**[Insert Department Name]**

**Schedule Management Plan**

**[Insert Project Name]**

Version History

| Version # | Date | Author | Key Differences |
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Introduction to the Schedule Management Plan Template

The Schedule Management Plan is created during the project’s Planning Process Phase and is considered a component of the Project Management Plan (PMP). The Schedule Management Plan defines how the project schedule is managed throughout the project lifecycle. The plan provides guidance and sets expectations for project schedule policies and procedures for planning, developing, managing, executing, and controlling the project schedule.

The project schedule is the tool that communicates what work needs to be performed, which resources of the organization will perform the work, and the timeframes in which that work needs to be performed. The project schedule should reflect all of the work associated with delivering the project on time. Without a full and complete schedule, the Project Manager will be unable to understand and communicate the total cost and resources needed to deliver the project.

The following sections are constructed to match the suggested heading structure for the Schedule Management Plan. Each section provides instructions and descriptions to help the reader understand the section’s purpose and how to complete it.

Template style conventions are as follows:

| Style | Convention |
| --- | --- |
| Normal text | Indicates placeholder text that can be used for any project. |
| [Instructional text in brackets] | [Indicates text that is be replaced/edited/deleted by the user] |
| *Example text in italics* | *Indicates text that might be replaced/edited/deleted by the user* |

As you complete the template, please remember to delete all instructional text (including this section) and update the following items, as applicable:

* title page
* version history
* table of contents
* headers
* footers

Update the document to a minor version (e.g., 1.1, 1.2) when minimal changes are made and a major version (e.g., 2.0, 3.0) when significant change are made.

# Introduction

[Enter a high-level introduction to the Schedule management plan here. It should be a brief but comprehensive description of the activities involved in managing the project schedule.]

*Example:*

*The project schedule is an estimated roadmap showing the planned project work activities that are used to achieve stated project objectives. Schedules are useful and important because they provide the project team, sponsors, and Stakeholders with a snapshot of both the project’s progress at a given point in time as well as a glimpse of what’s ahead in the project. The Schedule Management Plan purpose is to define the approach the team will use to develop or create the project schedule as well as the tools and techniques that are employed to monitor and control the project schedule based on project team member progress input. A successfully developed project schedule involves activities such as planning, identification, analysis, documentation, and prioritization of work. Once a schedule baseline is established, changes to the schedule are managed through the project’s Change Control process.*

*The Project Manager reports the project schedule performance information during the normal project status and sponsor meetings. The Project Manager also reports schedule deviations and, if necessary, provides the Project Sponsor with options for getting the project schedule back on track and under control. The Project Sponsor has the authority to approve schedule changes brought forward thought the project’s Change Control process.*

# High-Level Workflows and Activities

[Describe the workflows and activities that apply to managing the project schedule. Examples include describing development and review activities, monitoring and control objectives, responsibilities, timing, and procedures.]

*Example:*

*This section identifies the list of Schedule Management processes, activities, and tasks that will be defined and implemented to establish and manage the project schedule. The identified Schedule Management processes include, but are not limited to:*

* ***Develop Project Schedule*** *– An integrated process consisting of defining activities, sequences, and required resources to complete the project deliverables.*
* ***Monitor and Control Schedule*** *– The process of monitoring and reporting on the progress of project activities as well as managing progress and changes to the schedule baseline to achieve project objectives. If necessary, based on factors such as project size and complexity, the process may be broken down into sub-processes. For example:*
* ***Schedule Activity and Progress Updates*** *– The process of establishing how and at what intervals project activity and progress updates will be collected during the project.*
* ***Schedule Monitoring*** *– The process of establishing how schedule progress updates are compared to the schedule baseline.*
* ***Schedule Control*** *– The process of establishing the control tools and techniques for how the schedule will be managed and how changes will be addressed.*
* ***Schedule Reporting*** *– The process of defining what schedule reporting metrics and reports are necessary for the project, at what intervals reporting should occur, and to what audiences.*

# Tools and Environment

[Schedule monitoring and controlling activities are supported with the use of a scheduling tool and a Schedule Management repository that are capable of supporting the necessary activities. A controlled scheduling tool and repository is critical for Schedule Management as well as Risk, Issue, and Change Control Management activities. It’s common for the original project timing estimates to change due to internal or external risk factors or issues that occur during the project. Using well-defined updating, monitoring, and control techniques, along with a project schedule tool and repository, will allow the project team to develop a full understanding of the change impacts to a project schedule.

