



Planning for a successful Manifest pilot project

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- 01 | Define your Objectives and Metrics of Success
- 02 | Identify your Specific Manifest Use Cases
- 03 | Recruit, Engage, and Empower your People
- 04 | Schedule your Equipment and Asset Availability
- 05 | Consider your Environment and Devices
- 06 | Plan and Execute
- 07 | Evaluate your Results
- 08 | Share your Results and Plan the Next Steps

Steps to a Successful Manifest Pilot Deployment

Congratulations on your exploration of Manifest, a leading solution for industrial work instructions and remote guidance. Companies around the world and in a variety of industries are using Manifest to make their operations and training more efficient. With Manifest, employees learn and perform operational and maintenance tasks faster and more accurately.

A common first step in deploying Manifest for many customers is a pilot deployment to evaluate the solution with company specific procedures, equipment, people and in their environments. Pilots are a great exercise to familiarize your team with the Manifest solution and evaluate its impact on your operations. Pilots are great ways to collect quantifiable results of the impact of new technology but also understand the repeatability or viability to scale solutions within the organization.

At Taqtile, we have partnered with many customers to perform instructional and productive pilots. And while each one is different, there are some fundamentals and best practices that can be considered to maximize the impact and results of the effort.

We would like to share those with you.

Pilots are a great way to introduce Manifest to your team and help them become familiar with the solution. By digitizing 1-2 of your operational tasks, you will gain an understanding of how Manifest works, what level of effort is required to implement it in your location, and the impact it can have on your people and procedures. And they are also great for organizations already familiar with or using Manifest, or ready to deploy. A well-run pilot can help your organization in several ways; it can help your team:



Effectively pilot and evaluate the Manifest solution



Measure the viability to scale the Manifest solution within the organization



Fast track a Manifest deployment within your organization



Evaluate Manifest within a new division or team



Assess Manifest for new use cases

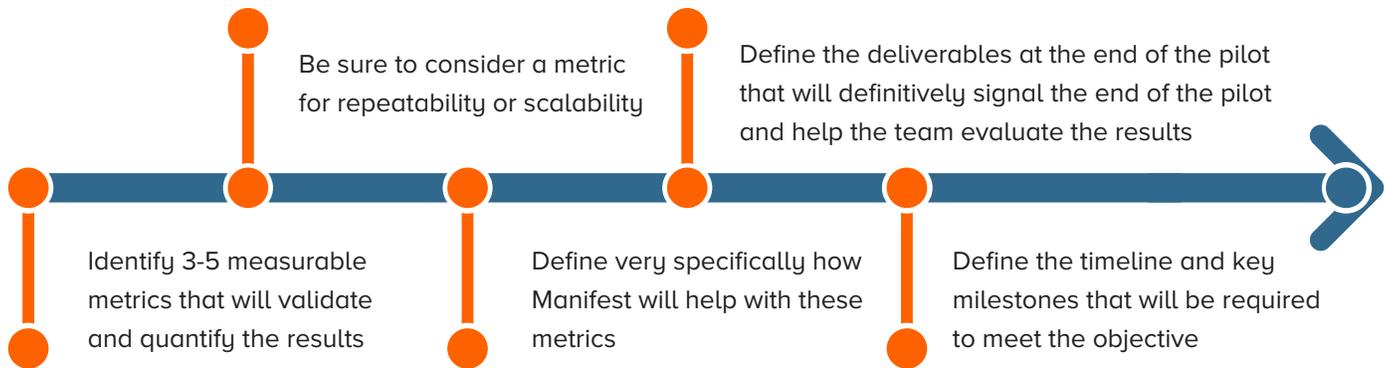
01

Define your Objectives and Metrics of Success

Being very specific and clear about your objectives is the critical first step, and perhaps, the most important step to ensuring a successful pilot. What are you and the team trying to achieve or prove? What is the specific business problem that is being addressed? Don't be too ambitious here. Consider a modest scope. Keep it manageable and realistic.

Simpler will be better. Make sure your objective is aligned with the people and resources that you expect to be available during the pilot. Relying on a team that is short-handed or including equipment that needs an upgrade or won't be available will not set you up for success. Key objectives should include some measure of repeatability or scalability. Are the objectives and pilot designed in a way that if successful, it can be replicated on a larger scale to provide larger impact? Think about your executive sponsor (more below on this topic) and budget holder. Will they agree with the business problem that you are addressing? Aligning the objectives with the team is critical.

With the objectives defined and agreed upon by the stakeholders, consider how you will measure success to help you understand if the objective is ultimately met.



