Project Monitoring and Controlling

CS413 - Software Engineering Project Management

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Key Terms

- **Monitoring**. Collecting project performance data, producing performance measures, and reporting and disseminating performance information

Key Terms

- **Controlling**. Comparing actual performance with planned performance, analyzing variances, assessing trends to effect process improvements, evaluating possible alternatives, and recommending appropriate corrective action as needed

Key Terms

- **Control Account**. A management control point where scope, budget, actual cost, and schedule are integrated and compared to earned value for performance measurement

Key Terms

- **Control Chart**. A graphic display of process data over time and against established control limits

Key Terms

- **Corrective Action**. An intentional activity that realigns the performance of the project work with the project management plan

Monitoring and Controlling Process Group

- Consists of those processes required to
  - Track, review, and regulate the progress and performance of the project
  - Identify any areas in which changes to the plan are required
  - Initiate the corresponding changes

Monitoring and Controlling Process Group

- The key benefit of this Process Group is that project performance is measured and analyzed at regular intervals, appropriate events, or when exception conditions occur in order to identify and correct variances from the project management plan

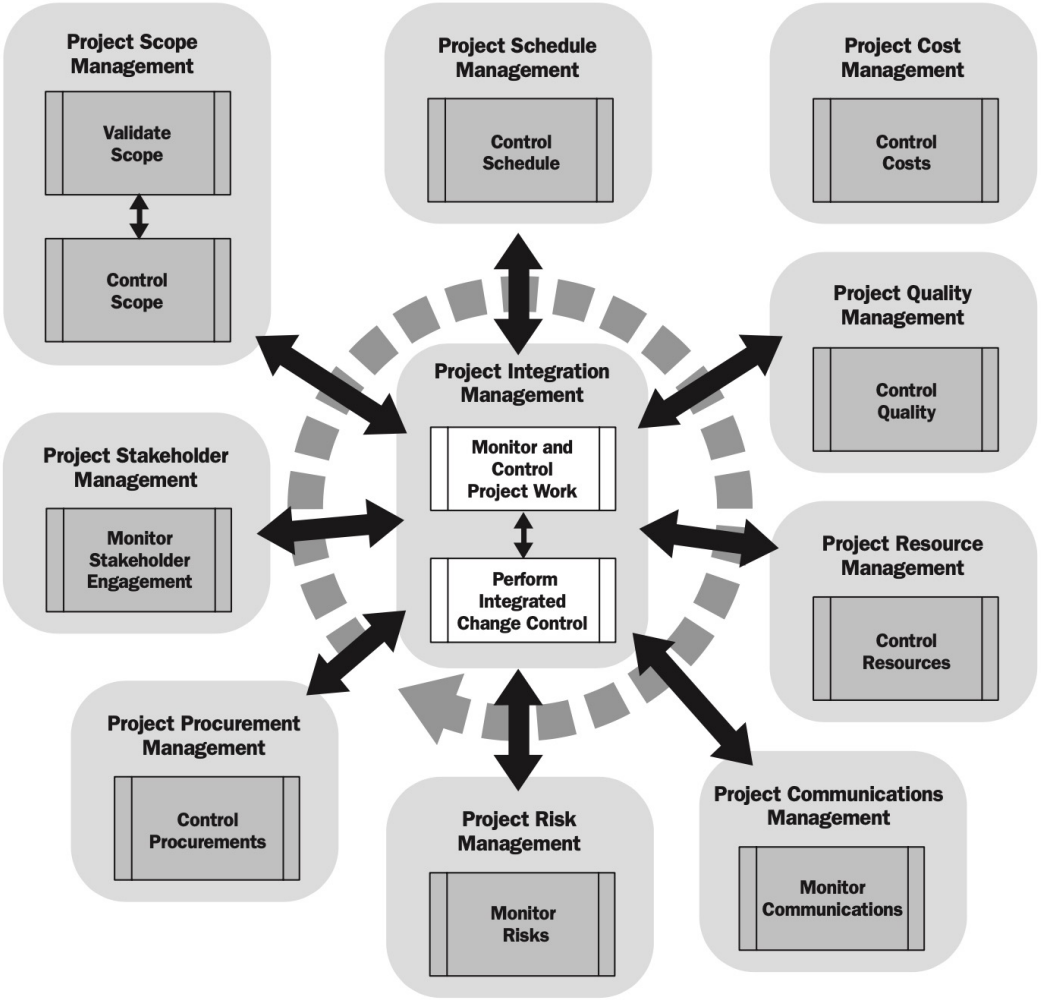
Monitoring and Controlling Process Group

