

Altium[®]

A Smarter Way to Manage Electronics Development

How Engineering Managers Can Regain Control
with Structured Collaboration

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With Great Success Come New Challenges

As electronics teams grow, coordination becomes the limiting factor in delivering successful products. Engineering managers are no longer responsible solely for overseeing design execution. Instead, they must align people, processes, and data across multiple disciplines, each operating with its own tools, priorities, and workflows.

This shift brings a new level of complexity. Electrical, mechanical, software, and supply chain teams must work together in ways that were not required when teams were smaller and projects were simpler. As a result, delays, miscommunication, and rework become more likely. The shift is inevitable, not caused by a lack of talent, but because the system used to coordinate work cannot keep up with the requirements of coordinating a larger team.

This whitepaper explores how organizations move beyond informal collaboration toward structured, connected workflows that provide real-time visibility. It outlines how this shift enables engineering managers to reduce risk, improve predictability, and regain control as their teams scale.

The Growing Complexity of Electronics Development

Modern electronics development connects multiple domains, each contributing to the quality of the final product. System engineers create requirements, electrical engineers develop schematics and PCB layouts, mechanical engineers ensure mechanical fit and thermal performance, software teams implement embedded functionality, and supply chain specialists manage component availability and cost.

These functions must not operate in isolation. Every decision in one domain impacts another. Component choices impact thermal constraints. Mechanical adjustments can impact PCB layout. An unexpected supply chain disruption can force design changes late in the process. All decisions must be traced back to verify the design requirements.

For engineering managers, this creates a challenge of visibility and coordination. Work is no longer sequential. Instead, it progresses through overlapping cycles of iteration, feedback, and adjustment. Maintaining alignment across these moving parts requires significantly more than traditional project management techniques from a simpler time.

Where Coordination Begins to Break Down

In the early stages of a company or project, communication is informal. Team members share knowledge directly, decisions are communicated quickly, and everyone operates with a shared understanding of the work.

However, as teams grow, this informal model no longer scales. Communication becomes fragmented, and information starts to scatter across multiple systems and formats. Engineers spend increasing amounts of time searching for the latest version of a design, clarifying requirements, or confirming ownership of tasks.

Over time, these inefficiencies compound. Feedback is duplicated or lost, integration issues are discovered late, and decisions are made without full visibility into their further impact. What begins as a minor inconvenience eventually leads to missed deadlines, increased costs, and diminishing confidence in delivery schedules.



The issue is not the communication itself. It is the absence of structure and connection between the elements of the development process.



A Closer Look at the Specification Phase

The breakdown often starts at the very beginning of a project, during the specification phase.

Very often Engineering Managers are personally involved in defining system requirements or these design definition tasks happen under their close supervision. Typically, a company's product strategy is directly linked to the important requirements decisions made in this step. Requirements from potential customers or product ideas from internal stakeholders like the Product Management team are collected and refined into specifications, so that the design team is ready to start product development with a clear understanding of what the product must do.

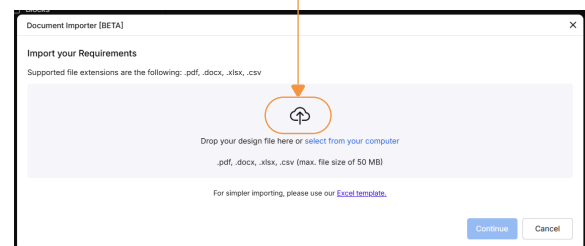
Teams usually trace design requirements through a combination of spreadsheets, documents, meetings, and email communication. While this approach may seem sufficient at the beginning, it quickly becomes cumbersome when looking at the complete development flow. Requirements stored in documents are difficult to track and update. Changes are not clearly communicated, and there is no consistent way to link those requirements to the design work for verification and validation. As a result, teams often operate with incomplete or outdated information.

Altium Agile Teams provides an easy way to gather all project data from different sources and bring it into its requirement management system. Requirements may describe detailed and diverse characteristics of a product. They may be mechanical requirements as simple as width, height, length of the enclosure or as complex as the dynamics of a drone. Electronic requirements could be voltage supply and power, PWM frequency and control current or the sensitivity of a sensor. Other kinds of requirements include software parameters like the needed User Interface (UI) or an Application Programming Interface (API), or environmental requirements such as Electromagnetic Compatibility (EMC) parameters, operational temperature ranges, or waterproofing properties.

PDF

Broadcast FM Receiver Specification		
Parameter	min	max
Frequency, configurable for US, EU and JP Bands	76MHz	108MHz
Sensitivity (EMF)	2uV	
Radio text sensitivity (EMF)	15uV	
Audio Output voltage (RMS)	0.9V	1V
Audio Frequency Response	30Hz	15kHz
Audio Stereo Separation	25dB	
Audio Noise reduction if reception poor		
Using external USB-C PD power adapter		12V
F-Type Antenna Connector	50Ohms	75Ohms
Display readable from 12 feet at daylight		
IR remote support		
Display shows Frequency, Radio text, Signal Strength		
Display has Mono/Stereo indicator		
Station Preset Memory		20
Nob for tuning		
Size of enclosure WxHxL		250mm x 50mm x 200mm

Import



Requirements in Altium Agile Teams Teams

Identifier	Text
Sheet1_REQ_1	Frequency, configurable for US, EU and JP Bands 76.00 MHz 108.00 MHz
Sheet1_REQ_10	Display readable from 12 feet at daylight
Sheet1_REQ_11	IR remote support
Sheet1_REQ_12	Display shows Frequency, Radio text, Signal Strength
Sheet1_REQ_13	Display has Mono/Stereo Indicator
Sheet1_REQ_14	Station Preset Memory 20.00 presets
Sheet1_REQ_15	Nob for tuning
Sheet1_REQ_16	Size of enclosure WxHxL 250.00 millimeters x 50.00 millimeters x 200.00 millimeters
Sheet1_REQ_2	Sensitivity (EMF) 2uV
Sheet1_REQ_3	Radio text sensitivity (EMF) 15.00 microvolts
Sheet1_REQ_4	Audio Output voltage (RMS) 0.90 volts 1.00 volt
Sheet1_REQ_5	Audio Frequency Response 30.00 Hz 15.00 kHz
Sheet1_REQ_6	Audio Stereo Separation 25.00 decibels
Sheet1_REQ_7	Audio Noise reduction if reception poor
Sheet1_REQ_8	Using external USB-C PD power adapter 12V
Sheet1_REQ_9	F-Type Antenna Connector 50Ohms 75Ohms

Figure 1: Altium Agile Teams imports requirements from existing specification documents and spreadsheets into the Requirements Portal, turning a static FM tuner spec into structured, trackable requirements.

