

# A Safer, More Efficient Oil and Gas Industry

*How software can optimize assets from  
new construction through decommissioning*



# Introduction

As the world attempts to reduce the carbon impact of its energy mix, there have been calls to make the construction of oil and gas facilities more efficient.

This journey has its challenges, chief among them market pressures to make the sector—and the construction of its facilities—more environmentally sustainable. As of 2020, the oil and gas industry’s operations accounted for around 9% of all human-made greenhouse-gas emissions, according to [a report](#) by McKinsey & Co. Moreover, the oil and gas industry produced fuels that create another 33% of global emissions.

This is where software tools come in. There is huge potential to make significant improvements during project construction, the operation and maintenance phase and, in the longer term, decommissioning.

A recent survey of Bluebeam customers found that software was making a huge difference:

 **82%** saved time on projects

 **88%** improved work quality

 **76%** increased efficiency

In this eBook, Bluebeam will outline where simple improvements can be made to drive a more efficient and profitable oil and gas industry.



*“Bluebeam streamlines the document review process by allowing us to easily mark up and annotate PDFs, reducing the need for manual printing and scanning. Additionally, it facilitates collaboration by enabling real-time document sharing and markup among team members, even when working remotely. Bluebeam also improves accuracy and efficiency in tasks such as measurements.”*

**Anna Hallstrom, Principal System Engineer, Wood PLC**

# Seamless Digital Collaboration

One of the largest gains for any organization can be made by investing in software that facilitates collaboration. In oil and gas, many sites are in remote locations and involve bringing multidisciplinary teams together, sometimes for very short periods of time.

At the design stage, an ongoing review process, including compliance checking, means that teams need easy access to drawings and the ability to coordinate feedback and changes effectively.

With skilled people in high demand, this process often needs to happen virtually.

With the right tools, people can easily work in shared, virtual spaces, providing a digital equivalent to gathering around a desk. This can happen both in real time, via online meetings or in software via joint documents, or on demand, with people working on shared files and using email, comment and chat functionality to run conversation threads.

For example, using Bluebeam allows teams to have full visibility of project information, with detailed reporting that includes automatic tracking of comments, status updates and changes. This drives efficiency and improves quality assurance throughout the project and asset lifecycle.

The process of customization and standardization within tool sets also means that organizations can tailor the way that the project works for them. With a myriad of specific factors in the oil and gas sector, this enables clear markup and analysis of documents. For example, with a piping and instrumentation diagram (P&ID), teams can easily highlight key steps within the process that need review.

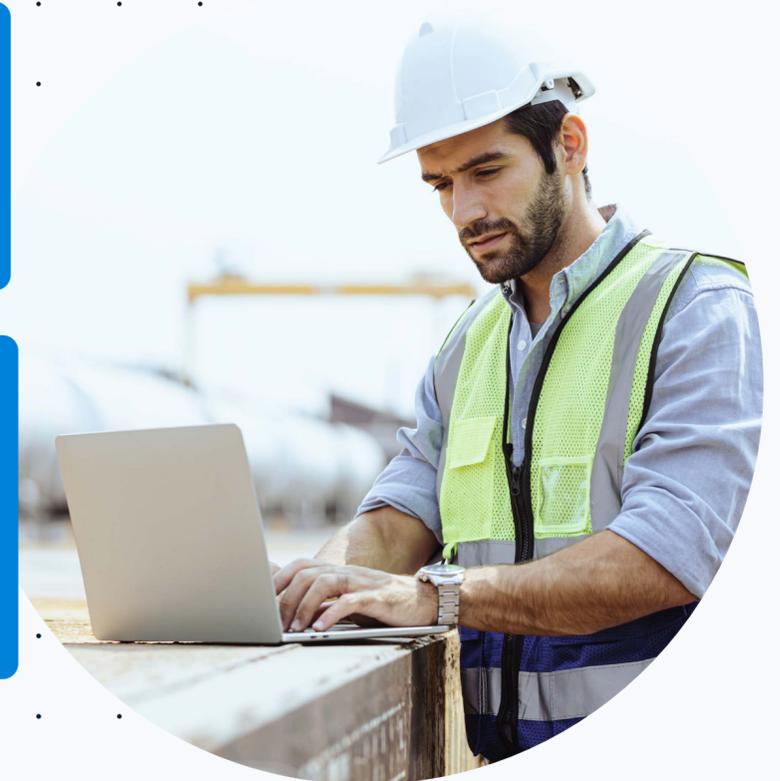
As well as improving project delivery, it also means that future projects will be completed quicker, with teams able to set up their own ways of working that suit their approach.