- Continuous monitoring provides the project team and other stakeholders with insight into the status of the project and identifies any areas that require additional attention

Monitoring and Controlling Process Group

- The Monitoring and Controlling Process Group monitors and controls the work being done within each Knowledge Area, each Process Group, each life cycle phase, and the project as a whole

Project Monitoring and Controlling



The dashed circular arrow indicates that the process is part of the Project Integration Management Knowledge Area. This Knowledge Area coordinates and unifies the processes from the other Knowledge Areas.

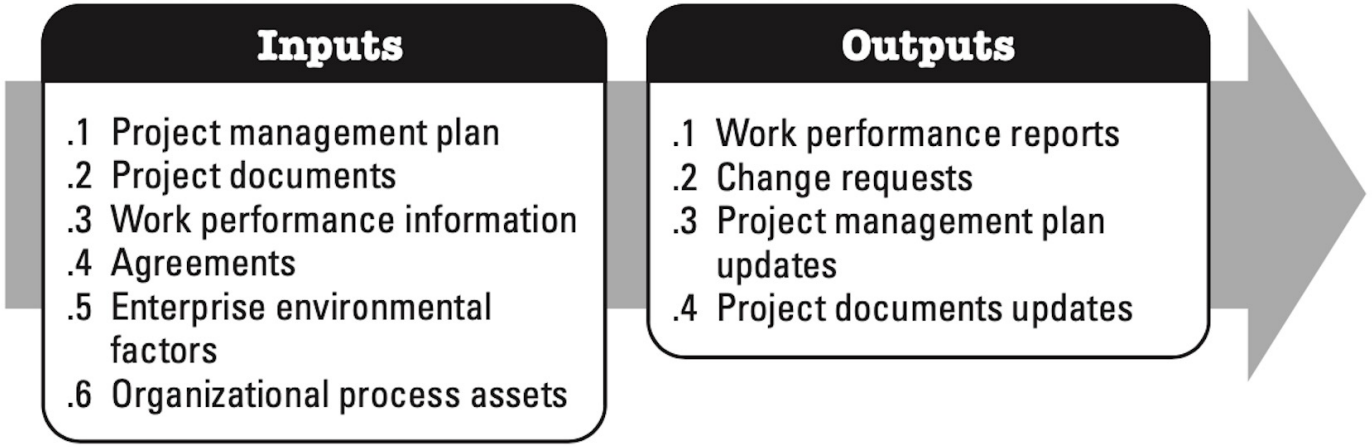
Monitor and Control Project Work

- The process of tracking, reviewing, and reporting the overall progress to meet the performance objectives defined in the project management plan

Monitor and Control Project Work

- The key benefit of this process is that it allows stakeholders to understand the current state of the project, to recognize the actions taken to address any performance issues, and to have visibility into the future project status with cost and schedule forecasts

