



MANAGING THE CHAOS OF DOCUMENT CONTROL

Drive Process Over Platform



INTRODUCTION

“Document control is key to any business. It is a crucial element to ensure efficiency, performance, reliability, traceability, quality and safety.”¹



Documents and digital content are the only true constant through every phase of every project in the Architecture, Engineering and Construction industry. From the first sketch on a napkin to the volumes of building information turned over to facility managers, documents provide a rich history of project conceptualization, design iteration, and the symphony of contractors building an amazing structure and the as-built conditions that set the stage for the longest and most expensive part of the building's lifecycle.

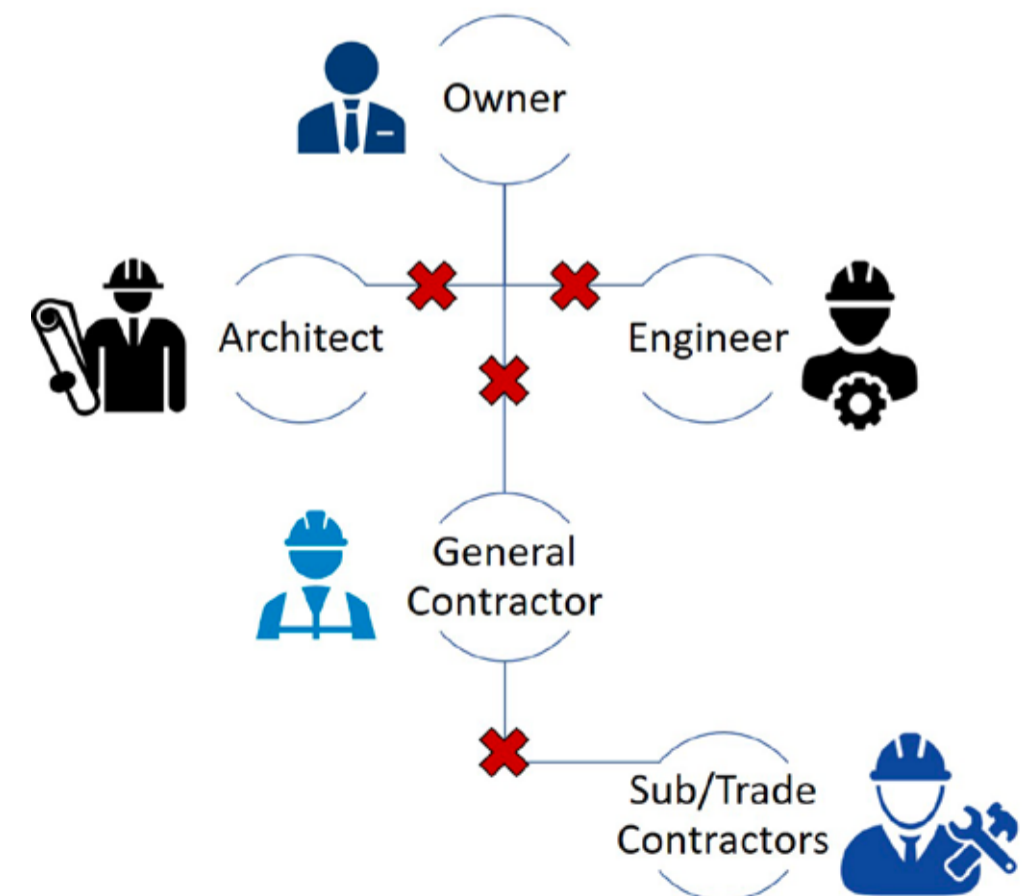
Whether it is planning, programming, design, build or closeout, when it comes to meeting the challenges of controlling, distributing and tracking all the authoritative content used on a project, owners, design teams, and contractors all have a common goal to:

- End Content Chaos
- Drive Interoperability
- Reduce Risk

While all the stakeholders share this common goal, they also understand to drive user adoption that any document control solution must work with multiple systems, it must be simple to use and scalable to any size project.

*"What makes construction complex is not the complexity of the building, it's the number of people that are required to work together to make it happen"*²

- Nathan Wood, Executive Director, Construction Progress Coalition



1: What is Document Control? - Consepsys

2: Construction Progress Coalition - How Can You Support Open Data Standards in Construction?

WHAT DRIVES THE CHALLENGES OF DOCUMENT CONTROL?