Describe the tools and procedures used to develop, monitor and control the project schedule throughout the project lifecycle. Tools may include commercial software packages for the project schedule itself and the Schedule Management repository. If a tool has not been selected, provide the requirements for selecting it. Typically, a repository is a database, spreadsheet, file system, or other data storage system that is created with a tool. The repository is where the project schedule and schedule management documents are maintained. The repository must be auditable to permit evaluation and understanding of project team performance measured against the project schedule baseline over time.]

*Example:*

*The project will use the department’s shared collaboration site [name] as the repository for all project schedule related artifacts. The schedule will be developed in the department’s standard project schedule tool using the approved Work Breakdown Structure document as its basis. The schedule will be managed by the process defined in this schedule management plan. It will also be managed as a configured item through the project’s configuration control process.*

# Roles & Responsibilities

Describe which roles are going to be responsible for performing the various activities described in the Schedule Management processes.

Example:

| Name | Role | Responsibility |
| --- | --- | --- |
| [Name] | *Project Sponsor and/or IT Sponsor and/or Governance Group* | * *Reviews and approves final schedule baseline and schedule progress reports.*
* *Provides overall guidance and mentoring.*
 |
| [Name] | *Project Manager* | * *Leads the team in the development of the Schedule Management Plan and the Project Schedule.*
* *Leads the project team in Schedule Management related activities.*
* *Reviews, evaluates and provides feedback on schedule progress reports and time-risk recommendations from the Project Scheduler.*
* *Provides regular status information in meetings with the Project Sponsor and steering committees.*
 |
| [Name] | *Functional Managers* | * *Reviews and approves time estimates for staff reporting to them.*
* *Notifies the Project Manager and Project Scheduler of workload changes that may affect the schedule.*
* *Works with the Project Manager and Project Scheduler on resource schedule-related items for risks, issues, and possible changes.*
 |
| [Name] | *Project Scheduler* | * *Assists in the development of the Schedule Management Plan.*
* *Responsible for the daily schedule-related analysis and update activities.*
* *Leads the schedule management activities, communicates schedule status, maintains the project schedule and provides updates.*
* *Makes schedule risk, issue and change recommendations to the Project Manager.*
* *Is considered the subject matter expert for the Schedule Management processes.*
 |
| [Name] | *Project Team Members* | * *Notifies the Project Manager and Project Scheduler about possible schedule risks and issues.*
* *Assists with schedule estimating activities.*
* *Provides accurate time estimates for project work packages.*
* *Provides accurate progress reporting during the project.*
 |
| [Name] | *Business Partners* | *Reviews project schedule and schedule management status and progress documents.* |

# Schedule Management Process

[Define the Schedule Management process clearly enough to identify the necessary steps, activities, and responsibilities for schedule development, updates, monitoring and control for the entire project lifecycle. The Project Manager must ensure the plan facilitates project success and does not become an overwhelming task and impact to the project. This section establishes the Schedule Management framework the project team will use during the project.]