Monitor and Control Project Work



Monitor and Control Project Work: Inputs and Outputs

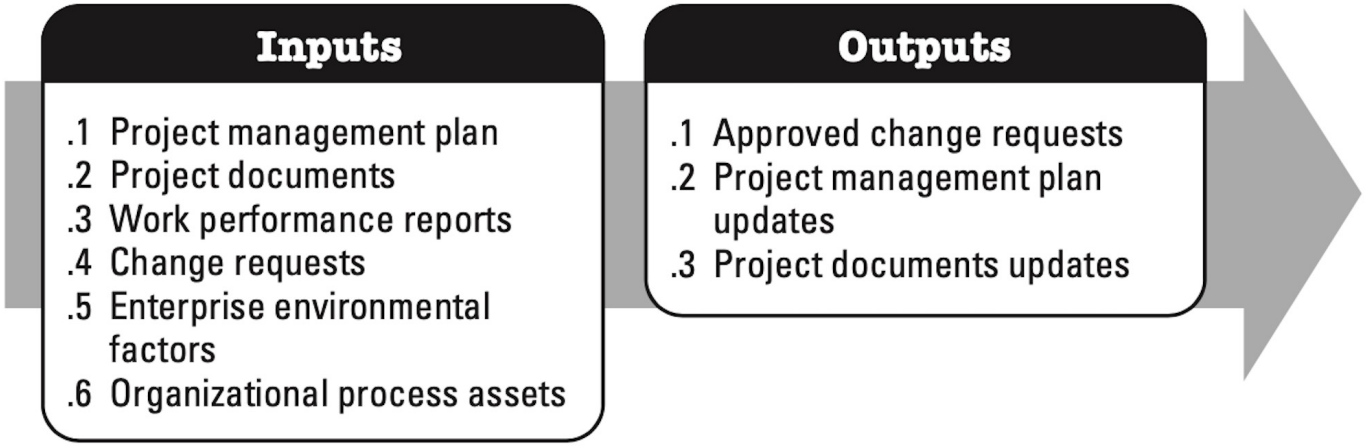
Perform Integrated Change Control

- The process of reviewing all change requests; approving changes and managing changes to deliverables, organizational process assets, project documents, and the project management plan; and communicating the decisions

Perform Integrated Change Control

- The key benefit of this process is that it allows for documented changes within the project to be considered in an integrated manner while addressing overall project risk, which often arises from changes made without consideration of the overall project objectives or plans

Perform Integrated Change Control



Perform Integrated Change Control: Inputs and Outputs

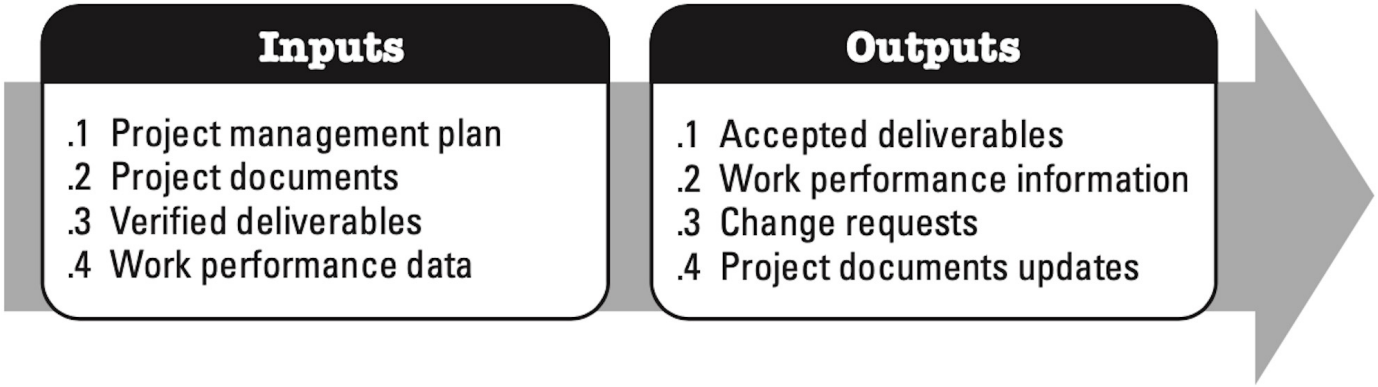
Validate Scope

- The process of formalizing acceptance of the completed project deliverables

Validate Scope

- The key benefit of this process is that it brings objectivity to the acceptance process and increases the probability of final product, service, or result acceptance by validating each deliverable