New product development needs well-managed engineering requirements. The Requirements Portal categorizes different kinds of requirements and makes them available for everyone working on the design project. During the concept design phase, the team will add new, more detailed requirements. One design block may require a certain signal or supply voltage for its operation. This signal or supply voltage is generated in a neighboring block, and it therefore becomes a new requirement. Engineers will enter the new requirement in relationship to the original requirement and the two will then form a requirement hierarchy.

Throughout the entire development process the requirements are available and the design can be validated and verified against them. The validation and verification coverage is tracked and visible to the engineering manager at all times. In case requirements change during the design process, it is important that engineering managers and project leaders can see the impact of the change and evaluate which parts of the design were affected. They can then take immediate action based on these insights. The requirement management capabilities of Altium Agile Teams ensure that changes propagate through the project's requirements hierarchy in the right way, so the team can implement efficient design changes. This keeps projects on schedule and the team aligned to create a high-quality product, no matter how product expectations shift.

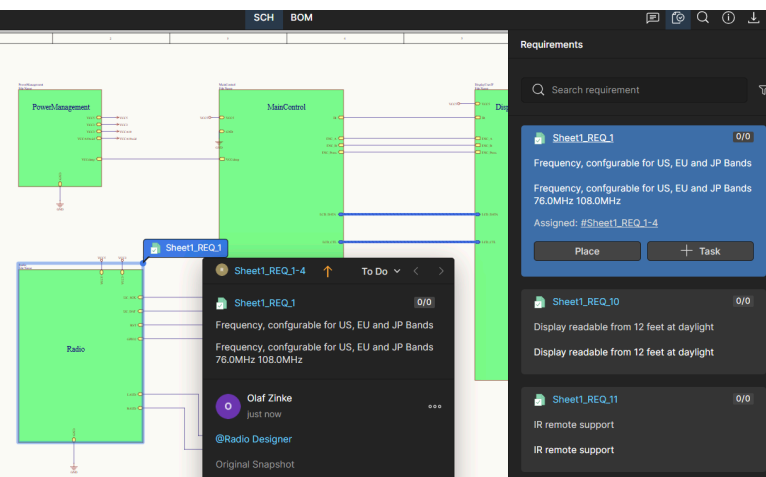


Figure 2: Electrical requirements are assigned to top-level schematic blocks as comments or as tasks, linking each requirement directly to the team member responsible for its implementation.

The Requirements Portal traces the assignments based on the requirements. This ensures that no requirement is overlooked. Missing assignments are easy to spot. Engineering managers have constant visibility into assignments and responsibilities.

Once the top-level electronic design is ready, the Engineering Manager or Project Leader can assign the electrical requirements to the top level schematic blocks as comments or they can assign them as tasks to the specific team member who is responsible for designing those blocks.

+ Add		Table	Connections	V. Status	V. matrix	Properties
Identifier ↑		Text	Applicable Block	Design Reference...		
Sheet1_REQ_1	...	Frequency, configurable for US, EU and JP Bands 76.00 MHz 108.00 MHz	TunerPCB Firmware	Radio.SchDoc		
Sheet1_REQ_10	...	Display readable from 12 feet at daylight	Enclosure TunerPCB	MainControl.SchDoc DisplayUserIF.SchD...		
Sheet1_REQ_11	...	IR remote support	Enclosure TunerPCB Firmware	MainControl.SchDoc DisplayUserIF.SchD...		
Sheet1_REQ_12	...	Display shows Frequency, Radio text, Signal Strength	TunerPCB Firmware	Radio.SchDoc DisplayUserIF.SchD...		
Sheet1_REQ_13	...	Display has Mono/Stereo Indicator	TunerPCB Firmware	DisplayUserIF.SchD...		
Sheet1_REQ_14	...	Station Preset Memory 20.00 presets	TunerPCB Firmware	MainControl.SchDoc		
Sheet1_REQ_15	...	Nob for tuning	Enclosure TunerPCB Firmware	MainControl.SchDoc DisplayUserIF.SchD...		
Sheet1_REQ_16	...	Size of enclosure WxHxD 250.00 millimeters x 50.00 millimeters x 200.00 millimeters	Enclosure			
Sheet1_REQ_2	...	Sensitivity (EMF) 2uV	TunerPCB	Radio.SchDoc		
Sheet1_REQ_3	...	Radio text sensitivity (EMF) 15.00 microvolts	TunerPCB	Radio.SchDoc		
Sheet1_REQ_4	...	Audio Output voltage (RMS) 0.90 volts 1.00 volt	TunerPCB	AudioConditioning...		

Figure 3: The Requirements Portal tracks every requirement against its applicable design block and design reference. Missing assignments are easy to spot and no requirement is overlooked.

Design Team Management: Freeing Your Experts to Collaborate

Design team management is about far more than assigning tasks and meeting deadlines. It is about creating an environment where innovation, precision, and collaboration come to life. In highly technical domains like electronic engineering, the complexity of projects demands structured coordination, clear communication, and seamless access to tools and data.

To lead design teams to success, engineering leaders must ensure that every team member can contribute efficiently without friction. This means aligning workflows, standardizing processes, and maintaining visibility across the entire design lifecycle. Without clear visibility and guidance, teams often struggle with version conflicts, miscommunication, and duplicated effort, all of which can lead to costly delays and errors.

Today's design teams need a shared, easily accessible, and centralized workspace. This is where cloud-enabled platforms like Altium Agile Teams play a transformative role. By enabling connected collaboration, such environments eliminate traditional silos and allow distributed teams to work together in real time. Designers can access up-to-date project data, share feedback instantly, and ensure that everyone is always working on the latest version of a design.

