



NASA Knowledge Capture and Transfer: A Guide for Supervisors

STANDING ON THE SHOULDERS OF GIANTS...

In the next few years, NASA is anticipating an attrition of talent due to retirements and other transitions. The experiences and knowledge held by these valuable members cannot be easily replaced. This guide was made to help supervisors, program managers, and project managers take steps towards retaining organizational knowledge held by retirees and other transitioning members to ensure their contributions to space exploration are not forgotten but instead built upon.



STEP 1: SET THE CULTURE

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Mission success depends on building upon what we already know. Learn how to establish a culture that support sharing and advancing knowledge at the outset.

STEP 2: KEEP KNOWLEDGE CURRENT

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Understand the available tools and techniques to capture and transfer knowledge every day in your organization, rather than just at the end of a decades long career.

STEP 3: MAINTAIN KNOWLEDGE THROUGH TRANSITIONS

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When departures are imminent for retirement or transitions, learn how to prioritize the most critical knowledge and capture their legacy before they leave!



SET THE CULTURE

Transitions may be an opportunity for change and growth, but they may also lead to a huge loss of organizational and contextual knowledge, such as how and why things worked or did not work in the past. An ineffective plan or lack of a strategy to capture and transfer this knowledge can lead to a loss of productivity and decreased efficiency. It can make it more difficult and frustrating for others to fill the gap left by those who depart. Worst case, it can lead to a repeat of past mistakes, safety issues, or even mission failure.



As a supervisor and leader, it is important for you to decide how to prioritize knowledge sharing in your team or organization. Here are some questions to ask yourself when developing a strategy:

- Have I identified critical knowledge for the organization? Is anyone the sole owner of critical knowledge? Are they planning to transfer or retire soon?
- Do I encourage collaboration, trust, and openness so that people will be more willing to share knowledge?
- Is there a system in place that documents processes and contextual knowledge? Does everyone know how to access it?
- Have I built time for knowledge capture into project plans and processes from the start? Do I emphasize that knowledge capture and transfer is not a competitor of technical work, but an integral part of it?
- Have I planned ahead to capture and transfer knowledge continually and not just when someone leaves my team?

Contact your [Center Chief Knowledge Officer](#) and visit the [KC&T website](#) for more information!



KEEP KNOWLEDGE CURRENT



Don't wait until the last minute to capture and transfer knowledge! These tools and techniques can help you ensure that knowledge capture and transfer is "built-in" to your everyday processes and normal operations. This will ensure productivity, more seamless transitions, and increase your team's efficiency.

- **Onboarding:** Add a knowledge transfer portion to your onboarding plan for new employees. Consider including a review of lessons learned, introduction to resource sharing, and training or shadowing. Visit the [KC&T website](#) for a video that provides an overview of APPEL KS programs and services that your new employees may benefit from.
- **Mentorship Programs:** Whether formal or informal, adopting a mentoring program is a great way to establish a continual transfer of knowledge- specifically tacit knowledge that is not easily documented on paper. Encourage or match experienced employees with less experienced members of your team. Also consider leveraging existing mentorship programs. Visit the [KC&T website](#) for links to some example programs.
- **Documentation of Roles:** It is important to identify roles in your organization, along with the associated tasks and knowledge that accompanies those roles. This will help those stepping into those roles understand their job and help you identify any information silos.
- **Cross Training/Detailing:** Don't put all your eggs in one basket. Allowing your employees to cross train can ensure that all knowledge about a specific process or program is not owned by only one person. Check out NASA's Talent Marketplace and Headquarters Detail Development for opportunities.
- **Lessons Learned:** Have a recurring call for lessons learned (ex. every six months) and document them. Share these lessons learned with the rest of your team- via webinar, video, newsletter, e-mail, or presentation. Reference the NASA Lessons Learned System website.
- **Software Solutions:** Important knowledge is often shared in emails, conversations, and documents that are not readily accessible to the team. Team's Wikis, SharePoint, and some chat features may be a digital solution to knowledge sharing- especially when teams are geographically separated or teleworking. Set expectations on what knowledge your team should be documenting and what documents and resources belong on a shared platform.
- **Publishing:** Encourage your team to publish their work through papers, technical presentations, lessons learned, video capture, and recorded seminars/webinars.



MAINTAIN KNOWLEDGE THROUGH TRANSITIONS

It's never too late! Once you know someone is leaving, here are some tools and techniques to ease the transition, ensure smooth operations, and capture any last-minute knowledge!



- **Transition Plan:** As soon as you know someone plans to retire or transition out of your organization, sit down with them to come up with a plan for knowledge capture and transfer. Remind them that their work is valued, and you want to ensure that their legacy will continue. Ideally, a plan will be in place to overlap with their successor. If not, there are other methods available below to help with the transition. Visit the [KC&T website](#) for transition checklists that can help when developing a transition plan.
- **Shadowing:** If time allows, shadowing is the best method for transferring knowledge to your new employee or team member. The transition checklists on the [KC&T website](#) can also be used to guide the shadowing process and facilitate discussions.
- **Continuity Book:** Give your departing employee time to create or update a physical or electronic continuity book, especially if they will not be able to overlap with their successor.
- **Interviews/Panels:** Interviews and panels can be a great way to capture those big lessons learned and experiences from those who are leaving your team. Consider an interview session or panel (in person or virtual), with the rest of your team in attendance. Record the session for others to watch.
- **Video Capture:** Video capture is an excellent way to pass on information- especially that which is easier to “see”. 3–5-minute clips can pass information without overwhelming viewers. See the [KC&T website](#) for links to video capture tools and interview tips.
- **Files and Records Transfer:** Ensure that any files, records, or communications that may be on your departing member’s computer (or hard copies) are transferred to the team prior to leaving.
- **Post Departure Communications:** Where is your departee going after their transition or retirement? Will they be available to contact after their departure or through an Alumni Association?

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