

ENGINEERING & PRODUCT DESIGN

Why Leading Companies Partner with IHS Markit

To Access Standards, Codes, Specifications and Essential Technical Reference Content

Every day thousands of companies worldwide mitigate risk and gain competitive advantage by giving their engineers, researchers and other technical professionals access to standards, codes, and other essential technical reference content through Engineering Workbench.

IHS Markit is the leading global source for critical engineering and technical reference, all brought together within a unified user interface in Engineering Workbench to accelerate research, problem solving, and innovation.

World Class Standards and Technical Knowledge Management

IHS Markit simplifies and expedites the process for discovering, using and managing standards, as well as the related reference content that engineers need to ensure they are correctly implementing the requirements of codes and specifications. Whether your organization requires a single collection of standards, documents from multiple standards development organizations (SDOs), or any combination in between, IHS Markit offers a powerful, intuitive standards management solution with the flexibility to meet your needs.

Engineering Workbench offers companies a single "system of record" for standards, with controlled document retrieval and notification of revisions for individuals and teams, helping ensure compliance to industry requirements and quality initiatives, as well as improved uptime and operational efficiency.

Key benefits of using Engineering Workbench include:

- **Reduced risk** through assured compliance with latest industry requirements and best practices.
- **Increased productivity** through single-source desktop and mobile access to industry standards collections – instantly, where and when needed – along with a host of advanced productivity tools.
- **Better cost management** through the elimination of duplicate or maverick purchasing, as well as collections that save valuable budget dollars.

Reducing Risks

Adopting a world-class standards management solution like Engineering Workbench can help organizations reduce risks related to the proper adoption and application of standards across the enterprise, including:

- Eliminate potential quality issues that lead to rework.
- Remain compliant for audits – decrease or eliminate corrective actions.
- Ensure safety – helps mitigate potential hazards.
- Reduce personal and corporate liability.

Assurance of standards copyright compliance

Only IHS Markit has partnered with standards publishers for more than 45 years to provide their publications to the engineering, research, and scientific communities. These longstanding relationships give you the assurance of compliance with the SDOs' copyright requirements when you use Engineering Workbench. At the same time, compliance is simple and unobtrusive, and does not impede a user's workflow: Users simply accept each SDO's copyright terms the first time they view a document from a given organization within each online session. Documents are watermarked for further assurance when printing a document is necessary.

Increased Productivity

Search and Navigation

Engineering Workbench simplifies and accelerates the process of finding a needed standard document by incorporating a single "Intelligent Search Box" that automatically distinguishes between a document number and keywords. When a user enters "ISO 9001," the type-ahead search feature recognizes the document number and automatically suggests the ISO 9001 standard. This allows the user to click through to the document directly without having to execute the search.

On the other hand, if the user doesn't know the exact document number and enters keyword search terms instead, such as "quality management system requirements," the type-ahead feature will intelligently suggest standards that match the terms, again allowing single-click access to the required document.

For more complex keyword queries, search results are ranked in order of relevance. Convenient search facets allow the user to refine the search by publishing organization, publication year, and so on, so the user can quickly and flexibly drill down to the needed standard when the exact document number is unknown.

"Power users" are able to take advantage of Advanced Search capabilities to refine their searches using a combination of up to a dozen different fields, for example, "ISO" in the publishing organization field, and "quality management requirements" in the title field. A query builder tool allows the use of Boolean operators, grouping of terms, and order operations logic to build complex queries, as well as the ability to include or exclude search criteria.

The **Research Assistant** tool in Engineering Workbench allows users to quickly navigate to the standards they need to address a particular technical challenge when they don't know what documents are applicable. Research Assistant creates information workflows that guide you – much like a subject matter expert – through large bodies of information to the most relevant search results.

Simplified Search

- Single search field for all searches
- Type ahead search suggestions
- Popular document suggestions
- Search facets

Advanced Search Tools

- Query Builder
- Include or exclude search criteria

Research Assistant

- Discover knowledge through textual OR graphical exploration

Search Personalization

- Set your unique preferences
- Save Recent Searches—one-click to re-execute

The Engineering Workbench platform also offers ample opportunities for personalization that can save time and help users become more productive. For example, users can save complex search queries to their home screen area in Engineering Workbench and then re-execute the searches again directly from the home screen with a single click. Alerts can also be set for search queries: for example, a user who wants to track new standards around nanotechnology could set an alert and be notified as new documents related to this field are published.

Therefore, Engineering Workbench provides standards users with powerful ways to discover and access required documents quickly and efficiently, along with the ability to do complex research to discover the standards you need to address complex technical challenges.