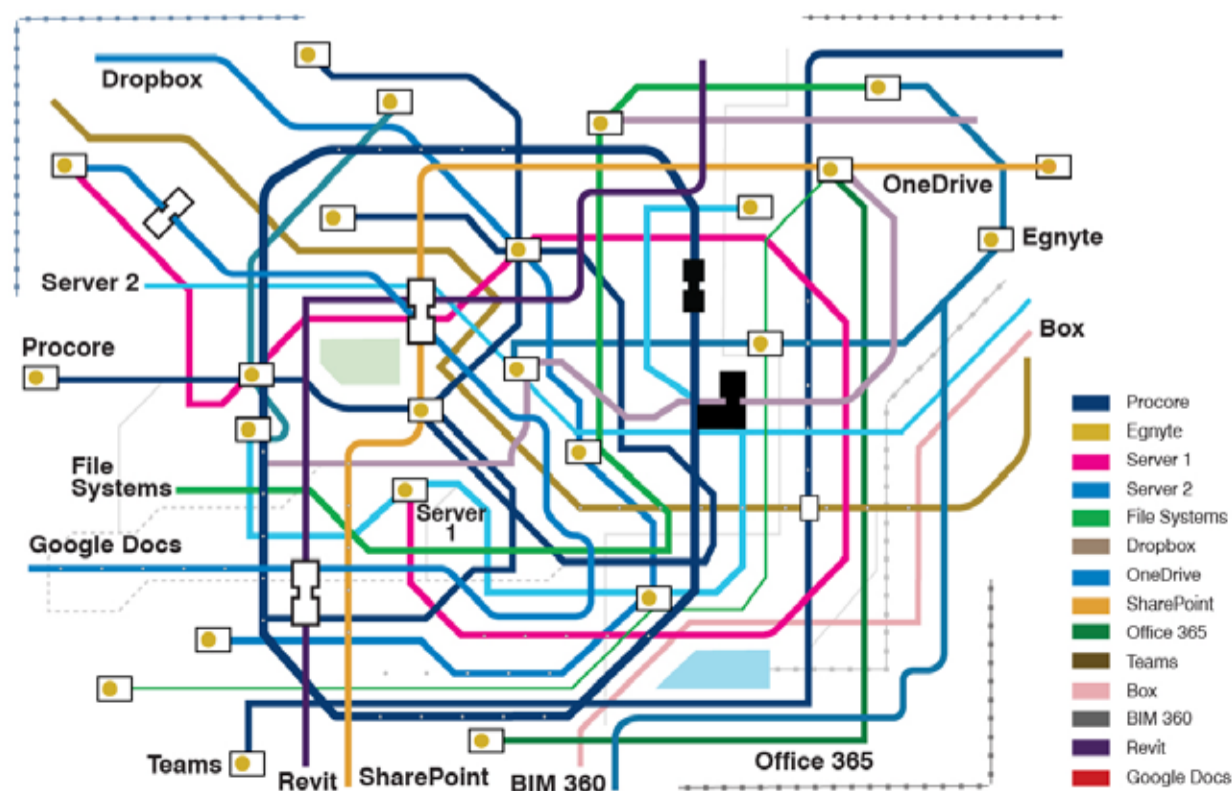
Content Chaos

“For engineering projects, document control is a big deal. Nobody has time to rework a design or report because a reviewer received the wrong copy, or document versioning wasn’t kept up to date.”³

AEC projects are inherently chaotic with multiple organizations designing and building in multiple locations with a jobsite that changes every day. Further intensifying the chaos for document controllers are content silos created by design and build teams who author content in their role specific tools like Revit, AutoCAD or Microsoft Office, and then store the content in their complementary repositories like BIM360, SharePoint or Box. With all these variables, the amount of collaboration required to effectively and efficiently inform project teams exponentially increases the chaos as the teams grow.

Project teams are left asking themselves:

- Where is the content we are looking for, did it get saved or saved to the right place?
- Is it on the Project Engineer’s hard drive, stuck as an attachment in an email in the PM’s Outlook?
- What step in the approval process are our contractually required documents?



Unfortunately, email is too often used as the primary project communication tool trapping important documents and content package approvals in an uncontrolled wasteland. Determining ball-in court on approvals and versioning on documents becomes nearly impossible. Without an easy way to register the content received via email into a project centric file storage, teams are unable to train to repeatable process. Lack of process only adds to the chaos.