Validate Scope



Validate Scope: Inputs and Outputs

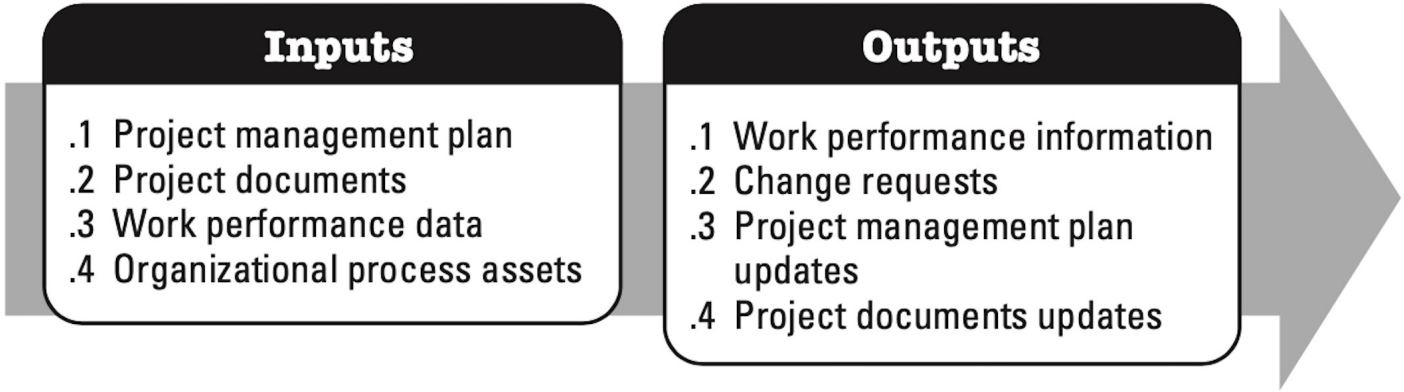
Control Scope

- The process of monitoring the status of the project and product scope and managing changes to the scope baseline

Control Scope

- The key benefit of this process is that the scope baseline is maintained throughout the project

Control Scope



Control Scope: Inputs and Outputs

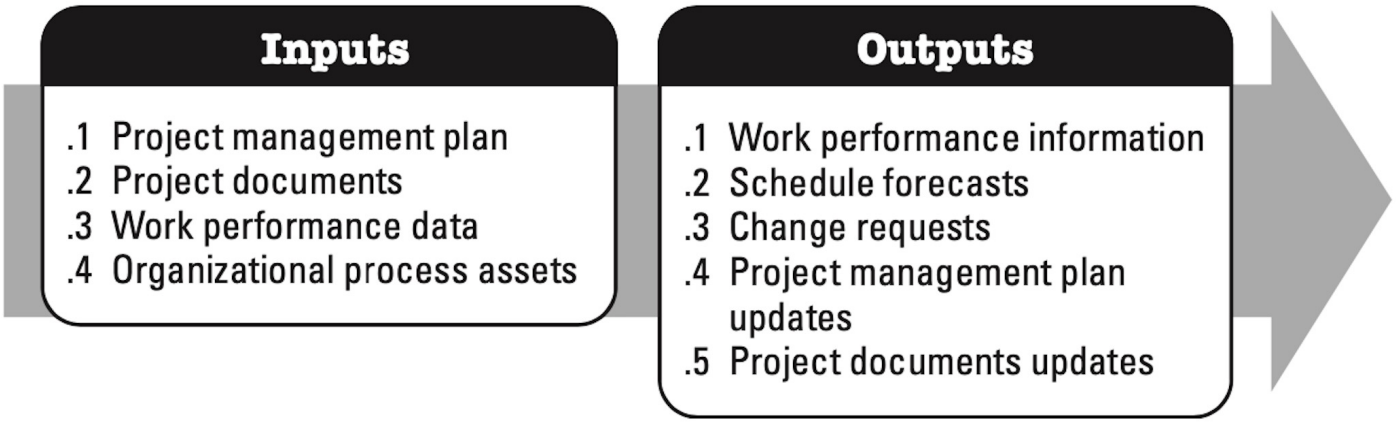
Control Schedule

- The process of monitoring the status of the project to update the project schedule and manage changes to the schedule baseline

Control Schedule

- The key benefit of this process is that the schedule baseline is maintained throughout the project