Workflow Optimization

The productivity tools in Engineering Workbench include the Document Viewer. The viewer allows a user to open up a document directly within Engineering Workbench without having to download the PDF or launch a browser plug-in to view the PDF. The viewer "streams" documents page by page, rather than opening the entire document all at once. This means that a user can get into the document almost instantly without having to wait for the whole file to load – a particularly noticeable improvement when viewing lengthy documents. Of course, Engineering Workbench supports PDF download for those users who want to use a standard document offline.

Engineering Workbench simplifies navigation within standards, too. The Table of Contents feature allows users to browse through a large document and jump directly to a specific section of the document. Engineering Workbench also makes it easy to search for a specific phrase within a document.

A user working in Engineering Workbench can quickly review the revision history of a standard, view or click through to other standards referenced within a document, and even view other standards that reference the document being reviewed. In addition, Engineering Workbench adds a dynamically generated document summary describing the standard's contents. The summary can be translated automatically into several major languages, or exported for use in other applications.

As noted above, Engineering Workbench offers ample personalization capabilities, which extend to the way that users can interact with documents inside the solution. For example, users are able to bookmark a document – or specific sections in a document – for later reference, and even "pin" a bookmark to their home screen or save it to a "Project" folder. This allows engineers to be very precise about how they access the content they use on a continuous basis.

Faster Document Viewing

- Opens online quickly –1 page at a time
- No waiting for download
- View secure documents plug-in
- Retrieve full PDF to print or save

Easier Navigation of Documents

- Navigate using Table of Contents
- Jump to a specific page
- Easily search within the document
- Review summary & revision history
- Link to reference or equivalent docs

Personalize Your Documents

- Create Annotations on or within
- Bookmark documents, pages, passages for quick access
- Add to Projects

Similarly, users can add Annotations to an entire document or to specific sections within the documents. These Annotations also can be pinned to the home screen, saved as part of a Project or shared with others on a team.

Together, Bookmarks and Annotations help ensure that both individual and "tribal" (or team) knowledge is preserved within an organization. These, along with the other enhancements described above, allow engineers to access needed information more quickly and organize their documentation in a way that makes sense to them and best supports their daily workflows.

Managing Standards

Engineering Workbench provides tools for users to manage standards and related documentation, including the Projects capability, which allows engineers to save and share related documents, Bookmarks, Annotations, and other information in a unique project folder for later reference.

For example, standards can be saved alongside references from eBooks or journal articles that describe how to implement the standards' requirements. Members of a project team working on a particular subassembly can share a project folder so they have a common knowledge base for the life of the project. Or an engineer can use a project folder to share materials related to a particular problem with colleague to seek their advice on how to solve the challenge.

Tools to map documents to Workflow

- Create Projects as a central repository for information (documents, bookmarks) to share with project teams and individuals.

Personalize your Experience

- Pin Projects and Bookmarks to your personal home screen
- Manage your full portfolio through My Workspaces

As described above, the ability to "pin" bookmarks, projects, saved searches and other information to the user's home screen makes it easy to access documents quickly and easily. Engineering Workbench also provides the **My Workspaces** tool for managing a user's portfolio of saved content, so engineers are always in control of their personal information space within the platform.

Better Cost Management

One source for the information you need

An Engineering Workbench standards subscription provides comprehensive online electronic document access to users worldwide – eliminating the need for a combination of paper, individual document delivery, or multiple portals to users.

Collections are available via a single intuitive interface, ensuring ease of use and broader adoption across an organization, further promoting compliance and data integrity. Furthermore, providing access to ALL the standards your organization needs helps eliminate duplicate or "maverick" purchases of documents by separate individuals, departments and libraries.

Flexible content options

IHS Markit partners with you to design the optimum content collection that best meets your standards requirements and your budget. You can select from entire publishers

collections, subsets, packages, industry-specific collections, and even custom document collections:

- IHS Markit is the only aggregate subscription source for more than 130 SDOs, with bibliographical records for over 370 publishers.
- IHS Markit has exclusive subscription rights to many SDOs, including ABMA, AIA/NAS, AISC, AWS, CEA, Delphi, ECIA, EEMUA, EIA, GM, HPS, IPC, ISA, JAA, Navistar, PFI, PIP, PIA, and TIA.
- IHS Markit is a primary distributor for AGMA and EUROCAE.

Beyond Standards

In addition to standards, codes and specifications, IHS Markit offers access to a wide range of essential technical reference content for engineers, researchers and other technical professionals. By offering access to an extensive array of information through a single interface, Engineering Workbench accelerates technical research and problem-solving, reducing time spent looking for information by 30% or more.

Applied Technical Reference

Knowledge Collections is a comprehensive online library of 10,000+ authoritative engineering and technical reference documents from the leading publishers – aggregated, accessible and curated for you in one place.

Engineering Journals, Reports, Best Practices & Other Vetted Technical Reference, including Trusted Web Content

The Expert Index Collection is an extensive collection of engineering and technical reference content from vetted sources, including more than 75 million technical articles, publications, reports, design principles/best practices, and over 100 eBook titles – aggregated and readily accessible in one place, to help engineers, scientists and other technical professionals quickly make the best decisions.