The importance of accessibility cannot be overstated. In today's global engineering landscape, teams work together from everywhere in the world. An accessible environment ensures that location is no longer a barrier to productivity. Whether a team member is in the office, working remotely, or collaborating across time zones, they can securely access project files, design rules, and component libraries without disruption.

Furthermore, solutions like Altium Agile Teams help engineering managers gain better oversight of design progress. They can enforce standards more effectively and ensure that all changes are documented and auditable. This level of transparency builds confidence within the team and with external stakeholders.

Another key benefit is faster design progress. When the working environment is intuitive and unified, teams spend less time managing files and more time solving engineering challenges. Features such as version control, commenting, and live collaboration reduce bottlenecks and accelerate decision-making.

Working with Altium Agile Teams, managers can onboard team members easily by adding them to the collaboration workspace. Automatically, independent of their geographical location, they get access to all projects worked on within this workspace setup. The access is governed centrally with user roles and permissions. Any team member sees only what they need to see to collaborate effectively.

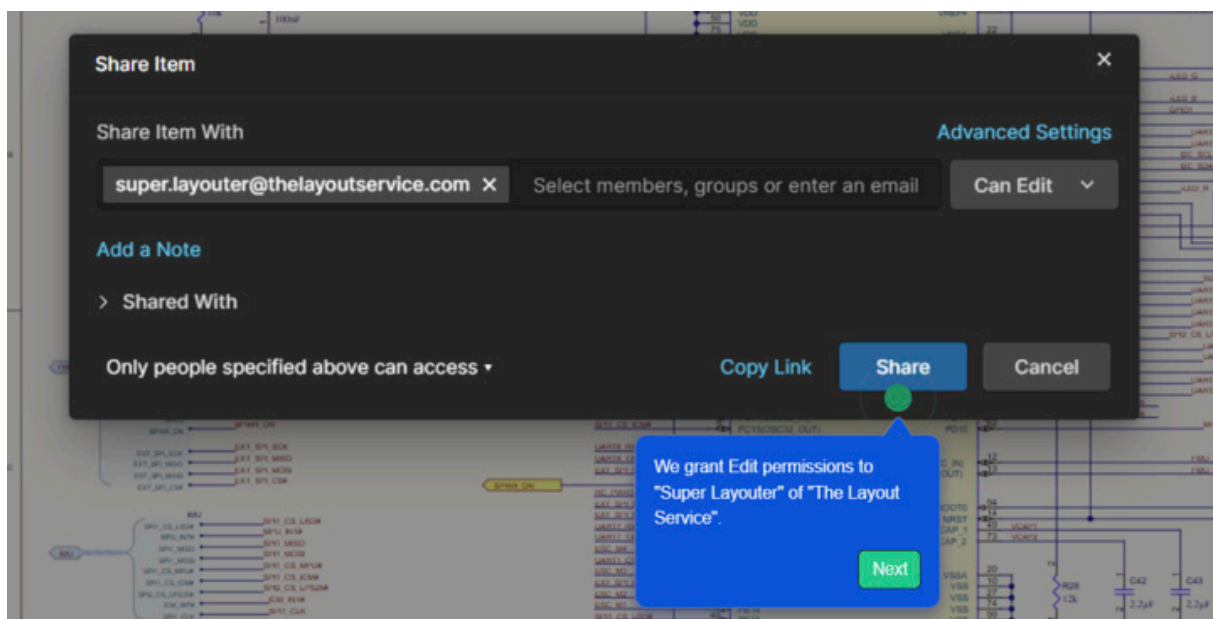


Figure 4: Onboarding an external layout service takes only an email address and the right access level. In this instance, Edit permissions are granted to a single project.

The onboarding process is as simple as providing an email address. This ease of secure onboarding is especially handy when onboarding external design consultants or design/layout service providers. Traditionally, this action might require lengthy setup with an IT ticket, which might even include physical shipment of hardware or VPN devices. Instead, a cloud-based workspace can onboard external co-workers almost as easily as onboarding internal team members. External partners can be full workspace members with the same rights as internal employees, or, in order to enforce IP protection, their access can be restricted to just viewing or editing specific folders or projects. In Figure 4 a project is shared with an external layout service person with EDIT-access. You see this person in Figure 5 listed as "Guest".

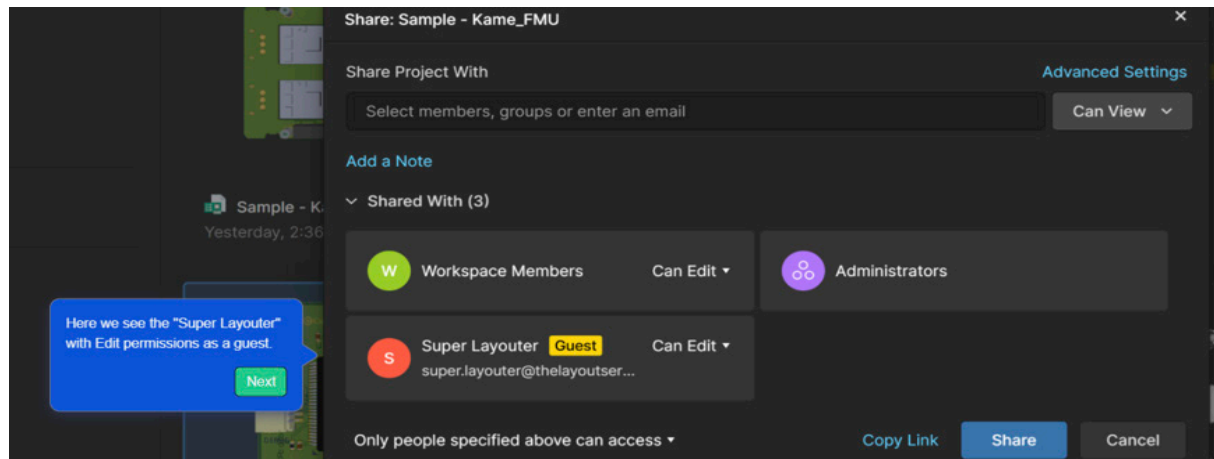


Figure 5: The external layout service appears in the workspace as a Guest with controlled access. Outside partners contribute without seeing the rest of the team's work.