*Example:*

*Schedules for this project will be managed at the individual task level, where each task reflects a task identified at the fourth level of the approved Work Breakdown Structure (WBS). Task durations will be measured in terms of hours and/or days, as appropriate. Critical path method will be used to control and monitor the schedules.*

*Schedule variances of less than 10% in the Schedule Performance Index (SPI) will maintain a status of normal, so those values will show a green indicator in the project status reports. Schedule variances of +/- 10% in the SPI will change the status of the cost to cautionary, so, those values will be changed to a yellow indicator in the project status reports. Schedule variances of +/- 20% in the SPI will change the status of the cost to an alert stage, so those values will be changed to a red indicator in the project status reports. The red indicator will require corrective action from the Project Manager to bring the SPI below the alert level. Corrective actions will require a project change request and be must approved by the Project Sponsor before they are included in the project’s scope.*

## Schedule Development

[Describe the scheduling approach and tool(s) used to develop the project schedule. The schedule development process includes a number of sub-processes. These sub-processes are used to plan the details of schedule task identification, task durations, sequences, inter-relationships (dependencies), work effort estimates, and resource assignments. Summarize the schedule development approach that the project team will used to build and baseline the project schedule.]

*Example:*

*The project schedule will be developed from the approved work breakdown structure (WBS) constructed as part of the Scope Management planning effort. The project manager and project scheduler will identify task durations associated with each task. They will also conduct a dependency analysis to determine the order in which the work must occur. Tasks, their associated activities, and durations will be entered into the project schedule software tool with both predecessor and successor tasks assigned at the activity level. Task sizing will be within the project’s established work package limits for both effort and duration. Named resources will be assigned to each task. If named resources are not known, then resource groups will be assigned to the task. Once completed, the Project Manager will examine the schedule to ensure it is technically correct and reasonable. After the schedule is approved, the project will be baselined and put under configuration control.*

## Units of Measure and Level of Accuracy

[Define the units of measure used for each project resource. Examples include staff hours and staff days. Describe the acceptable ranges used to determine the realistic activity duration estimates. Include any existing contingencies.]

*Example:*

*Human resource measurements are hours, days, weeks, and months. No other fractions or portions of identified measures are used for the project. For measuring the project resource’s activity durations, the level of accuracy for the project is considered plus or minus 10%.*

## Schedule Maintenance

[Describe the process used to update project status and record progress in the schedule.]

*Example:*

*Project team members report their work time and progress weekly using the project schedule software tool. Team members are trained on how to record time in the schedule software tool. The Project Manager and Project Scheduler review the project status and report progress weekly in the project schedule software application.*

## Project Schedule Metrics

[Describe the schedule metrics that will be used for the project. The Project Management Book of Knowledge (PMBOK) Guide focuses on Earned Value Management (EVM) for measuring and monitoring schedule. Project Managers should clearly understand EVM before deciding to use this method for managing the project schedule. A more simplified approach may be sufficient depending to the project size and complexity. Regardless of the method chosen, basic measurements such as Schedule Variance (SV) and Schedule Performance Index (SPI) should be tracked and reported. These are the most typical performance measures and should be captured and tracked.]

*Example:*

*The project will use Schedule Variance and Schedule Performance Index (SPI) as the basis for measuring schedule performance. In addition, the project will track two additional data points in order to improve estimation accuracy.*

* ***Percentage of Tasks on Time*** *– Measures the percentage of tasks that finish on or ahead of their planned finish date.*
* ***Percentage of Tasks on Budget (Effort)*** *– Measures the percentage of tasks that are completed within their allocated time budget.*

## Control Thresholds

[Specify and describe the agreed-upon variance threshold that is allowed in the project schedule before some action is necessary. Thresholds are typically expressed in percentages against the baseline.]

*Example:*

*This section describes the schedule variance thresholds agreed upon for the project. If a team member feels a schedule change is necessary, the Project Manager and the team meet to review and evaluate the change. The project team determines which tasks are affected, calculates the variance, and generates a list of possible alternatives for consideration. If, after the evaluation is complete, the Project Manager determines that any change exceeds the established thresholds or boundaries, a change request is submitted to the Change Control Board (CCB).*

*A change request is necessary if either of the following two conditions is true:*

* *The proposed change is estimated to increase or reduce the work package duration by 10% or more when compared against the baseline.*
* *The proposed change is estimated to increase or reduce the overall project duration by 10% or more when compared against the baseline.*

