

Process Group Actions Review: Exercise and Checklists

Good Times to Try These Exercises

This article features exercises to better understand the Process Groups model when learning project management. The following are suggested milestones during your exam prep to practice these exercises. You do not necessarily have to repeat the exercise each of these times, but use your own judgment as to which items you still need review at these or other times during your study:

- After you have read through to page 75 in Rita Mulcahy's™ *PMP® Exam Prep* book, 11th edition (Prep Book). Give special attention to the "Process Groups Model Overview" section (including Rita's Process Chart, pp. 31-44), and the "Project Roles" (pp. 68-75) section before doing these exercises.
- After you have read the entire Prep Book.
- After you have completed your studies and before you have completed your first full practice exam in Rita Mulcahy's™ PM FASTrack Cloud® (FASTrack).
- Just before sitting for the PMP® certification exam, as part of a review to fill your last gaps.

Review of Actions by Process Group

For many people, understanding what the project manager does within each process group uncovers many gaps in their knowledge. Understanding these process groups will help you answer exam questions by identifying: "where am I in the project management process?" In many cases, understanding where you are in the project management process can lead you directly to the answer to the question.

As you complete each of the following exercises, don't concern yourself with getting the perfect answer at first. Yet do not simply skip to the answers. You will learn more from your own attempts to produce the answers first, than you will from simply reviewing the given answers.

Look for gaps in your knowledge and note your gaps in your Exercise Notebook. Then spend some time making sure you research each knowledge gap in the Prep Book. Remember, many questions on the exam will include common errors in project management. You need to know the activities that should be done during each part of the project management process.

Exercise: Initiating Actions

What are the specific actions required to complete project initiating? Since what needs to be done is tailored to the specific project, all actions may not always be practical or necessary. Would it help you to know that our answer includes over 30 actions? They do not have to be in a particular order. Be as thorough as possible before you look at the answer. Write the answer in your Exercise Notebook.

Answer: The following table provides a list of the actions involved in project initiating. Since what needs to be done varies based on the specific project, it may not be practical to do all these actions on every project. Note that the items in the list are not in any particular order.

Initiating Actions Checklist

- Sponsor(s) selects the project manager.
- Sponsor(s) determines the authority of the project manager.
- Collect historical information.
- Divide large projects into phases. Use project governance rules and apply them to the project.
- Identify stakeholders, and determine their influence, expectations, and impact. Document that information in a stakeholder register.
- Determine high-level requirements, constraints, assumptions, and risks.
- Turn high-level stakeholder needs, wants, and expectations into requirements.
- Make sure the business case and the analysis supporting the need for the project are documented and understood.
- Use the benefits management plan to understand the benefits that the project is expected to deliver to the business.
- Ensure the high-level product scope is documented with as much detail as is practical.
- Understand how the project supports the organization's strategic objectives.
- Collect and use any relevant, existing agreements (including contracts) that might be generating the project or that will be required during the project.
- Determine success criteria and measurable project and product objectives.
- Facilitate the resolution of conflicting objectives.
- Become familiar with the company culture and structure as they relate to the project.
- Find existing processes, standards, and compliance requirements that affect the project.
- Understand how the organization does business (business knowledge) and what governance, procedures, and policies are already in place to use on the project.
- Do planning on a high-level basis.
- Perform high-level estimating for the project schedule and budget.
- Use the high-level planning and estimating data to determine whether the project objectives can be achieved within the given constraints and whether the expected benefits can be realized.
- Determine what form the project charter will take, including its level of detail.
- Coordinate project initiating efforts with stakeholders, including the customer.
- Work with the customer and others to determine high-level acceptance criteria and clarify what is and is not in the project.
- Determine the initial project organization.
- Identify any inherent or required milestones on the project.
- Finalize the project charter.
- Obtain formal approval of the project charter.
- Define the exit criteria for the project (when and why the project or phase should be closed).
- Involve subject matter experts in developing the project charter and identifying stakeholders.
- Develop project documents such as the risk register, the stakeholder register, and the assumption log, including data on identified risks and stakeholders.
- Use stakeholder mapping to analyze data on identified stakeholders to understand their power, interest, and influence.