Here's one common example of where improved collaboration yields better design outcomes. Some design projects require an application-specific integrated circuit (ASIC). Using a custom-developed IC slows everything down and significantly increases the risk of successfully meeting time-to-market and budget expectations.

An engineering manager needs to protect information, minimize costs, and keep projects moving. Avoiding a re-design of the IC is key to achieving all three of those goals. The project could be delayed by month, if the IC fails to meet the application requirements.

Traditionally, the interaction with ASIC providers is fragmented. Engineers exchange information via email, PDFs, or meeting notes, and it's very easy for requirements, design intent, or context to get lost.

By contrast Altium Agile Teams can give the IC design team secure access to a shared workspace. That means they don't have to work in isolation anymore. They can actually see the evolving system schematic and PCB context early in the process. This reduces misalignment from the beginning through to design completion.

Next, teams can use the platform to translate system-level requirements directly into IC requirements, all within the same environment. Instead of gathering scattered documents, everyone works from the same source of truth. Additionally, Agile Teams enables real-time collaboration on design data, with shared access to IC schematics, simulation results, and feedback that can all be discussed and improved centrally. There's no need to send files back and forth: the conversation happens directly connected to the actual data, displayed visually. All comments and feedback can be made with direct reference to the design. On top of that, teams can track tasks, issues, and responsibilities together, which keeps all internal groups aligned and accountable.

Altium Agile Teams integrates validation data directly into design, verification and validation workflows. This means that project leaders and participants can verify outputs like test results, thermal behavior, or qualification data against both initially-defined requirements and new requirements that arise during the project.

In summary, Altium Agile Teams gives engineering managers the opportunity to streamline the way their team members collaborate. They can transform from a disconnected, manual collaboration model to a transparent, real-time, and fully traceable engineering workflow. And that's really the key value: better alignment, faster iterations, and fewer surprises when silicon meets the board. We bring the IC provider into the system-design process, instead of treating them as an external black box. Both engineering managers, the one on the board/system side and the one on the IC provider side have complete real-time visibility and can intervene early if problems arise that require re-alignment.

Design Process Management: Fostering Predictable Success

The management capabilities of Altium Agile Teams ensure that the design team is set up and that requirements are defined and assigned. With that, engineering managers can shift focus to managing the design process itself. Agile Teams gives them the structure they need to control complexity while keeping projects on schedule.

Two priorities drive this imperative. The first is the growing pressure to accelerate design velocity by doing work in parallel. Managers must ensure smooth handoffs between design stages so nothing gets stuck between phases. The second is to minimize risk by reducing PCB re-spins. Clear requirements, defined checkpoints, and continuous reviews catch issues early in the cycle rather than late, where the cost of correction is highest.

Central to both speed and structure is transparency in the design process. Engineering managers and project managers need to see where things stand wherever and whenever they want: whether the flow is progressing, where bottlenecks are forming, and whether anything is blocked. That visibility allows management to intervene early, assess issues, and keep the project moving. It also enables early risk detection and makes delivery timelines predictable. When leaders learn those lessons across many projects, they can include best practices into central policies so that every project and team-member benefits. The goal is not speed alone. It is design execution with control, visibility, and predictable outcomes.

The Agile Teams cloud-based collaboration platform connects all team members, lets them share requirements and design data, so they can make ad hoc decisions with full context. It also provides pre-built and configurable process workflows that standardize the hardware design flow from initial requirements collection through to production release. Pre-built standard workflows support key recurring processes. Those pre-built workflows are: project creation, part request, and design review. These workflows are a structured approach to product design. They connect directly to workspace team members and reference the project database, so every task operates on the correct design version.

Once initiated, a workflow advances automatically from one task to the next, eliminating handoff delays and unambiguously linking tasks to the current design state. Review and approval tasks are clearly defined: no reviewer feedback is missed, and all approval requests are routed to the correct approver. The workflow initiator and engineering management have full visibility into the process advancement and the responsibilities at each stage. If a workflow template needs adjustment, they are all configurable, according to a team's unique requirements.



One Workflow in Detail: Asynchronous Design Reviews

For distributed teams working across different locations and time zones, or where team members cannot align schedules for a synchronous review meeting, the pre-built Design Review workflow organizes reviews in an asynchronous way.

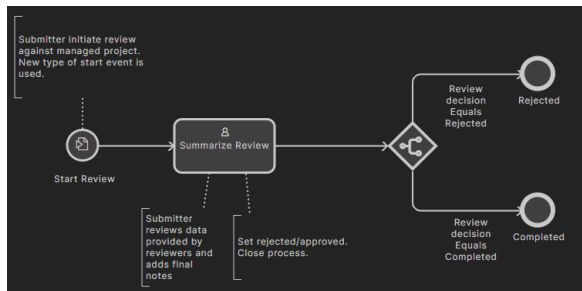


Figure 6: The pre-built Design Review workflow in Altium Agile Teams shows an automated flow from initiating the review through approval or rejection.

Design data, schematics, PCB layouts, simulation results, checklists, reviewers, requirements, and feedback are all mapped and visualized in one place. This reduces review time, ensures that no feedback is missed, and gives the project manager real-time visibility into the review status. Standard checklists, enhanced with design-specific checkpoints ensure that nothing is overlooked. All comments are archived and tasks resulting from the review are captured and assigned for resolution.

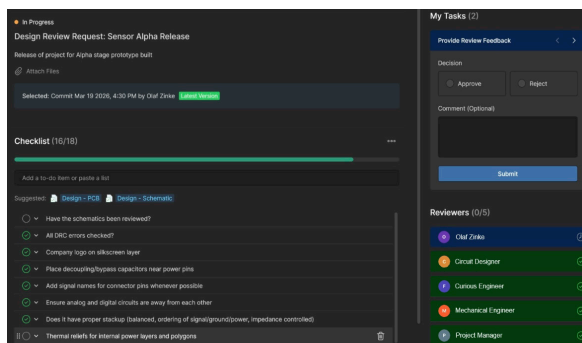


Figure 7: The Design Review dashboard shows the checklist progress, reviewer status, and the feedback in one place. Managers can see who has completed their review tasks and who still needs to respond.