Control Schedule



Control Schedule: Inputs and Outputs

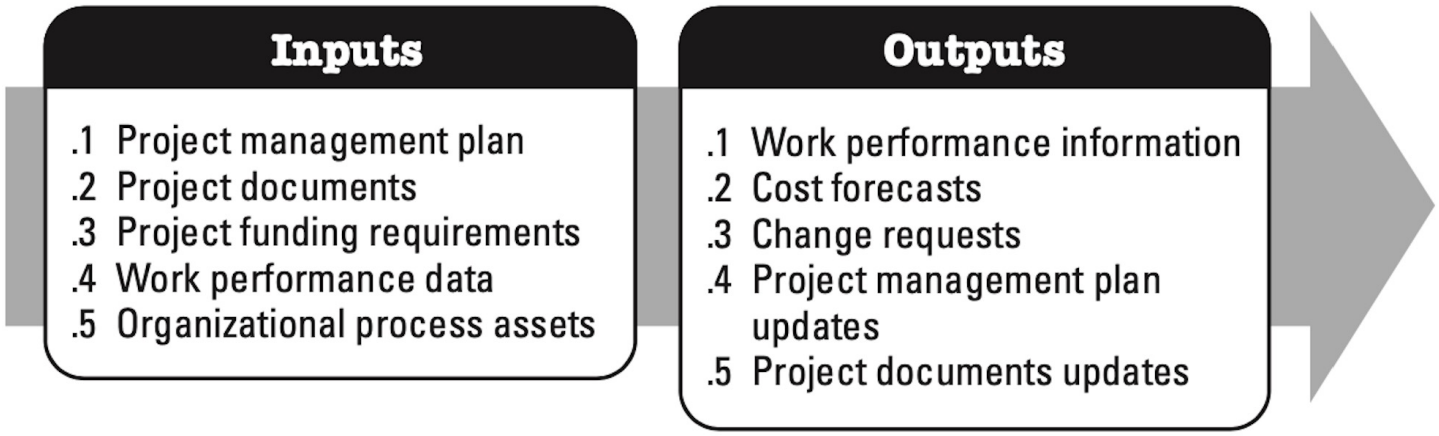
Control Costs

- The process of monitoring the status of the project to update the project costs and managing changes to the cost baseline

Control Costs

- The key benefit of this process is that the cost baseline is maintained throughout the project

Control Costs



Control Costs: Inputs and Outputs

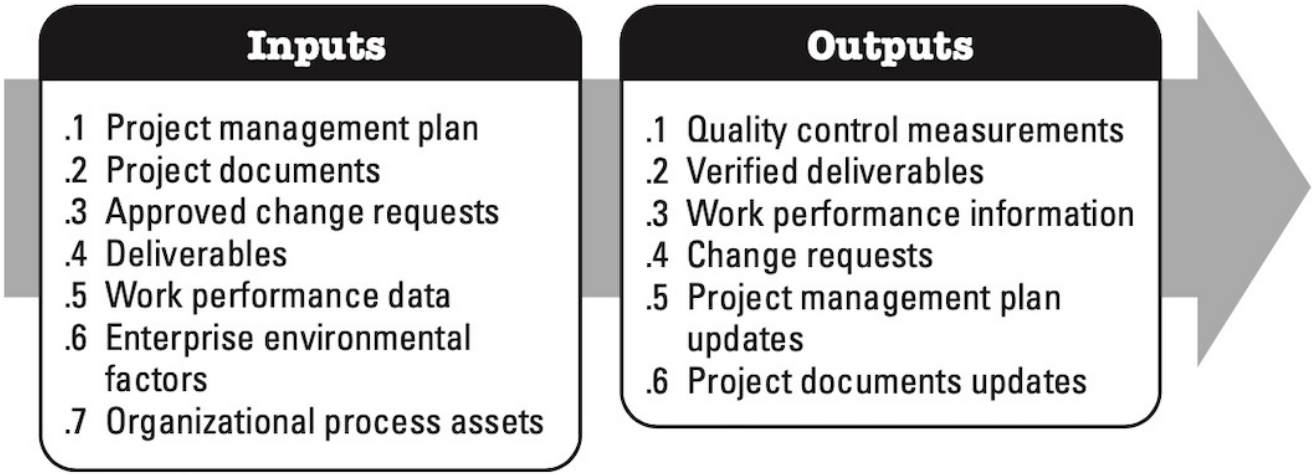
Control Quality

- The process of monitoring and recording results of executing the quality management activities to assess performance and ensure the project outputs are complete, correct, and meet customer expectations.