- What is the primary business problem that you are solving?
- What are the metrics that will demonstrate Manifest's ability to address that business problem?
- Are your metrics simple?
- Are your metrics specific?
- Are your metrics measurable? Do you have a baseline with which to compare Manifest usage?
- Do you have a mechanism to measure the repeatability of the solution within your teams or organizations?
- Do stakeholders agree with them?

02

Identify your Manifest Use Cases

With a well selected objective, identifying the specific Manifest use cases should be a straightforward step. But again, we caution you to be focused. Don't try to do too much with Manifest initially. It is better to design a simple, streamlined pilot that covers a single use case or two. Complete the pilot successfully first and then build on that success by considering additional use cases in an extended pilot or early deployment. Choose 1-2 common operational or maintenance procedures, as an example. Digitize and augment the instructions with Manifest and evaluate your workers' speed and accuracy when performing these procedures using Manifest vs your traditional ways. To start, don't choose you're an overly long procedure. While Manifest can certainly handle them, staying simple initially will allow your team to become familiar and proficient with Manifest before tackling longer procedures. The key to this step is to be very specific about your expectations of Manifest and the specific use case that you will be using to evaluate it. Work instructions for operational or maintenance procedures, collecting evidence of accuracy and performance, inspections, logging and resolving faults, remote assistance and collaboration are all great examples of generic Manifest uses cases, but you will want to make these very specific to your procedures, people, locations, and equipment for your pilot.

- Manifest's work instructions will replace physical manuals documenting inspection guidance for a transport vehicle and be used to guide technicians and log, review, and resolve faults found during inspections.
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- Manifest will be used to help train new employees on operating a complex machine. Before using the machine, technicians will use Manifest and a 3D model or digital twin to learn how to operate the machine in a safe environment without the risk of creating errors or creating scrap.
.....
- Manifest will be used to guide technicians on a specific maintenance procedure on new high-tech equipment, that even experienced technicians struggle to operate, to reduce errors and minimize downtime due to maintenance.
.....
- Manifest will be used to provide guidance to visiting scientists to understand how to use a shared lab. Manifest will also enable real-time support from remote experts.

Characteristics of Good Pilot Procedures

- Procedures with multiple steps; they don't have to be overly complex but should have at least a few steps
- Procedures that require workers to move or take physical steps (vs standing still at a bench)
- Procedures that require experts or expert supervision
- Procedures that require workers to collaborate from multiple locations
- Procedures for machines that are complex to operate or maintain
- Operational or maintenance procedures or inspections that are run infrequently or need to be run by unskilled or under skilled workers
- Procedures that are not digitally documented or ones that are costly or cumbersome to keep updated with technical writers

03

Recruit, Engage, and Empower your People

People are a big part of the success of a Manifest pilot. So, building a team that is supportive, engaged, and invested in its success is an important step. Be sure to think past the pilot as well. If the pilot is successful, what would be the next step in deploying and using Manifest in your organization? Which teams and people would be involved? Consider involving those people in the pilot.

Be sure that everyone selected as part of the pilot team and their managers are both invested in the success of the project and available. Will overtime be required from some workers? Make sure your team members have the necessary access and ability to work with the specific equipment and the specific locations where the pilot will occur? If remote personnel will be involved, consider, what limitation, if any, will be introduced. Perhaps your use cases will require remote team members.

We have seen the most success when a team with diverse skill sets and experience levels is created. Operational subject matter experts are critical for ensuring procedures are well documented and optimized. And digital natives or technology enthusiasts, excited and curious about Manifest, AR headsets, and new technology, are just as important to build internal Manifest expertise and enable and encourage broader usage across the team.

Here are some key roles that you will want represented on your pilot team. It will be important to make sure everyone is committed to the pilot and will be available to contribute to the effort.

- **Project champion** A working level manager that will be responsible for project managing the pilot and the people and is invested in its success
- **Executive sponsor** A visionary executive that is trying to solve the business problem that the pilot is addressing
- **Budget owner** Someone with the budget to cover the initial pilot, expected follow on projects, and, ideally, a deployment when the pilot is successful
- **Operational subject matter experts** An experienced technician or engineer that can help create or certify the digitized and augmented step-by-step work instructions for the specific use cases and procedures
- **Manifest champion and solution expert** Someone that is interested, available, and comfortable with learning Manifest and becoming an expert, advocate, and assistant for the rest of the team
- **Users** 3-5 technicians or other workers with varying levels of work experience and skills to accurately compare using Manifest guidance vs traditional methods
- **IT representative** A team or individual that can enable and support the use of Manifest within the existing enterprise systems, security, and infrastructure
- **Health and safety and/or HR personnel** Some organizations may require these people to be involved depending on specific procedures, facilities, or teams involved

04

Schedule your Equipment and Asset Availability

Ensuring equipment and facilities are available for an appropriate amount of time to support a pilot is important. And while this may seem like an obvious requirement, we have seen this impact teams' ability to execute pilot deployments. So be sure to define what equipment, machinery, and facilities will be required for the pilot. As with other steps, keeping it simple will facilitate success. Schedule availability early if required. If equipment will need to be taken offline, consider the business impact. For example, will workers need to work overtime because equipment is only available during off hours? If your pilot involves a comparative test, is there a baseline for operational procedures on the specific equipment that can be compared with Manifest when used?