Patents & Patent Applications

The Patent Solutions from IHS Markit offer a rich collection of more than 60 million patents and patent applications from key global markets, published in the original languages.

ASME Boiler and Pressure Vessel Code

IHS Markit provides easy access to the ASME Boiler and Pressure Vessel Code via Engineering Workbench. In addition, only IHS Markit provides the IHS ASME BPVC Advantage portal with advanced access and features for finding, managing, and sharing critical BPVC information. BPVC Advantage offers:

- HTML format – with hyperlinks.
- Version Comparison – color-coding shows changes between versions.
- Keyword Search – search across the entire Code or by section.
- Annotations – add notes within the Code text for knowledge sharing.
- Access to Electronic Stress Tables.

Additionally, ASME BPVC customers receive access to historical Code versions from 1998 forward for the sections to which they subscribe. Additional historical content from 1971 forward also available.

Advanced Research, Problem-Solving & Analytics

A range of powerful tools, built from the ground up to help engineers and other technical professionals achieve sustainable productivity improvements, solve problems better and faster, and out-innovate the competition.

- Patented semantic technology that extracts answers from data regardless of location, type or language
- Problem-solving and ideation tools, including Root Cause Analysis, Value Engineering and TRIZ
- Access to innovation consultants with broad experience in knowledge management, engineering, product development, materials science and systems deployment

The IHS Markit Commitment to Excellence

Quality Assurance and Quality Control

IHS Markit has a deep commitment to content quality. We understand that our customers rely on the information that we provide, and we have taken many steps over the years to ensure that we meet or exceed our customers' expectations.

IHS Markit has established metrics for what we refer to as the "Four C's" of content quality – Currency, Correctness, Completeness and Consistency – and we are continually striving to improve against these metrics.

- **Currency** – delivering new and updated content in a timely manner.
- **Correctness** – validating data accuracy relative to external reference points.
- **Completeness** – providing the right data attributes and analysis.
- **Consistency** – ensuring standardized identities, definitions, and content across databases and products.

Worldwide Support

Direct on-site support is available in 45 countries to support global operations.

An Account Executive is assigned to your account to collaboratively work with you to ensure IHS Markit is delivering the best-value solutions, and to manage evolving and changing requirements.

A Customer Solutions Advisor is assigned to your account to provide in-depth product knowledge and account support. Your CSA also provides continuous training and assures timely resolution of customer queries.

IHS Markit has three regional Customer Care Centers of Excellence (COEs), in locations selected based on customer needs, time zone coverage, and language coverage:

- Englewood, Colorado USA (Americas): Spanish and English
- Penang, Malaysia (APAC): English, Chinese (Mandarin), Japanese, Malay, Tamil, and Korean
- Bracknell, UK (EMEA): German, Spanish, French, Italian, English, Russian, Greek, Vietnamese, Latvian, Assamese, Yoruba, Hindi, and Bengali

These centers are staffed with highly knowledgeable Support Specialists who provide product assistance to maximize your value from IHS Markit products. Based on your

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individual Customer Service Plan, we can help you use our products more efficiently, provide document and research assistance, resolve system or access issues, and answer your subscription questions. We provide customer support to help you succeed.

Customer First Commitment

For over 50 years, IHS Markit had helped customers harness the power of information to improve their business results. The IHS Markit mission is to provide our customers with the technical information, tools, and operational and advisory services necessary to help them make critical business decisions, maximize their core business processes, and improve productivity. We provide the solutions that help drive your business success.

Next-Generation Standards Management

Featuring vetted content from top publishers, Engineering Workbench facilitates the discovery, use, and management of standards. Combining content, search, analytics, and an array of tools tailored for the technical professional, this solution allows users to access a plethora of resources via a single interface and sign-on.

This allows knowledge workers to quickly locate information within a single context, save that information, refine their searches, and create a personalized workspace they can return to time and time again. Using specialized workflow and problem-solving tools, Engineering Workbench specifically addresses the needs of the technical enterprise and allows engineers to analyze the content and draw intelligence from it.

By bringing together content, tools, and analytics, Engineering Workbench has become the best-in-class standards platform available in the industry today. In an ever-changing world of standards, Engineering Workbench is a step forward for companies that want to drive competitive advantage from their ability to work smarter, be more productive, and intuitively manage technical knowledge.

There are other providers of online subscription access to standards. But, with Engineering Workbench, you're tapping into the most comprehensive standards database available, backed up by a powerful set of management tools, world-class support, and the IHS Markit commitment to quality. The advanced features in Engineering Workbench make it easy to find, navigate and manage the standards, codes, and specifications that drive your business success.

Contact us today to learn more about how IHS Markit can partner with you to meet all your requirements for access to standards and other essential technical reference.

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