Control Quality

- The key benefit of this process is verifying that project deliverables and work meet the requirements specified by key stakeholders for final acceptance

Control Quality



Control Quality: Inputs and Outputs

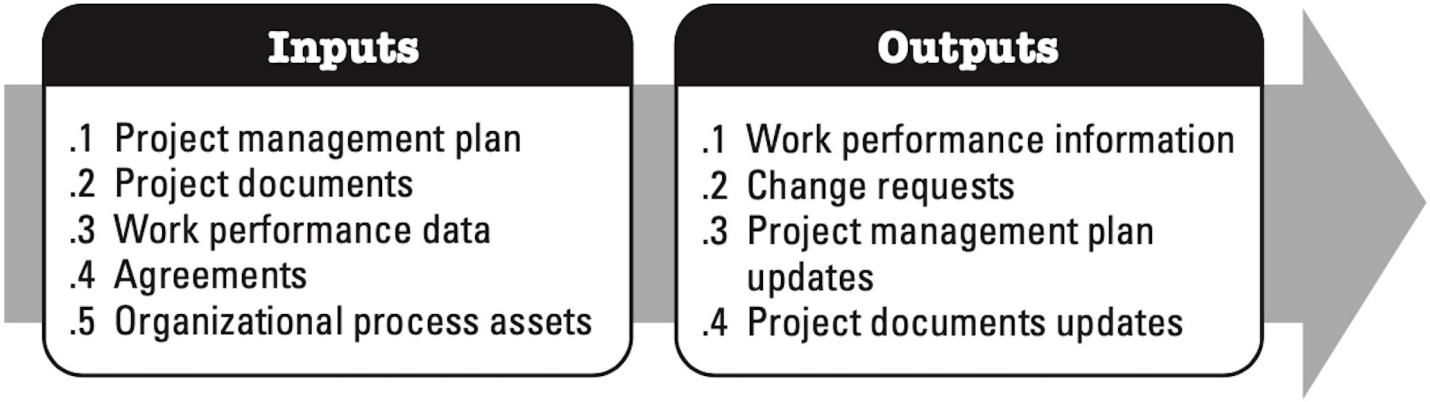
Control Resources

- The process of ensuring that the physical resources assigned and allocated to the project are available as planned, as well as monitoring the planned versus actual utilization of resources and taking corrective action as necessary

Control Resources

- The key benefit of this process is ensuring that the assigned resources are available to the project at the right time and in the right place and are released when no longer needed

Control Resources



Control Resources: Inputs and Outputs

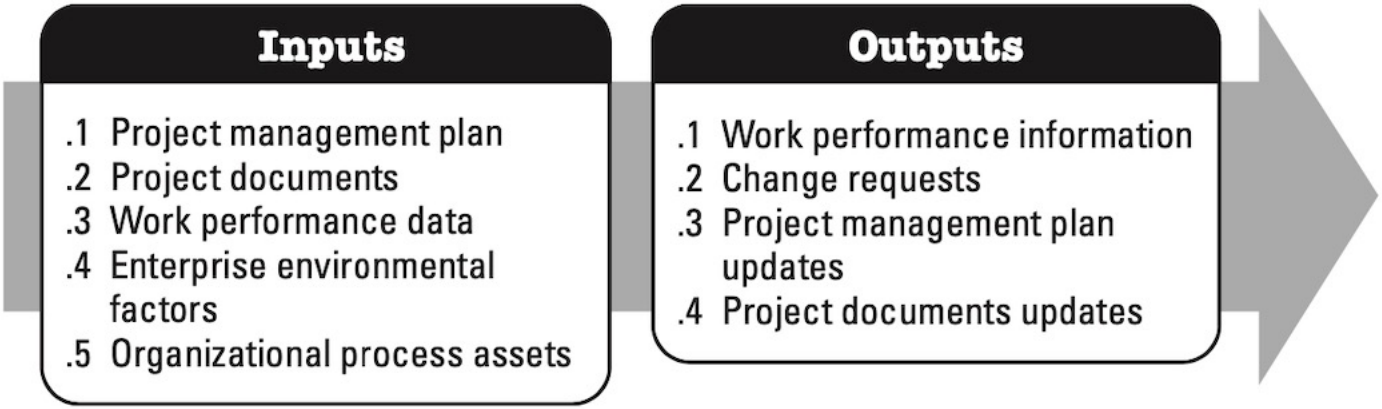
Monitor Communications

- The process of ensuring the information needs of the project and its stakeholders are met