Compounding it all is scale. As projects progress and the number of teams grow, process becomes even more important. [Nathan Wood](#), Executive Director, for the Construction Progress Coalition spells it out clearly, "What makes construction complex is not the complexity of the building, it's the number of people that are required to work together to make it happen"⁴

FMI’s Technology Practice leader [Jay Snyder](#) drives the point home even further. "In recent research commissioned by our client PlanGrid for our joint Construction Disconnected publication, we found that 35% of a construction professional’s time is spent on non-optimal activities including looking for project information, conflict resolution and dealing with mistakes/rework. Poor document control and access are certainly a significant contributor to all of these non-optimal activities."⁵



*Source - Construction Disconnected - FMI with PlanGrid⁶

A system that drives process over platform to task, track, approve and provide visibility on project content is the best way to bring order to the chaos.

3: How to Implement Document Control - ProjectEngineer
 4: Construction Progress Coalition - How Can You Support Open Data Standards in Construction?
 5: Snyder, Jay. Personal interview. 8 Aug. 2019
 6: Construction Disconnected - FMI with PlanGrid

WHAT DRIVES THE CHALLENGES OF DOCUMENT CONTROL?

Interoperability

“With massive amounts of information generated during the life cycle of large-scale construction projects, interoperability among project stakeholders’ information systems is a requirement for effective and timely communication, collaboration, and information exchange, and ultimately for project success.”⁷