Exercise: Planning Actions

What are the specific actions to complete during planning? Write the answer in your Exercise Notebook. Our answer shows there are at least 45 actions for this process. Note that Planning is typically done in a certain order as shown here, but you do not need to use this exercise to make sure everything is in order. Just remember to be as thorough as possible before looking at the answer. Use the Rita's Process Chart™ game to order the summary planning activities. See page 44 of your Prep Book for how to use Rita's Process Chart™ game.

Answer Although all the following actions are done during project planning, the level of detail to which each action is performed will vary based on the particular project and approach.

Planning Actions Checklist

1. Determine how you will plan the planning, executing, and monitoring and controlling efforts for stakeholders, requirements, scope, schedule, cost, quality, resources, communications, risk, procurement, changes, and configuration, and put that information into the beginnings of management plans.
2. Refine the high-level requirements from project initiating so they are more specific and detailed, and look for additional requirements, being sure to consider any internal or external analysis, reports, or regulations; analyze and prioritize requirements.
3. Expand on the assumptions identified in project initiating, looking for new assumptions and documenting the details of the assumptions.
4. Refine the high-level constraints (such as resources, schedule, and cost) from project initiating so they are more specific and detailed.
5. Create a description of the project deliverables, the work required to complete those deliverables, and their acceptance criteria (project scope statement).
6. Use the project scope statement to gain approval of the “final” scope from stakeholders before further planning is done.
7. Assess what may need to be purchased on the project. Identify any pieces of work that may be outside the organization's abilities to complete and determine if new equipment or technology is needed to perform the project work.
8. Select the procurement strategy for each contract. Create a draft of the procurement documents for necessary contracts, including bid documents, procurement statements of work, source selection criteria, and contract provisions.
9. Determine what subject matter experts you need on the team to help with project planning.
10. Engage a business representative as a product owner.
11. Break down the deliverables into smaller, more manageable pieces into a WBS (Work Breakdown Structure) (or for agile, create a product backlog).
12. Create descriptions of each WBS entity in a WBS dictionary so that the work can be understood and produced without gold plating.
13. Break down the work packages from the WBS into lists of activities to produce them.
14. Sequence activities and determine predecessors and successors in the network diagram.
15. Estimate resource requirements (such as staff, facilities, equipment, and materials).
16. Meet with managers to gain resource commitments.

17. Decide what level of accuracy is needed for estimates.
18. Use historical data to support estimating time and cost.
19. Involve experts or those who will work on activities (or stories) to estimate (time and cost).
20. Determine how long the project will take without compressing the schedule (determine critical path).
21. Develop a schedule model, evaluate it against the schedule constraint in the project charter, and use schedule compression techniques to reconcile the two to come up with a final schedule for the project management plan.
22. Develop a preliminary budget and compare it to the budget constraint in the project charter. Then develop options to reconcile the two to come up with the final budget for the project management plan.
23. Determine quality policies, practices, and standards, and then determine metrics to measure quality performance.
24. Determine processes to fulfill quality requirements and conform to organizational standards and policies.
25. Determine how you will improve the processes in use on the project.
26. Create a system for recognizing and rewarding the efforts of project team members to help keep them motivated and engaged in project efforts.
27. Plan for acquisition, team building, training, assessment, and release of team members. Plan for physical resources requirements, including acquisition and logistics.
28. Clearly determine all roles and responsibilities so team members and stakeholders know their roles on the project and what work they will need to do.
29. Work with the project team to develop a team charter defining their commitments and interactions with each other, including ground rules for meetings, conflict resolution, etc.
30. Determine what information you need from other projects and what information you will share with the organization and other projects.
31. Plan what will be communicated on the project; to whom, by whom, when, and how.
32. Plan how to involve stakeholders and manage their expectations during the project.
33. Complete detailed risk identification, subjectively analyze risks (qualitative risk analysis), perform quantitative risk analysis as necessary and do risk response planning.
34. Iterations—go back and update project plans and documents as necessary to work toward a project management plan that is bought into, approved, realistic, and formal.
35. Finalize the procurement statement of work and other bid documents for each contract.
36. Look for potential positive and negative interactions with other projects that could affect the project.
37. Determine the processes that will be used to request, approve, and manage changes on the project.
38. Develop the configuration management plan, outlining naming conventions and processes for document versioning, storage, and retrieval.
39. Plan ways to measure project performance, including determining the measurements to be used, when they will be taken, and how the results will be evaluated.
40. Determine what meetings, reports, and other activities you will use to control the project to the project management plan.