Monitor Communications

- The key benefit of this process is the optimal information flow as defined in the communications management plan and stakeholder engagement plan

Monitor Communications



Monitor Communications: Inputs and Outputs

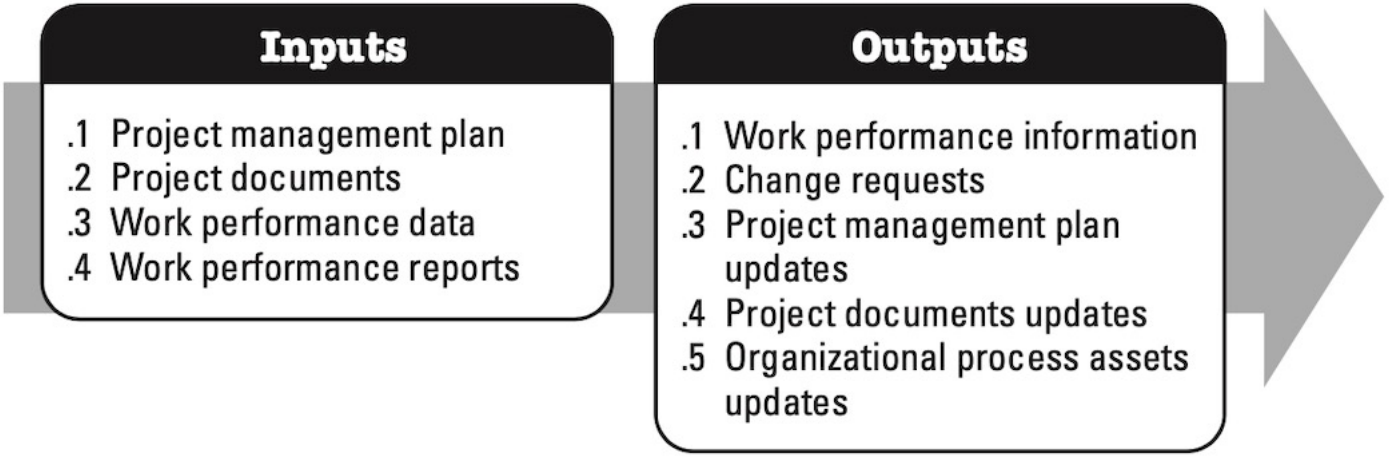
Monitor Risks

- The process of monitoring the implementation of agreed-upon risk response plans, tracking identified risks, identifying and analyzing new risks, and evaluating risk process effectiveness throughout the project

Monitor Risks

- The key benefit of this process is that it enables project decisions to be based on current information about overall project risk exposure and individual project risks