Interoperability between multiple company systems on the project team is a lofty goal in the industry with few examples of successfully improving productivity and reducing duplicate effort. Owners, architects, engineers and specialty contractors often find themselves required to work inside a platform specified by the project’s prime or general contractor. While this helps to manage data and content for the entire project, the platform does not help these organizations drive process and efficiency within their own operations. This is especially true when working for multiple GCs with different platforms.

Interoperability starts at home and is available today for internal project teams. According to the [2018 JBKnowledge Construction Technology Report](#), over 50% of construction companies reported having two or fewer software solutions that integrate⁸. Additionally, *Construction Executive Magazine* states, “In AEC, it’s common to find construction professionals either using one end-to-end solution that frustrates them, or using several siloed applications that don’t allow for an open, but secure, exchange of data.”⁹

Snyder presents an alternative in his *FMI Quarterly* article Building a Capable Technology Stack, “Tech stacks built as a system of systems. . .take a bit more work to put together but offer a level of customization and flexibility that all in one solutions can’t match.”¹⁰

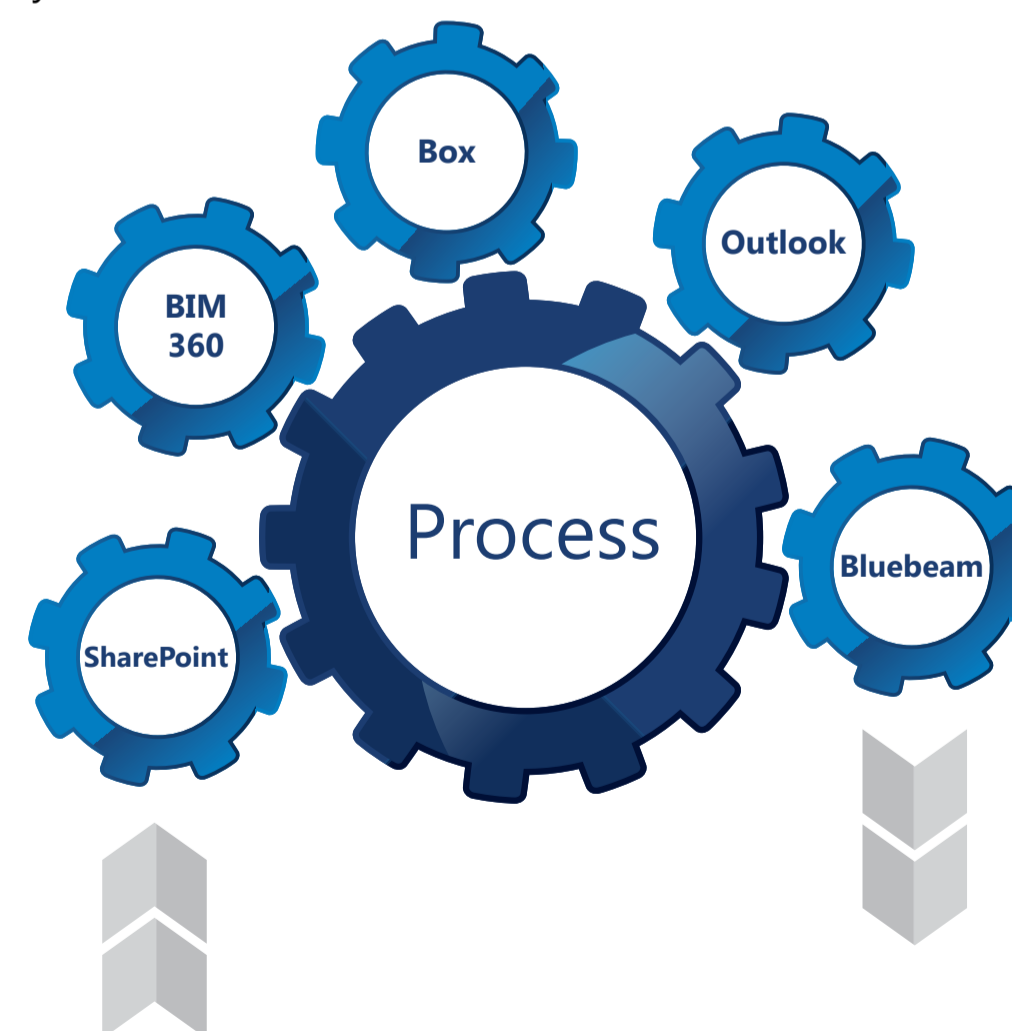
Within the context of document control, integrating role specific content storage tools like BIM 360, SharePoint and Box with project centric, permission-based access is not just a goal, but a reality. Integrating systems, however, is only half the battle. The unified toolset should facilitate repeatable, trainable processes to drive productivity in an otherwise unstructured workflow. Automatically provisioning content libraries across systems around a common project ID is the key to transforming an integration into true interoperability.

