenue growth due to the benefits of streamlining engineering and operations processes.

The PetroVisor Platform's sophisticated, open API automation platform is based on efficiency. Enabling engineering teams to do more with less, team members quickly become workflow automators who have the power and knowledge to integrate the services they use every day for increased innovation and ultimate return on investment.





Lower software costs:

Reduce the amount of single-purpose applications in your technology stack, and remove the concern of needing to acquire more user licenses.

Competitive advantage:

PetroVisor provides a competitive advantage by enabling engineers to develop and deploy new and more efficient workflows at scale.

Improve workflow agility:

Because PetroVisor provides a central place to manage all integrations and automation, teams can rapidly iterate on workflows.

Manage risk and security:

PetroVisor offers several levels of transparency, security, and compliance to satisfy the needs of today's E&P companies.

Faster time to value:

The typical implementation of new software and technology can take months, with PetroVisor organizations can see a return on investment in less than 8 weeks.

Increase productivity:

Eliminate wasted time by engineers on any manual process involving moving or manipulating data. PetroVisor can free up that time to be applied to more valuable tasks.



Part six: How to successfully implement PetroVisor

Create a plan to ensure a smooth roll-out of your PetroVisor. Make sure that your project includes these key components:

Workflows identified

Make sure that you have one more specific workflows selected to automate. While PetroVisor is very flexible and can do (almost) anything, you'll want to make sure that you focus on concrete outcomes that transform your business.

People

Select someone to lead and manage PetroVisor. While PetroVisor does not require a computer science degree, it's helpful to pick someone who thinks about processes logically and can break them into steps. If you have experience using spreadsheet formulas and functions you're likely a good candidate to manage PetroVisor.

Alignment

Make sure that everyone involved in a process is on-board with the changes that you'd like to make. No one likes to get surprised on a process change.



Measure metrics

Make sure you define and communicate the metrics that you'll be tracking. Knowing this will align everyone to what success will look like.

Quick wins

You might want first to tackle the most difficult or highest yielding process. We think it's lower risk to start automating less complex processes early so that you and your organization gain confidence in the platform and your skills to automate. Once you've gotten the hang of it, then move automating more complex processes.

Build on success

Once that you've gotten a series of quick wins on the board, now start looking for more processes that lend themselves to automation.





Part Seven: Positioning PetroVisor for your peers

CEO

Main Concerns:

- Innovate and outmaneuver the competition.
- Align the organization
- Deliver return on investment to shareholders

How to Align:

- PetroVisor provides a competitive advantage by inventing new and more efficient process.
- PetroVisor increases the visibility of results, tasks and benefits of automation.
- An investment in PetroVisor often showcases the ROI of investments in teams and technology.

CFO

Main Concerns:

- Empower the business to make smart financial decisions
- Control of sensitive financial information
- Managing the business to hit financial targets.

How to Align:

- PetroVisor can automate in the movement of financial data to various departments which will empower them to make smarter decisions.
- PetroVisor provides user access management so that you can specify the amount of access that any person or process has of financial information.
- PetroVisor can provide real-time data on a wide variety of signals that are leading indicators on the financial health of the business.





CTO / CIO

Main Concerns:

- Enable the business with tools and technology
- Manage risk and security
- Control costs

How to Align:

- PetroVisor is a great investment to enable your business counterparts because they can own and manage a solution that will help them run their departments themselves.
- PetroVisor provides a central point to automate processes, is better at managing data access than point-to-point native integrations.
- Because PetroVisor is typically priced on successful workflows rather than access to connectors, there is much less chance of shelfware of single use point solutions.





Overcoming Objections

Here are recommendations on overcoming typical objections to moving forward with PetroVisor.

Objection (1)

We must implement software X first, before starting this project.

Response (1)

It's possible that PetroVisor can help you be more successful transitioning to a new software. Often, you'll need to integrate that shiny new application and data source into your stack. And if you need to integrate, the PetroVisor platform can help you move data into new apps and out of old ones.

Objection (2)

We don't have the budget to move forward.

Response (2)

Use your ROI estimate provided by the Datagration team to show how the investment will pay for itself over a calculated payback period.

Objection (3)

Our CTO thinks he can build this in-house.

Response (3)

Don't underestimate the time and resources it will take to develop sophisticated integration and automation platform from scratch. The time to value will be significantly longer than using PetroVisor. Also, there will be maintenance and upgrades requiring ongoing resources. 2

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Part Eight: The future of PetroVisor

PetroVisor is spreading within E&P companies as they mature from point-to-point integration to company-wide automation.

E&P companies typically start-off by using PetroVisor as a way to solve one pain point. As their understanding grows of what PetroVisor is capable of, then we see an acceleration in the number of use cases that they are used for.

The office of the CIO is embracing PetroVisor to empower business users. PetroVisor is the only way to handle the growing volume of integration and automation requests originating from business users. IT teams aren't big enough to deliver on all the demands and that the tools used in IT are too technical and not appropriate for use by business users.

PetroVisor has the potential to completely replace legacy software. With the explosion of single-use case software over the last five years. Buyers realize that they have too many applications and are looking for ways to replace multiple software with one broader, or more generalized software that can accomplish many use cases. For example, PetroVisor users have successfully replaced drilling and completions, production, G&G, HSE, Reservoir Engineering, GIS and multiple point-to-point integration software.

🕴 PetroVisor





Conclusion

The PetroVisor Platform. The right combination of a flexible, powerful, and scalable platform.