41. Finalize the “execute” and “monitor and control” aspects of all management plans. Document closing requirements and actions.
42. Develop the final project management plan, project documents, and performance measurement baseline by performing schedule network analysis, looking for options, and confirming that project objectives can be met.
43. Gain formal approval of the project management plan from the sponsor, team, and managers of resources.
44. Hold a kickoff meeting with key stakeholders, team members, managers of team members, and the customer to make sure everyone is on the same page and to gain buy-in.
45. Throughout the project, return to the planning processes to do rolling wave planning (progressive elaboration or iteration) as more information becomes available. Results will likely require change requests and updates to the project management plan and project documents.

Exercise: Executing Actions

What are the specific actions to complete during executing? Write the answers in your Exercise Notebook. Remember to be as thorough as possible before looking at the answer. Our answer shows there are at least 48 actions. They do not have to be in a particular order.

Answer Although all the following actions are done during project executing, the actions will be tailored, and may be done in a different order, based on the particular project and approach.

Executing Actions Checklist

- Communicate your expectations for stakeholders and the project and manage the involvement and needs of all stakeholders throughout the project to ensure everyone has a common understanding of the work.
- Implement the most up-to-date version of the project management plan, including revisions made as a result of control activities.
- Complete work packages This is specifically for project management activities. The team completes the work packages for the product of the project.
- Collect, document, and share lessons learned.
- Establish and manage communication channels.
- Evaluate how effectively the team members function as a team.
- Implement approved changes, including corrective actions, preventive actions, and defect repair.
- Confirm that practices and procedures are being followed and are still appropriate for the project.
- Produce and distribute reports on project performance.
- Hold team-building activities.
- Use the team charter for guidance on team interactions. Follow ground rules at team meetings.
- Obtain needed training for team members.
- Exchange information about the project according to the plan, and solicit feedback to ensure communication needs are being met.
- Remove roadblocks.
- Achieve work results that meet requirements.
- Meet with managers to reconfirm resource commitments.
- Keep managers apprised of when their resources will be needed on the project.
- Commit, manage, and release physical and team resources in accordance with the project management plan.
- Guide, assist, communicate, lead, negotiate, facilitate, and coach.
- Use your technical knowledge.
- Hold meetings to identify and address issues, assess risks, and keep the project work moving forward.
- Manage stakeholder engagement and expectations, increase project support, and prevent possible problems.
- Focus on preventing problems rather than just dealing with them as they arise.

- Make sure all team members have the skills, information, and equipment needed to complete their work.
- Look for exceptions to the approved project management plan in team members' performance, rather than checking up on every person's work.
- Recommend changes to be evaluated in the Perform Integrated Change Control Process.
- Follow organizational policies, processes, and procedures.
- Increase the effectiveness of processes.
- Make updates to the project management plan and project documents to reflect current information about the project.
- Create recommendations for the performing organization to increase its effectiveness.
- Ensure continued agreement from the stakeholders to the project management plan.
- Keep everyone focused on completing the project to the project charter and project management plan.
- Keep the project's business case and benefits management plan in mind while managing the project, especially when problems occur.
- Solve problems.
- Determine where project changes are coming from and what you can do to eliminate the root cause of the need for change.
- Determine final team members and other resources and bring them on to the project as needed.
- Recognize and reward the team and individuals for their work and performance on the project.
- Gather initial measurements and details about activities of project work (work performance data).
- Implement approved process improvements.
- Use an issue log to record project issues and details about their resolution, including who is responsible for resolving each issue and the expected timeline.
- Obtain seller responses to bid documents.
- Review proposals, bids, and quotes; negotiate contract terms with prospective sellers; and manage the evaluation and selection of sellers.
- Manage the integration of sellers' work and deliverables into the overall work and deliverables of the project; manage any seller-related conflicts or challenges.
- Expend and manage project funds.
- Facilitate conflict resolution using conflict resolution techniques.
- Assess individual team member performance.
- Update human resource records of team members to reflect new skills acquired while working on the project.
- Carry out contingency plans in response to risk triggers.