The Design Review workflow replaces email chaos with a reproducible, structured process that keeps feedback organized and decisions transparent. Program managers and engineering managers can see which reviewers have completed their review and who still need to respond. They can send reminders directly from the dashboard.

Configurable Workflows for Full Design Process Control

Configurable workflows take design process control further. A workflow that is configured to match a team's established design methodology becomes the standard flow going forward.

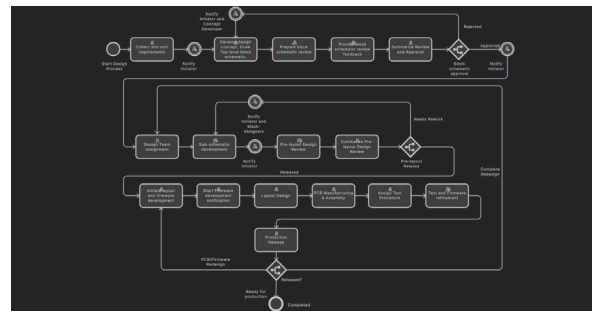


Figure 8: A configurable design process workflow in Altium Agile Teams, spanning requirements collection to production release. Automated transitions, review gates, and rework loops keep the process moving without manual coordination.

Once applied to the workspace and started for a new project, the workflow moves through all design and review stages until the design flow converges and the product is ready for production. Engineering managers have continuous visibility into the project status throughout: they can see the exact process stage and which team member is responsible for completing the current task.

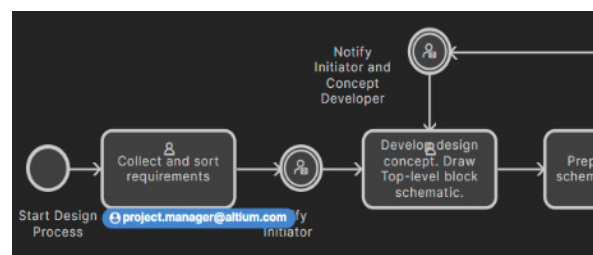


Figure 9: Workflow initiation assigns responsibilities and triggers automatic notifications, ensuring that the right team members are engaged from the first design step on.

Automatic notifications inform engineering management when the team completes key stages or when an additional design iteration is required to resolve outstanding issues.

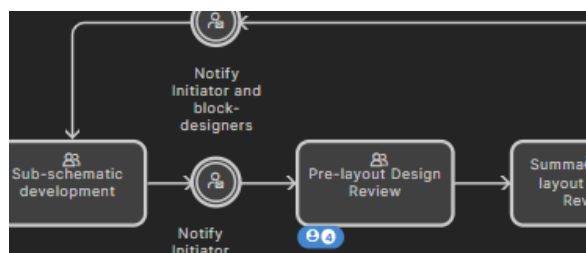


Figure 10: The pre-layout design review stage within the workflow.

Consider a scenario where the process has reached the pre-layout design review stage. Four team members are reviewing the design (Figure 10). Moving forward, Figure 11 shows that the pre-layout design review from the voltage supply designer is still due. They have not yet responded. That person may be unavailable, and the missing review risks stalling the project.

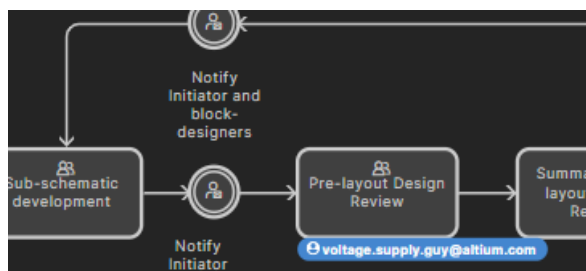


Figure 11: Engineering managers can identify which reviewer has not yet responded and reassign the task directly within the workflow, keeping the review on schedule.

Management can intervene directly to identify the pending reviewer and assign an alternative reviewer or overtake the review as a personal task ensuring that the review completes on time. The workflow configuration supports this kind of management intervention without breaking the process structure.

Design and Change History

Beyond real-time visibility into current process status, Altium Agile Teams maintains a complete record of all committed changes with direct links to the design data at each point in time.

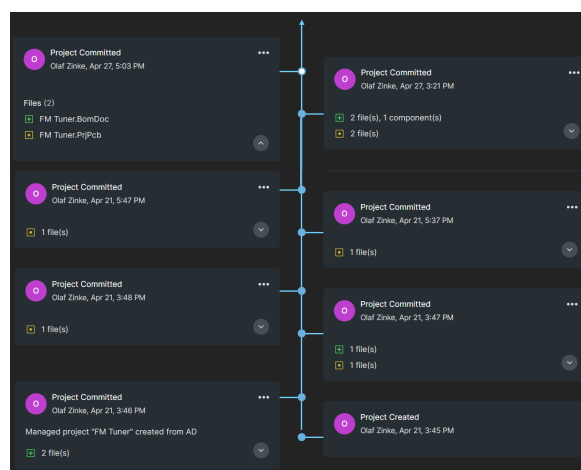


Figure 12: The project history in Altium Agile Teams records every committed change with author attribution, timestamp and affected files, giving managers a complete map of the design progression and history.

Managers see exactly what has changed at every step. They can compare schematics, PCB layouts, and BOM data against any previous revision.

Taken together, these design process management capabilities give engineering managers a continuous line of sight from project start to production release. Altium Agile Teams gives engineering managers direct control over how design work moves through the organization. Configurable workflows establish high standards for design flows that every team follows, with automated step advancement keeping projects moving without manual chasing. Managers can monitor progress in real time, spot bottlenecks before they become delays, and reassign tasks without disrupting the team. Structured design reviews are built into the flow rather than bolted on as an afterthought.