Monitor Risks



Monitor Risks: Inputs and Outputs

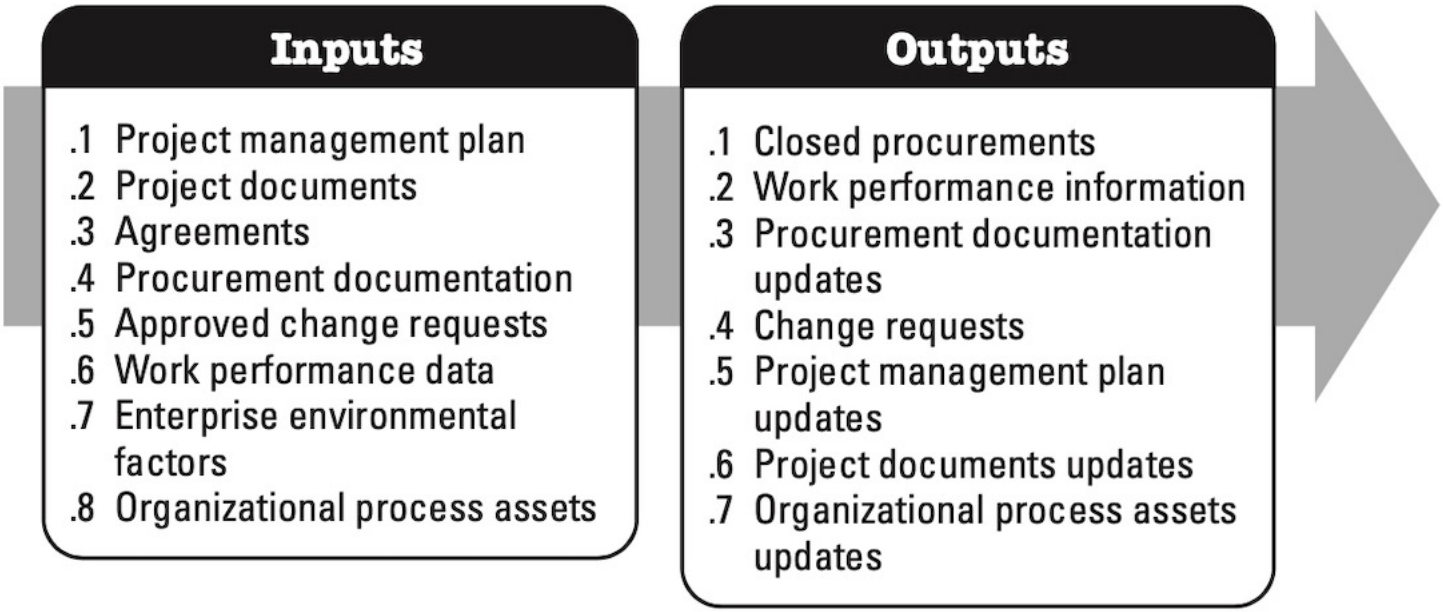
Control Procurements

- The process of managing procurement relationships, monitoring contract performance and making changes and corrections as appropriate, and closing out contracts.

Control Procurements

- The key benefit of this process is that it ensures that both the seller's and buyer's performance meets the project's requirements according to the terms of the legal agreements

Control Procurements



Control Procurements: Inputs and Outputs

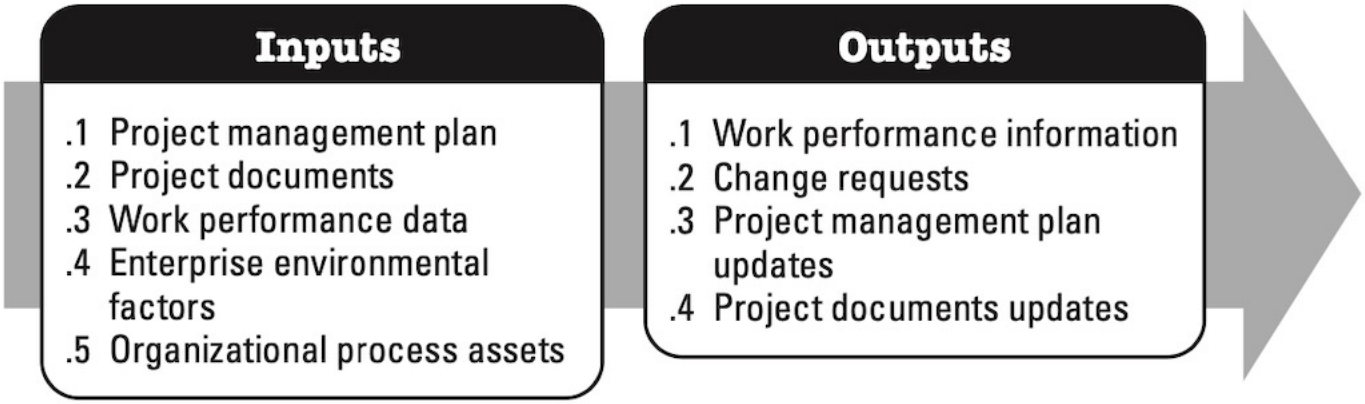
Monitor Stakeholder Engagement

- The process of monitoring project stakeholder relationships, and tailoring strategies for engaging stakeholders through modification of engagement strategies and plans

Monitor Stakeholder Engagement

- The key benefit of this process is that it maintains or increases the efficiency and effectiveness of stakeholder engagement activities as the project evolves and its environment changes

Monitor Stakeholder Engagement



Monitor Stakeholder Engagement: Inputs and Outputs

Reference

- A guide to the project management body of knowledge (PMBOK guide), Sixth Edition, 2017 / Project Management Institute.

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