*"With Bluebeam, we can mark up drawings using custom settings for color, stamps and measurements, just as we would have by hand. This allows us to check things more easily. We can also digitally sign-off drawings."*

**Ian Allen, Lead Subsea Designer at Wood PLC**

*"The oil and gas industry involves a wide range of stakeholders, including engineers, contractors and regulators. Bluebeam Revu allows multiple users to collaborate on documents in real time, regardless of their location, which can help to streamline the design, construction and approvals process."*

**Chris Nicol, Technical Lead at IKM Testing LTD**



## How Bluebeam can help

- ✓ Design reviews: Speed up tasks such as design reviews (including P&ID review) by allowing stakeholders to mark up and instantaneously collaborate on the same documents.
- ✓ Assembling document and work packages: Centralize drawings, documents and data in one place so teammates can securely access, upload, review and edit the latest updates on any web or iOS device.
- ✓ Standardization of workflows: Tool Chest, profiles, custom columns and templates can be developed for specific user needs and disciplines.
- ✓ Manage RFIs: By improving communication between team members and contractors, RFIs are answered more promptly, in a clear and concise manner.

# Compliance

Compliance in the oil and gas industry is a multifaceted challenge, with regulation relating to a range of areas including the safety of workers, environmental protection and financial reporting.

There is the additional weight of public perception, with fossil fuel interests always an area of political focus.

Operators must adhere to strict standards around emissions and implement technologies that help them to quantify and reduce the carbon impact of their activities. This involves both data collection and monitoring on an ongoing basis.

Health and safety requirements are particularly stringent, and legal standards often must be met across geographical borders.

Teams need software solutions that can bring people together and make information easily accessible. This transparency is proven to reduce the risk of mistakes and rework on projects, with decision-making processes more visible.

## Where Bluebeam can help

- ✓ Document markup: Every activity is traced within Revu, including edits, commentary and changes. They are all stored and readable in one place, creating a straightforward audit trail, which helps to manage risk and ensure accountability.
- ✓ Digital dashboards: Create an easy-to-access work-package documentation repository. Users can access all the documents they need quickly, such as drawings, manuals, schedules, submittals and shared reports in a dedicated location.
- ✓ Compare documents: The overlay function enables automatic checking of multiple documents, for example P&IDs, to easily spot changes.



*"Auditing and compliance are a big issue in our industry. Bluebeam Revu also allows users to create and maintain a digital record of their documents, which can be used for compliance and auditing purposes."*

**Chris Nicol, Technical Lead at IKM Testing LTD**

*"The Tool Chest feature in Bluebeam allows us to easily add comments and symbols to documents, ensuring that the symbols are clear and unambiguous. This feature eliminates any difficulties that might arise from handwritten and scanned comments, which can often be challenging to read and may result in misinterpretation by designers. Consequently, the likelihood of another revision cycle is reduced."*

**Anna Hallstrom, Principal System Engineer at Wood PLC**

- ✓ Site inspections and monitoring: Facilitate easier site inspections by enabling simple markups against existing documents and drawings, ensuring that everything is in one place and accessible by teams.
- ✓ Create an audit trail: Information is clearly logged and attributed to user profiles, enabling easier checking for decision-making and project history. Comments and changes are time stamped, so there is full traceability and accountability for all users.