Notice that "solves problems" is only one of 48 items on the list of actions to be done during executing. As a project manager, you should be focused on preventing problems so you do not have to deal with them. With proper project management, problems occur less often, and should not have a major impact on the project.

Assume risk management efforts have identified and evaluated, and that contingency plans are in place to deal with risks that have high probability or impact ratings. Instead of handling risk events, you can spend your time engaging stakeholders and encouraging team members.

Did you list meetings? Effective agile teams, for example, have focused daily stand-up meetings to keep the team on track to complete their work for an iteration. The occasions when the team gets together are too important to just focus on collecting status. How about reviewing risk triggers and upcoming contingency plans during meetings?

Note: Keep this in mind to summarize executing activities: Work according to the plan; change the plan as needed or indicated. Lead, guide, and engage; remove impediments.

Exercise: Monitoring & Controlling Actions

What are the specific actions to complete during monitoring and controlling? Write the answer in your Exercise Notebook. Be as thorough as possible before looking at the answer. Here, we list 48 actions. They do not have to be in a particular order.

Answer The following actions are done during project monitoring and controlling. The order and level of detail in which each action is performed will vary based on the particular project and approach.

Monitoring and Controlling Actions Checklist

- Measure project performance according to the planned measures in the management plans.
- Measure against the performance measurement baseline.
- Analyze and evaluate work performance data.
- Determine variances.
- Use your judgment to determine what variances are important and if they warrant recommending a change or corrective action.
- Recommend changes, including defect repair and preventive and corrective actions. Do not just wait for others to recommend them.
- Make or obtain a decision in integrated change control about whether changes should be approved, rejected, or deferred.
- Track and evaluate naming conventions, version control processes, the storage and retrieval system (configuration management), and the use of the PMIS. This ensures everyone knows which version of the project or product documentation is the latest version.
- Control scope, schedule, and cost to their baselines.
- Perform procurement inspections and reviews of seller performance to the contract.
- Refine control limits as needed.
- Identify the root causes of problems with the help of techniques such as process analysis (for example, Lean, Kanban, and Six Sigma).
- Obtain formal acceptance of interim deliverables from the customer.
- Identify the need for replanning.
- Replan and make updates to the project management plan and project documents to reflect approved changes and updates to the project.
- Evaluate stakeholder relationships and involvement to determine if they require improvement.
- Manage the schedule and cost reserves.
- Recalculate how much the project will cost and how long it will take and create forecasts.
- Obtain additional funding if needed.
- Prepare work performance reports from the analyzed data and measurements.
- Hold periodic quality inspections.
- Make decisions to accept or reject completed deliverables.
- Evaluate the effectiveness of implemented corrective actions.
- Assess the effectiveness of project control systems.