Risk

“Mismanagement of documentation can have serious consequences. Document Control is critical to ensure safety of operations.”¹¹

Anyone working within the AEC knows that when documents are miss-handled or missed all together, the key metrics of measured success – budget, time and quality-- are at a risk. Project costs quickly escalate from rework due to poor document control. Missed deadlines caused by incomplete document approval workflows disrupt coordinated schedules and trigger financial penalties including liquidated damages. Beyond cost and schedule impact, mismanaged document control exposes everyone to the risk for potential litigation. Proper document control is critical to safety as well. Mismanagement of documentation can have serious consequences not just to those in the office, but to those out in the field as well.

What is needed to bring order to this chaos, and mitigate risk is a process driven solution that makes it easy to store and therefore find project centric content. A system to task and create document packages from multiple repositories and securely distribute the content for approval with ball in court visibility and an auditable record.



7: Improving construction industry process interoperability with Industry Foundation Processes - ScienceDirect

8: 2018 JBKnowledge Construction Technology Report

9: Why Interoperability in Construction Technology Matters - Construction Executive

10: Building a Capable Technology Stack - FMI

11: Control of Documentation & Safety - ConsepSys

HOW TO STEER THROUGH THE CHALLENGES OF DOCUMENT CONTROL:

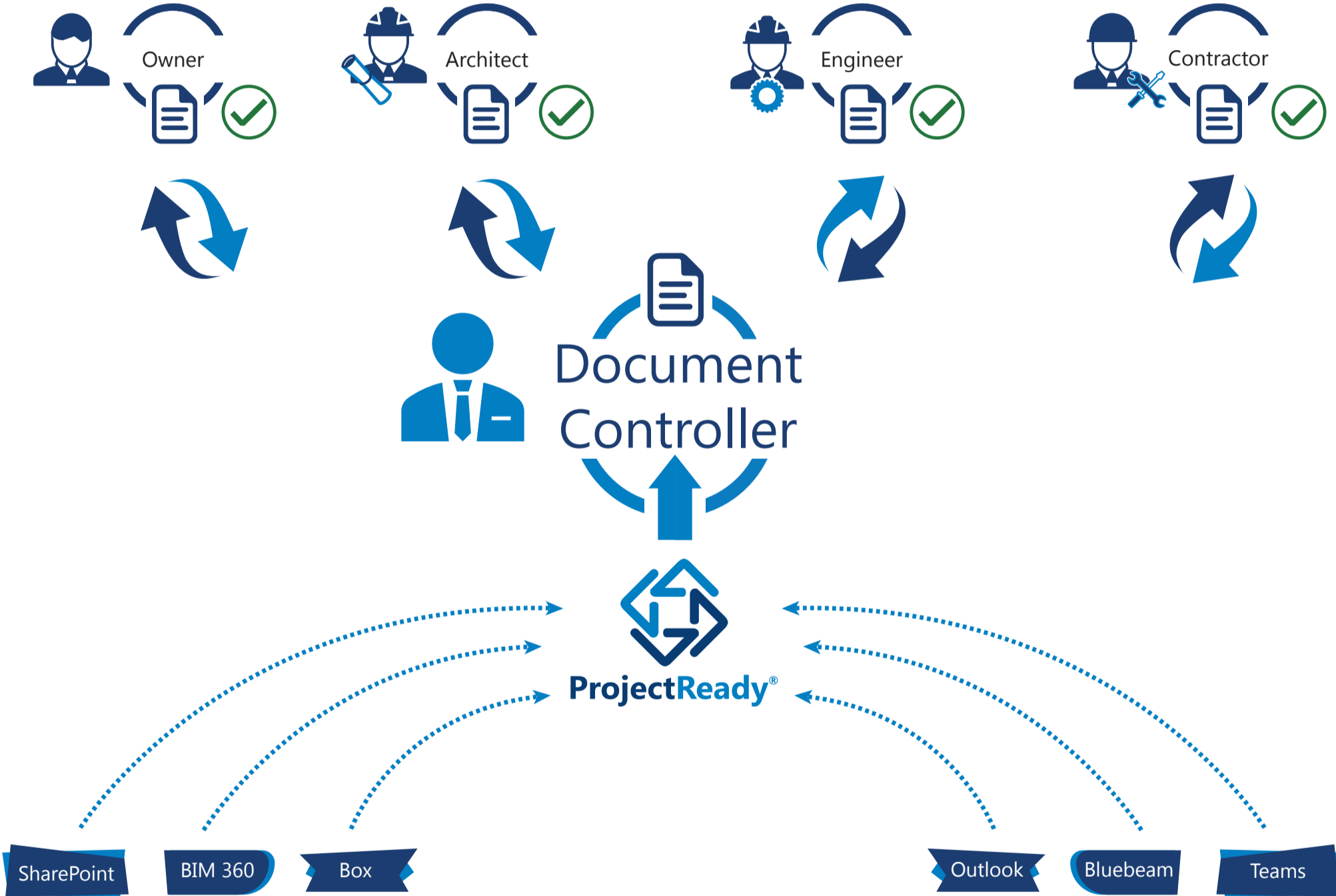
Reducing chaos, driving interoperability and mitigating risk in document control requires an intuitive user experience that connects project workflows across role specific tools.

ProjectReady accomplishes this by facilitating collaboration through connection in a single context – the project.

Scalable, easy to use and priced for value, ProjectReady's DCNext creates reusable, automated standards that drive uniform process and control across systems users already own. DCNext leverages existing investment in Office 365, by automatically provisioning SharePoint and Microsoft Teams for each project ID creating a central point of project collaboration and document sharing with a simple, intuitive solution. DCNext also automatically provisions BIM 360 and Box around the same project ID allowing users to store content in their platform of choice.

With all systems brought together by ProjectReady, submittal, RFI and other document control processes are all in context of the project. This context helps eliminate the 35% of time wasted looking for the right content, dramatically reduces the risks of missed deadlines, and drives accurate tracking and reporting.