# Accelerating end-to-end processes

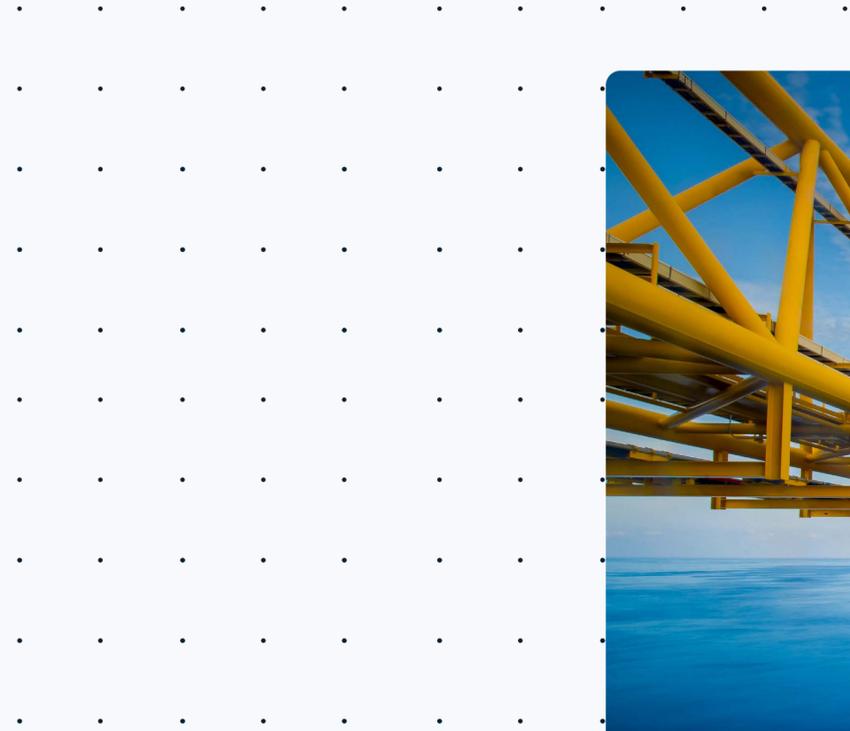
Oil and gas construction is a 24/7 process, with projects taking place over several intensive weeks. Every lost day on a project adds cost and risk. Add in the relative volatility of oil pricing, and any inefficiencies can have a large negative impact on the bottom line.

Software can streamline projects, increasing the speed of common tasks such as leak tests, line walks and P&ID reviews, as well as estimations, site logistics and handovers. This reduces the risk of delays, with key information easily surfaced and accessible.

With projects often in remote locations, software also ensures that construction project teams are kept up to date from anywhere, saving time and money on travel costs and ensuring that the right people can be brought together virtually, whenever they are needed.

## How Bluebeam can help

- ✓ Customizable tools: The ability to set up custom tool sets, as well as adding photos, notes and hyperlinks, enables the creation of accessible, live documents that teams can use consistently.
- ✓ Work anywhere: Users can share information with project partners regardless of physical location, via web or mobile devices.
- ✓ Templating: Important processes can be set up within a standardized workflow to ensure consistency and increase speed and efficiency.



*"I can manipulate documents in Bluebeam by extracting, inserting, marking up and commenting at a far superior pace to that of other software used currently by our team. The OCR is a fantastic tool that I have used to read old spec sheets and scanned files, making them searchable [and] giving significant time savings. Creation and use of custom tool sets will give more consistency across our team by using the same tool sets."*

**Craig Reid, Turnaround and Outages Execution Specialist at Oil & Gas Operator**

*"Bluebeam Studio has changed the way our international team works together. Our ability to quickly share and track comments has had a direct improvement on the quality of our work."*

**Brian Highfield, Terminals and Pipelines Engineering Manager, Burns and McDonnell**

# Ongoing asset management

Once projects have been completed, teams need to manage the asset. For some maintenance and repair works, sites may need to shut down. This means that speed is of the essence, which is something that technology can help with.

With Bluebeam, teams can easily review site plans, mark them up with any issues and add supporting visuals.

This can be used to keep up-to-date records of service, maintenance, upgrade or replacement schedules for plant, systems and components. This helps with ongoing improvement works but also with compliance checking against key areas such as safety standards or energy sector-specific legislation.

Because these systems work in the cloud, documents can be accessed from a desktop and via any web, Apple iOS or Android device, making it easy to carry out regular checks and update records as and when required.

## How Bluebeam can help

- ✓ Standardization of documentation: Templates and workflows ensure consistency and increase speed and efficiency.
- ✓ O&M manuals: Create accurate records of your onsite assets, with searchable operations and maintenance (O&M) manuals, helping your team to easily access critical building information when they need it.
- ✓ Site coordination and management: Access Field Tools to manage and track details of a site inspection and record assessments immediately, improving efficiency and accuracy.
- ✓ Contribution to digital twin: Asset information and history is easily accessible, searchable and shareable. As a PDF-based tool, compatibility with other tools is not an issue.

**The right software can help oil and gas companies work more efficiently and competitively.**



**To find out how Bluebeam can help you on your journey**

[Click Here](#)