Also, consider using a digital twin or 3D model instead. Manifest workflows can be built and used with 3D models and enables certain use cases, such as training new employees, to occur without requiring access to physical equipment. This is especially valuable if employees are remote, or it is difficult or costly to take equipment offline. Digital twins are useful for creating content as well as they can be used for spatial placement of content while documenting procedures.

Confirm Availability and Schedule Early

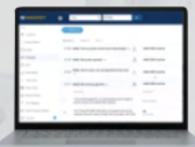
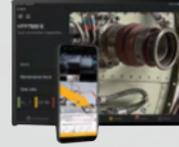
Don't forget the IT equipment and infrastructure that will be needed to support the pilot. Remember, make sure that someone from the IT team is on your pilot team. Some access topics that you will want to cover before your Pilot could include:

- Authentication requirements
- Active support and management from corporate IT for organizations that require private cloud, or on-prem deployments (however, most Manifest deployments are public cloud based)
- Enabling Manifest and its users' permission to run within your enterprise security and infrastructure
- Enabling new devices, such as head-mounted displays, to run on corporate networks and environments
- Enabling existing device such as iPads or Android devices with the ability to access app stores and install Manifest apps

05

Consider your environment and device selection

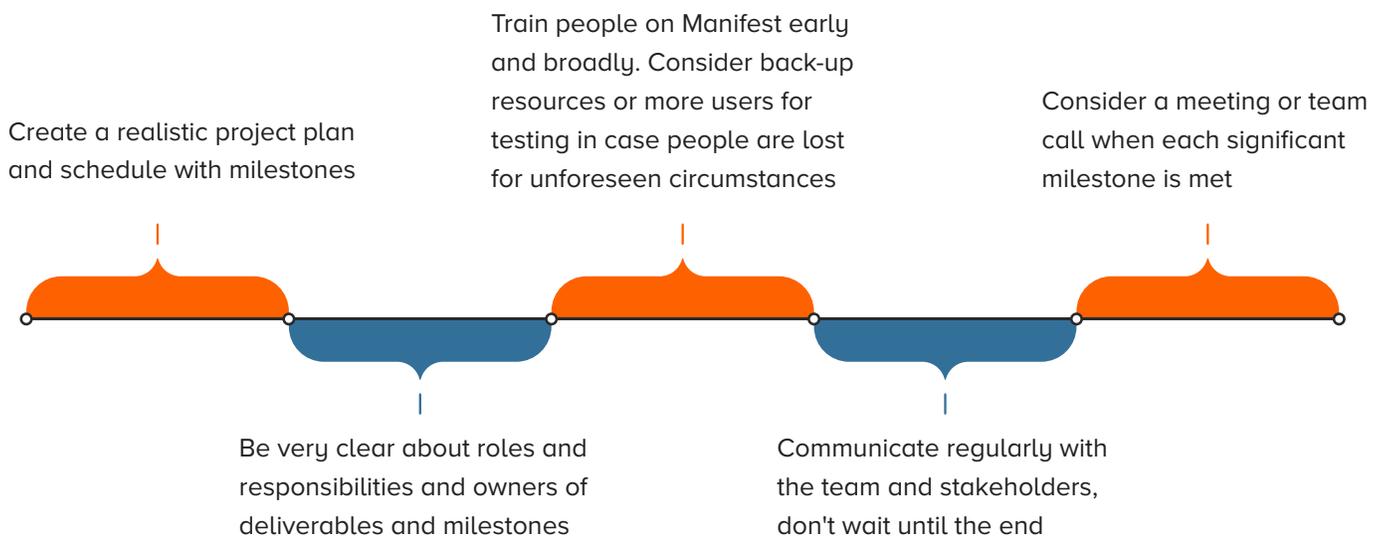
Choosing the right tool for the job is a key decision for a successful pilot. Manifest's broad device support enables you to run Manifest on different devices depending on the use case, task, environment, and cost. PCs provide a great tool for initial configuration, administration, and quickly building out work instructions. They also provide a great tool for experts to collaborate and communicate with remote workers. Head-mounted displays are great for in-situ authoring and augmenting instructions with media or spatial markers and provide a hands-free interface when jobs require it. iPads and Android devices make great devices for both creating and following instructions – they are familiar devices, and you may already have them deployed for other uses. And if you are working outside, or in a very bright, noisy, or harsh environment, a hands-free, ruggedized wearable device may be the best selection.