- Spend time trying to improve quality.
- Determine if project controls need to be updated.
- Identify and analyze trends.
- Evaluate the effectiveness of risk responses in a risk review.
- Look for newly arising risks.
- Reanalyze identified risks.
- Use milestones as a project control tool.
- Observe and analyze.
- Use variance reports to help correct small problems before they become serious.
- Calculate estimate to complete.
- Use and interpret earned value calculations.
- Use quality control tools such as inspections, histograms, performance reviews, and cause-and-effect diagrams.
- Influence any factors that could result in the project's change control and configuration management measures being bypassed.
- Control changes.
- Control to make sure that only approved changes are implemented.
- Work with the change control board.
- Evaluate stakeholder satisfaction.
- Control procurements through actions such as reviewing, approving, and paying invoices, administering claims, and performing inspections and audits.
- Validate defect repair.
- Determine where project changes are coming from and what you can do to eliminate the root cause of the need for change.
- Consider the project's business case and the organization's strategic objectives when analyzing change requests.
- Use active listening, inquiry, and data gathering to confirm that communications and stakeholder engagement efforts are effective and working as planned. Make or recommend needed adjustments.
- Evaluate the use, cost, and other aspects of physical resources. Make appropriate changes and adjustments.
- Close procurements after final deliverables are accepted.
- Update the risk report to keep key stakeholders informed about the status of overall project risk and the highest-ranked individual risks.

When a project has been planned appropriately, most control efforts result in information that shows work is being done according to the plan and that scope is being produced to the agreed-upon standards and metrics. Results of measurements and outputs of other monitoring and controlling efforts are added to the project management plan and project documents as updates. In fact, project artifact updates are outputs of every monitoring and controlling process. Records of the work, measurements, and lessons learned are used for reference throughout the project and on future projects. In addition to identifying variances, measurements can be useful in trend analysis, forecasting, and estimating the remaining work.

Exercise: Closing Actions

What are the specific actions required to complete closing once the work is done or the project is terminated? This is one of the most ignored processes in project management. Take time to understand the concepts. You'll do better on the exam and become a better project manager.

There is only one process for closing: **Close Project or Phase**; there may be many activities associated with it. We have 18 actions in the answer. In your Exercise Notebook, write your answer before looking at ours.

Closing Actions Checklist

- Confirm that all project requirements have been met.
- Verify and document that the project, or project phase, meets completion or exit criteria set in place during project planning.
- Obtain formal (legal if needed) sign-off and final acceptance of the product of the project from the customer.
- If any issues prevent final acceptance by the customer, negotiate a settlement or other resolution.
- If the project was terminated before completion, document the reasons for termination and the status of the project and deliverables.
- Make final payments, and complete cost records.
- Gather final lessons learned and share with the organization.
- Update project records.
- Ensure all the project management processes are complete.
- Update corporate processes, procedures, and templates based on lessons learned.
- Complete project (or phase) closure.
- Analyze and document the success and effectiveness of the project.
- Create and distribute a final report of project (or phase) performance.
- Index and archive project records.
- Evaluate customer satisfaction regarding the project and the deliverables.
- Hand off the completed project deliverables to the appropriate stakeholders (the customer, operations and maintenance, etc.).
- Confirm all contracts have been formally closed; update and archive records.
- Celebrate!

Confirming that all the requirements have been met may seem unimportant; however, most studies show that many requirements are not met on projects. This confirmation needs to take place and can be done by reviewing the project management plan and accepted deliverables. You would have had many interim deliverables accepted before this and worked with the customer representative closely, so formally Closing should have no surprises. If we were discussing an agile approach, remember that iteration (or sprint) reviews are built into each iteration cycle.

What about handing off the completed project deliverables to operations and maintenance? Work involved in completing such a transfer is considered part of the project. The work could include meetings to explain the project nuances, training, documentation for maintenance, and other activities as needed. On large initiatives, this component could even be a separate project.

Now let's think about formal sign-off and acceptance. These are important because they confirm that the customer considers the project completed and accepts the whole project. Without that acceptance, you cannot be sure the project was finished.

Measuring customer satisfaction is another important part of project closing. Have you ever had a customer accept your work although they were not happy with the project? Just like lessons learned, measuring customer satisfaction should be ongoing throughout the project, but it must occur during project closing.

For the exam, make sure you understand the value of historical records and the project manager's and team's responsibility for creating them. Historical information is collected throughout the project, but it is during project closing that the final versions of lessons learned are compiled and archived in the lessons learned repository.

Some project managers consider completing the final project performance report and holding an end-of-the-project celebration to be unimportant. However, the final report communicates to all stakeholders and the entire organization the value achieved by the team's project efforts.