Throughout, every design is version-managed and every change is recorded, giving teams a complete and accurate engineering change history they can rely on. The results are measurable: one electrical building infrastructure company, after standardizing a 50-person design team on Altium workflows, recorded a nearly 50% drop in failures and completed the transition in six weeks without disrupting a single engineer's work.

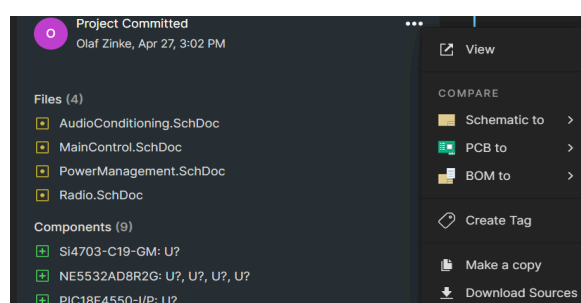


Figure 13: From any point in the project history, managers and engineers can compare schematics, PCB layouts, and BOMs between revisions to understand exactly what changed and why.

Design It Right the First Time: Managing Multidisciplinary Electronics Teams

Electronics product development does not happen within a single discipline. The decisions made by electrical engineers and PCB designers affect mechanical constraints. Component choices influence supply chain timelines. Software dependencies shape hardware requirements. Manufacturing feasibility feeds back into design decisions. Every domain intersects with every other, and most product development issues arise exactly at those domain intersections. Historically, those handoffs between disciplines lacked sufficient context and accountability. The platform approach of Agile Teams fills in those blind spots.

Engineering managers have come to accept such coordination challenges as inevitable when their team grows. When each discipline operates in its own tools and communicates through email, shared drives, and meeting notes, misalignment becomes unavoidable. The PCB is designed according to a board outline that the mechanical team updated three days ago. The software team is working based on a pin mapping that the hardware engineer revised last week. The procurement team is sourcing components from a BOM that no longer reflects the current design. Each team is working hard, but none is working from the same truth.

Altium Agile Teams addresses this directly. By connecting all functional domains into a single shared workspace, the platform gives every discipline access to the same data, the same requirements, and the same design files.

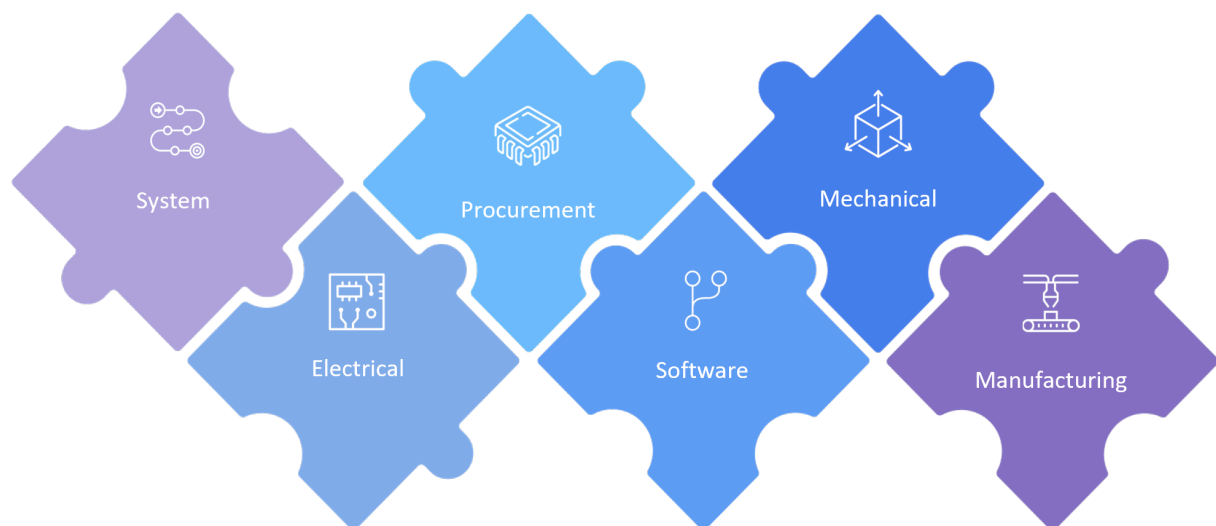


Figure 14: Product development issues arise at the intersection of disciplines. Altium Agile Teams connects system engineering, electrical engineering, mechanical engineering, software development, procurement, and manufacturing colleagues in a single shared environment.

ECAD-MCAD Codesign: Closing the Mechanical-Electrical Gap

The most frequent source of late-stage re-spins in electronics development arises at the gap between electrical and mechanical design. Board outlines change. Component heights shift. Connector placements move. When each team works in its own separate tool and exchanges data through exported files, those changes travel slowly and arrive without context. The result is interference discovered at prototype stage, after tooling has been committed and schedules have been set.

Altium Agile Teams includes native bidirectional ECAD-MCAD codesign capability, connecting Altium Designer directly to SOLIDWORKS, PTC Creo, Autodesk Inventor, or Autodesk Fusion 360.

When the mechanical engineer updates the board outline or moves the position of a keep-out zone, those changes are available to the PCB designer immediately after a quick synchronization, without exporting a STEP file, sending an email, or scheduling an in-person sync meeting. After the PCB designer has moved a connector or adjusted the placement of a component, the mechanical team can see the updated 3D model in their native environment.

With both teams working from exactly the same data, they catch fit issues early. The bidirectional connection makes it easy to ensure that the PCB fits the enclosure. The heat sink aligns with the power components. Connectors are accessible without disassembling the device. The mechanical engineer and PCB designer can confirm all of this before a single prototype is built.