			
PCs	HMDs	Mobile	Wearables
Powerful with Easy Input	AR Enabled Hands-free	Ubiquitous and Familiar	Ruggedized and Lightweight Hands-free
Manifest Uses: Admin and Configuration Authoring Remote Guidance	Manifest Uses: In-situ Authoring Visualization	Manifest Uses: Broad Deployment Operations Authority Remote Assistance	Manifest Uses: Broad Deployment Remote Assistance Noisy, Bright and Harsh Environments

06

Build your Plan and Execute

With your objectives clearly defined, your team recruited, and resources identified and allocated, it's time to think about execution. You need to build a project plan and start executing. Build a realistic plan and timeline - don't try to accomplish too much in a short amount of time. Make sure people are engaged and stay engaged. Empower the team but also hold them accountable with regular check-ins and status reports. Make sure to communicate regularly – not just at the end or when problems arise. Be proactive with meetings, calls, and emails to keep everyone informed of progress. Challenges will likely be encountered but with regular communication, surprises will be avoided.



Taqtile or our partners can help you plan and execute your Manifest pilot. Our Quick Start package is a managed on-boarding program that will provide your team with the training and project management services to expedite a successful and informative pilot. Manifest subject matter experts will aid and advise to optimize Manifest for your specific use cases and equipment. There is no need to go it alone. Let us help you be successful.

07

Evaluate your Results

Evaluating your results will help the team understand Manifest's impact on your operations and help inform its potential impact from a broader deployment within your organization. Spend some time up front defining how to evaluate your results. Be thoughtful and intentional about what data you will collect and how. Collecting metrics that support your objectives and that can be compared to a baseline using traditional (pre-Manifest) methods is essential. Qualitative measure may add to your evaluation and understanding. User surveys are a great way to obtain insights that complement the numbers. Did users find it easy to use? Did they learn some tricks and tips that would be worth collecting for others? What are their recommendations to help others learn and use Manifest? Capturing these insights will be valuable as you move to deploy Manifest broadly into your operations and expand usage.

Remember your Baseline

The baseline. It is very important to establish your baseline to which to compare Manifest usage so that you fully understand the impact to your operations. A good pilot acts as an A/B test so being able to do side-by-side comparisons and evaluation is the key to success.

- Make sure your current state is documented
- Make sure your current process is documented
- Make sure your workforce's effectiveness or typical results are fully documented
- Make sure the pilot and its metrics of success map to how things are measured today
- Be sure to include some observations about the repeatability of Manifest's impact or suggestions on how to scale the solution within your organization based on pilot observation

08

Share your Results

Share your results with your team – both those that participated in the pilot as well as other teams and individuals that will be interested in understanding more about the Manifest solution. Compile your results, summarize your learnings, offer suggestions on how to scale out the solution and present them to your team. We have found that videos are a great way to tell the story. AR solutions and technology are new to most people and can be harder to understand without seeing it in action. Videos are great for showing augmented instructions, spatial markers, 3D model manipulation. Manifest makes it easy to capture and share videos. Videos will help tell your story to management and other teams in a compelling informative way.

Share your Results with Video

We have seen how effective videos can be in telling the Manifest story – especially communicating the process and results of a Manifest pilot. The stronger and more polished the video, the higher its effectiveness. But a video doesn't have to be polished or perfect to be informative and effective. Here are some of our suggestions for documenting your pilot with video:

- Keep your final video(s) to 1-2min long; use multiple videos if you have more to communicate
- Consider recording more video than needed; it is easier to edit than to shoot more later
- Record video from a head-mounted device while a technician is following work instructions
- Record video of the technician performing the procedure from a phone or camera to provide another perspective
- Record video of creating or authoring step-by-step instructions; digitally documenting procedures with Manifest provides value in itself
- Record a remote expert session and sharing of video or files if that is an important use case
- Contact Taqtile for additional advice or to inquire about how we can help with your videos



ABOUT TAQTILE

Everything Taqtile does, every product or technological innovation the company makes, exists to empower and equip deskless workers with the tools they need to do their jobs, performing complex tasks flawlessly, accurately, safely, and to completion every time. Our flagship product, Manifest, is an augmented reality work instruction platform that helps companies train and empower their workforce to facilitate uninterrupted workflows everywhere, every time. Manifest is used by more than 40 organizations worldwide, including Intel, Jabil, Novartis, Space X, the U.S. Army, and others. Taqtile is the 2020 Microsoft “Mixed Reality Partner of the Year” and a proud member of Fast Company’s “World Changing Ideas” list in 2021. www.taqtile.com

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