

Controlling Resources Artifacts: Checklist

Process Groups and the Examination Content Outline (ECO)

The *Process Groups: A Practice Guide* categorizes the control and management of physical resources (also called material resources) as a process separate from that of managing people. Can you see how Control Resources might also be needed in concert with the process described as Acquire Resources?

Process Groups: A Practice Guide Categorization of Resource Management
Plan Resource Management (planning)
Estimate Activity Resources (planning)
Acquire Resources (executing)
Develop Team (executing)
Manage Team (executing)
Control Resources (monitoring and controlling)

In the *Examination Content Outline (ECO)* this process is addressed along with human resources management in Domain II (Process), task 5: Plan and Manage Budget and Resources.

The bottom line is the project manager and team must ensure that the physical resources assigned to the project are available when they are needed—in the right place and in the right quantity.

In the Control Resources process, the project manager also monitors the amount, costs, and quality of physical (or material) resources being used, and compares that to what was planned. If there are any discrepancies between the planned versus actual, corrective action may be necessary.

Remember the process of Integration and how project processes are related. Imagine a team of construction workers arriving on site only to find that the building materials and construction equipment have not yet arrived. A resource issue like this could impact not only the plan for resource management, but also those for schedule and cost, and potentially scope and quality.

A resource management plan indicates how physical resources should be acquired, utilized, controlled, and released. The project manager also uses other project artifacts and methods to control project resources as shown in the following two checklists. Review these to better understand the Control Resources process.

Control Resources Artifacts Checklist

The following project documents may be used to control resources.

- **Agreements/Contracts** A contract is needed if any of the physical resources being used on the project are obtained from a source external to the project. A contract includes details on the procurement as well as the seller's contact information in case issues arise related to the delivery or quality of the resources, or if additional resources are needed from the same source.
- **Work Performance Data** This documentation provides measurements of resources used, dates they arrived, and whether they worked as intended. Analysis of work performance data, the issue log, and other inputs gives the project manager an idea of how actual resource usage compares to the plan. Methods are then used to evaluate ways to address any variances from the plan.
- **Other Project Documents** including but not limited to:
 - ✓ **Impediment board** Specific to adaptive teams, this visual tool allows the team to track issues and risks associated with the project.
 - ✓ **Issue log** This document provides information about current issues regarding resource usage on the project. Issues might include availability (over- or under-supply), usage (more resources or less resources being used than what was planned), quality discrepancies, and cost overruns related to resource usage.
 - ✓ **Lessons learned register** The project manager may be able to benefit from previous project experience with resource control and from historical lessons learned from other similar projects.
 - ✓ **Resource assignments** Resource assignments show anticipated resource usage and where the resources are coming from.
 - ✓ **Project schedule** The schedule indicates what resources are planned to be used, on which activities, and when they are needed.
 - ✓ **Resource breakdown structure** Resource requirements are likely documented in a resource breakdown structure, which may be referenced by the project manager when a physical resource needs to be reordered or replaced.
 - ✓ **Resource requirements** Resource requirements include what materials, supplies, and equipment are needed.
 - ✓ **Risk register** The risk register includes information on potential risks related to the acquisition and use of physical resources. The project manager and team must be aware of these risks, so they are able to recognize risk triggers and initiate risk responses. Newly identified risks to physical resources may be added to the risk register throughout this process.

Control Resources Methods and Results Checklist

Any of these methods may be used as part of controlling resources.

- Performance Reviews** The project manager may undertake a performance review to analyze actual versus planned resource usage and performance. Cost and schedule data may be included in this analysis to determine possible causes of variance from the resource management plan.
- Trend Analysis** The project manager may compare measurements taken throughout the project to assess resource usage and then use that information for future projects. This process also compares data to determine whether resource performance is improving or worsening.
- Alternatives Analysis** Options for dealing with variances—such as purchasing more or different resources or adding staff to expedite the use of those resources—may be evaluated to determine the most effective way to bring physical resource utilization back to what was planned, or to accommodate improvements in usage. For each option, the project manager might consider factors such as availability, quality, cost, and speed. The options are weighed to determine the most beneficial and cost-effective solution.

Also note that the project manager may use cost-benefit analysis to determine the most cost-effective way to correct a problem or improve a situation. This may be performed as part of alternatives analysis.

- Using the Project Management Information System (PMIS)** The PMIS can be used to track, access, and analyze data on resource usage and to problem-solve issues regarding resource management. Stored in the PMIS, these results are accessible throughout the organization. The outputs of the Control Resources process include work performance information, change requests, and updates to project artifacts and the project management plan.
- Creating Work Performance Information** Did you notice that work performance data is an input to this process, and work performance information is an output? The difference is that the work performance data is raw data. It is analyzed and used to compare actual to planned results to create work performance information.
- Updating Project Artifacts** Documents that were inputs to controlling resources may be updated based on the work of that same process. These documents may include but not be limited to the:
 - ✓ Project management plan (specifically the resource management plan)
 - ✓ Issue log
 - ✓ Lessons learned register
 - ✓ Resource assignments
 - ✓ Project schedule
 - ✓ Risk register
 - ✓ Resource breakdown structure
 - ✓ cost baseline
 - ✓ quality management plan