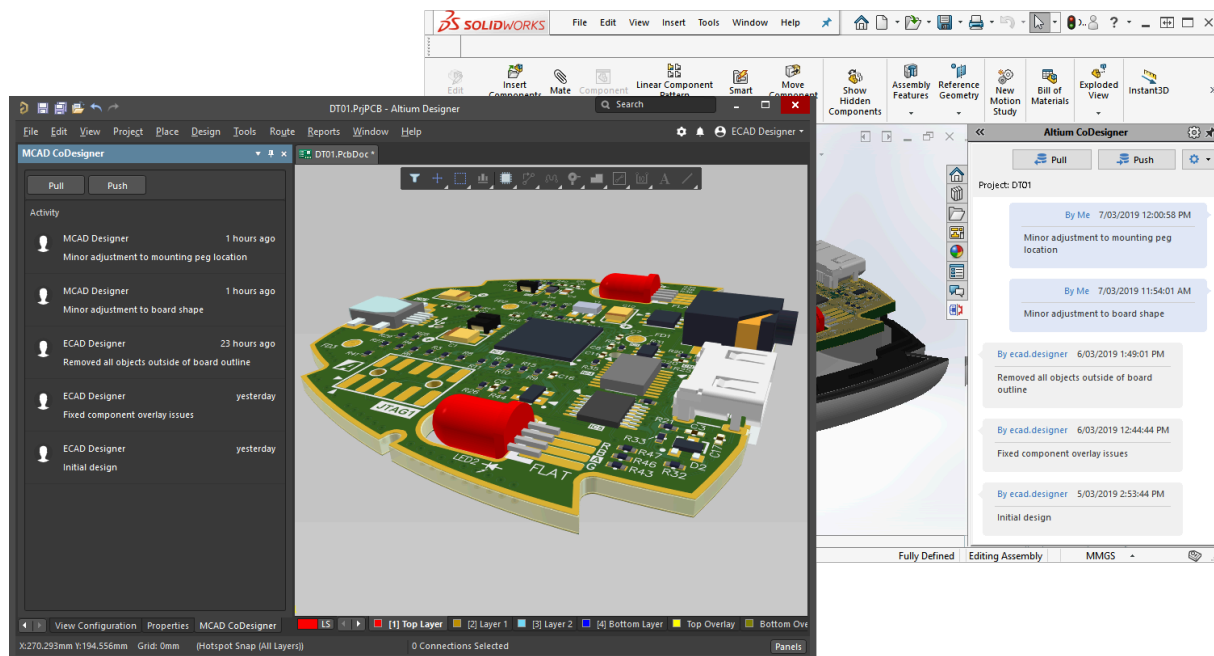


Figure 15: The bidirectional ECAD-MCAD codesign in Altium Agile Teams keeps mechanical and electrical design in continuous sync, eliminating file exchange delays and version mismatches.

A Single Source of Truth for All Disciplines

Beyond ECAD-MCAD synchronization, every team member in the workspace works from the same version of project data. Requirements, design files, BOMs, simulation results, component libraries, and the workflow status are all kept in one place and are accessible from any location. This matters in practice. The software engineer checking the pin assignments does not need to ask the hardware engineer for the latest schematic to be exported and sent over. Instead, they open the browser, navigate to the project, and see the current state. A procurement specialist reviewing component availability does not work from a BOM emailed three days ago. They access the live BOM directly in the workspace. A mechanical engineer verifying clearances does not wait for a STEP file to arrive. The updated 3D model is already there.

The shared workspace also supports the full range of collaboration activities: requirements are visible and linked to design blocks, workflows and design reviews are accessible to all relevant stakeholders, tasks are assigned and tracked in context, and design variants and versions are managed centrally so no team member is working from an outdated revision.

The real win is not just faster communication. Designs improve. Many of the design flaws that happen at the intersection of the design domains can be avoided when team members work better together. If problems arise, the team discovers them early on, rather than days or weeks later when different disciplines finally compare their work. By that point, inconsistencies or errors are far more expensive to fix.

Multidisciplinary collaboration makes it possible to design hardware right the first time, simultaneously across every discipline.



After the Product Has Left the Lab: Testing, Certification, and Field Support

Getting a product through design and into production is only one part of the job. Engineering managers also carry responsibility for what happens after the design has left the design lab. Product testing, standards certification, responding to field returns and applying engineering changes involve people who were not part of the original design process. They work under time pressure and often without easy access to the full design context. The lack of context causes problems.

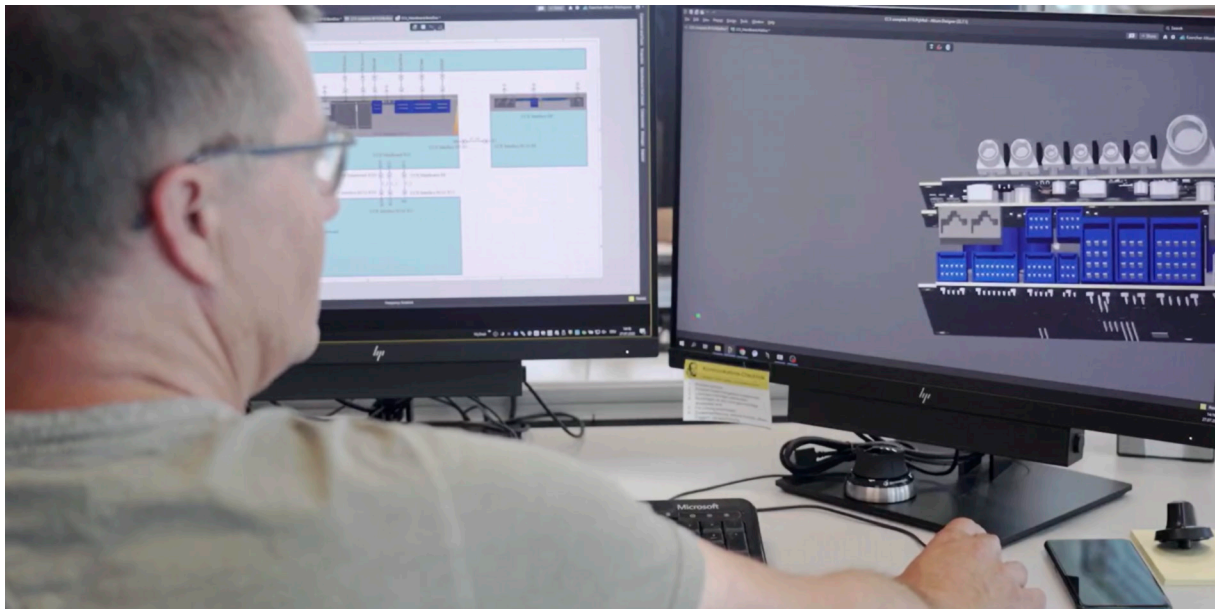
Altium Agile Teams keeps the complete design record accessible throughout the product lifecycle, so testing teams, certification partners, and sustaining and support engineers have what they need to promptly resolve issues.