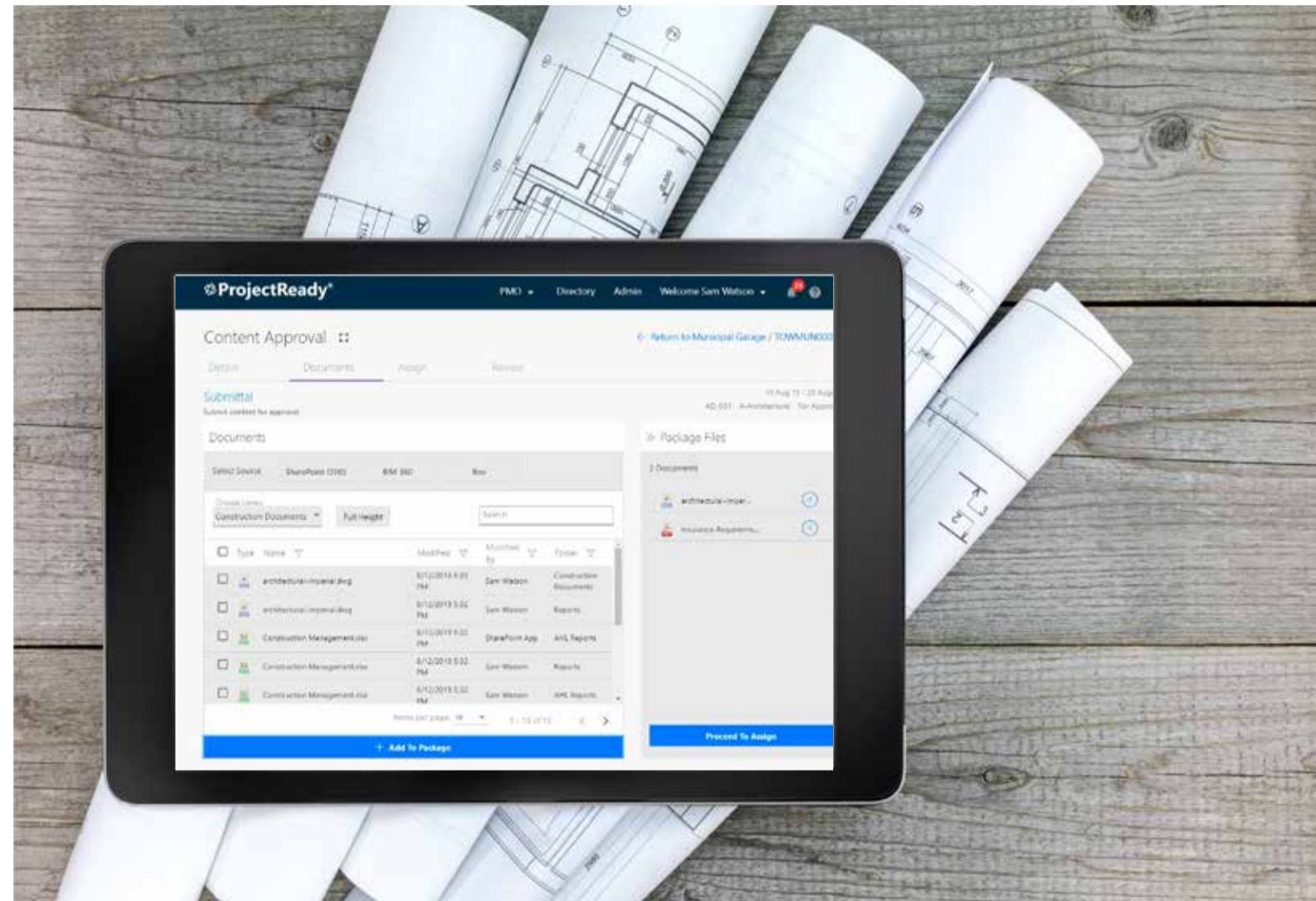
ProjectReady integrates SharePoint, BIM 360, and a growing array of connections to other systems, to allow users to register content, review content, and submit content for approval with automated logging, reporting and cover sheets for full visibility into your process.



HOW TO STEER THROUGH THE CHALLENGES OF DOCUMENT CONTROL:

ProjectReady delivers the promise of the cloud with a secure solution that empowers users to:

- Automate the creation and connection of the platforms your team needs to create, work, and collaborate on content (SharePoint, Autodesk BIM 360, Microsoft Teams & Box)
- Create, distribute and track document control communications and approvals across connected systems (SharePoint, Autodesk BIM 360 & Box), quickly, easily and remove redundant and inefficient manual processes
- Eliminate the time spent (and wasted) on finding the right project documents, with the correct version across systems
- Manage RFI's and Change Order requests directly from Outlook
- Gain visibility and auditability (Track, Log & Report) across the lifecycle of document control communications
- Automate the generation of Cover Sheets & Transmittals
- Group and assign project documents for easy review and approval by project stakeholders inside and outside your organization
- Establish project centric communication standards using Microsoft Teams that are consistent, reliable, and repeatable across every project throughout the enterprise



Conclusion

Document control is often taken for granted but it is one of the most important variables in ensuring AEC teams deliver projects on budget, on time and with the highest quality. For this reason, it's essential that teams use the systems best suited for their role. When teams can apply repeatable processes across these systems involved in document control, it reduces chaos, drives interoperability and mitigates risk. ProjectReady drives process over platform reducing costs, extending value, and bringing team members together so they can focus on what matters – the project.

READY TO TAKE YOUR DOCUMENT CONTROL TO THE NEXT LEVEL?

Contact ProjectReady and Learn how to deliver value and ROI across the best-of-breed platforms you already own and drive incredible efficiency in the creation and approval cycle of critical correspondences; transforming that process from hours to minutes.

Contact Us



www.Project-Ready.com

Check Out our On-Demand DCNext Video Demonstration 