Product Testing and Standards Certification

Product testing covers a wide range of activities. Real-life functional testing, specialty testing for EMI, thermal performance, climate resilience, and end-of-line test preparation all require access to the original design intent. Standards certification adds another layer: confirming that the product meets requirements such as UL, CE, and FCC, and supporting process audits for standards like ASIL risk qualification and ISO 26262.

Most of this work is done by external partners who had no involvement in the design process. That creates a practical problem. The test engineer or certification agency needs to understand the design quickly and ask focused questions. They want to get answers quickly without waiting for the original designer to find and export the right file.

Altium Agile Teams removes that bottleneck. The complete design record is available in one place: the original requirements, all design data including schematics, PCB layouts, mechanical construction, the bill of materials, the full history of the design process, all variants and versions, as well as simulation and measurement results. Engineering managers can grant external testing partners controlled access to the workspace, where they can review the design data directly and leave questions as comments tied to the specific area of concern. The designer sees the question in its schematic or layout context and can respond quickly. The results are faster testing cycles, fewer back-and-forth requests for information, and a cleaner record of what was tested and when.



Managing Field Returns and Engineering Changes

Field returns represent a painful situation for an engineering manager. A product fails in the field. The team needs to identify the root cause, determine what changed between the version that worked and the version that did not, and then quickly develop as well as implement a fix. This is hard enough when the original design team is intact. It becomes significantly harder when the relevant engineer has moved on, documentation is incomplete, or past decisions are unclear. Add in the need to communicate changes to the supply chain in order to find replacement parts. A field return can quickly become a months-long drain on the team, often without a clear end in site.

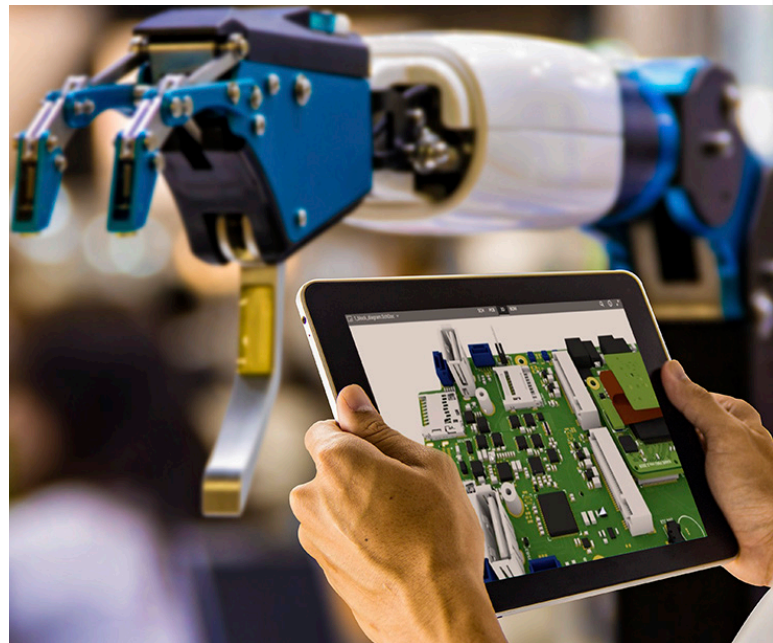
Altium Agile Teams addresses each part of this problem. The manager can share the complete design history. This means that the team can do root cause analysis starting from a documented record, not from what people remember. Every committed change is logged with author attribution, timestamp, and a link to the affected design data. Schematics, PCB layouts, and BOMs can be compared between any two revisions. A team investigating a field issue can identify exactly what changed, who changed it, and why, in minutes rather than days.

Once the team identifies a root cause, the manager can create a structured change request and assign it within the workspace. All discussion happens with direct reference to the relevant area of the design, so all team members understand the context. Engineering managers have full visibility into the status of each change as it moves through the process.

For any supply chain impact, the live BOM gives the team access to up-to-date component availability and pricing data. Identifying alternative parts and checking their availability happens inside the same environment where the design change is being made.

When the change is ready to release, Altium Agile Teams connects directly to PLM systems for final synchronization. The Duro cloud PLM integration is native to Altium Agile Teams. For teams already using Arena, that integration is also supported.

This approach assures that critical knowledge stays with the company as a shared resource, not siloed with individual engineers. When design history, decisions, and change records are captured in a structured, searchable workspace, the knowledge of the team does not walk out of the door when a key engineer leaves. The next person can pick up the project with the full context of earlier decisions.



Conclusion

As your team grows and you manage a larger multidisciplinary group, it won't be a lack of knowledge or team effort that slows you down. The bottleneck usually comes when project coordination doesn't scale. A working style with quick informal communication that worked well when the team was small and everyone sat in one room grows inefficient once you have several disciplines, a few locations, and more people touching every design. Files drift out of sync, feedback gets lost, and you can't always be sure which version is current.

Altium Agile Teams provides a solution for hardware engineering managers who want to work with the same agile methods developed by software team managers. Your requirements, design data, workflows, and change history should be managed in one shared workspace, so your team works from the same source of truth, instead of chasing files and email threads. Requirements should stay closely connected to the design.

Design reviews must follow a standard process that you can repeat. Your mechanical, electrical, software, and procurement people should see the same design state. This ensures that anyone can discover that a board doesn't fit the enclosure or that components have become end of life—before anyone builds a prototype. And because every change is versioned and recorded in Agile Teams, that design knowledge stays with your team when an engineer moves on or forgets what happened months ago.

The Altium Agile Teams solution gives you all capabilities needed to manage the design process efficiently: you know where the work stands, you have the structure to keep it moving, and you can step in before a slipping review turns into a missed deadline. When your team gets the design right the first time, across every discipline, you ship on schedule with fewer surprises.