*Once the schedule change request is reviewed and approved, the Project Manager and Project Scheduler record the change request result, store the documents in the project repository, modify the schedule according to the approved change, and communicate the change and impacts to the project team and Stakeholders.*

*If the project team feels a schedule re-baseline is necessary, a separate change request is submitted for consideration and approval.*

## Reporting Formats

[Define and describe how schedule reporting will be done during the project. Describe the report types and reporting intervals, responsible parties, and content. A sample table below shows examples of reporting. However, there are many other project reports to consider for project use including trend, metric and oversight reports. This section should contain a complete list of expected and required reports. Refer also to the project’s Communications Management Plan for Stakeholder information needs.]

*The following scheduled reports will be available at the specified time intervals during the project:*

| Report | Frequency | Author | Reporting Responsibility |
| --- | --- | --- | --- |
| *Resource Task Lists and Work Packages* | *Weekly* | *Project Scheduler* | *Generate individual resource task lists and work packages from the scheduling tool and make them available online to project team members.* |
| *Project Schedule Report* | *Monthly* | *Project Scheduler* | *Generate the schedule progress report for use in the project status meeting.* |
| *Project Master Schedule (Gantt chart)* | *Monthly* | *Project Scheduler* | *Generate the updated schedule Gantt chart for use in the project status meeting.* |
| *Sponsor Project Report* | *Monthly* | *Project Manager* | *Generate the Sponsor project status report for presentation to the Project Sponsor.* |

## Performance Measurement Rules

[Define and describe the performance measurement rules that are used for the project. Examples include rules establishing percent complete, control accounts, and schedule performance measures such as Schedule Variance (SV) and the Schedule Performance Index (SPI).]

*Example:*

*Performance measure calculations are made using the project schedule software (such as Microsoft Project Professional) for the project.*

## Schedule Activity and Progress Update

[Describe how the project team will provide activity and progress updates. Define how to address discrepancies between planned versus actual hours for project activities.]

*Example:*

*Activity and progress updates are input by project team members on a monthly basis into the online project-scheduling tool identified for the project. The information is reviewed by the functional manager to confirm the accuracy of the information provided. The Project Scheduler verifies updates are complete for the month and reviews the results with the Project Manager. Any input errors are provided to the functional managers for correction by the project team member.*

## Schedule Monitoring

[Describe how the schedule is monitored and compared against the schedule baseline. Describe any analysis processes used and how schedule-related concerns, issues and risks are addressed.]

*Example:*

*Project team members will report task progress on monthly basis to the Project Manager. The Project Scheduler will update the project schedule with monthly actuals of team member effort and inform the Project Manager of the overall condition of the project schedule in terms of variance from planned. The Project Scheduler will also report on positive or negative trends regarding schedule performance*.

## Schedule Control

[Describe how the schedule will be managed and controlled based on the progress information provided in the reporting period, perceived project risks, and open or ongoing issues. Describe the techniques that will be used to maintain schedule control. Examples of techniques include critical path method, float and free-float, resource histogram, resource leveling, and Monte Carlo Simulation. Examples of potential methods and their definitions are shown in the following table.]

| **Technique** | **Definition**  |
| --- | --- |
| *Performance Reviews* | *Performance reviews measure, compare, and analyze schedule performance, such as actual start and finish dates, percent complete, and remaining duration for the work in progress.* |
| *Critical Path Method* | *Critical Path is used to predict project duration by analyzing the sequence of activities (network path) that has the least amount of scheduling flexibility. Earlier dates are calculated by a forward pass using a specified start date. Later dates are calculated by a backward pass starting from a specified completion date.* |
| *Monte Carlo Simulation* | *Monte Carlo Simulation is a technique used to compute and quantify the total project cost and/or project schedule a number of times. This is done with input values, selected at random through careful use of probability distributions or potential costs and/or potential durations. The purpose of the Monte Carlo analysis is to calculate a defined distribution scenario of possible total costs associated with the project as well as a range of possible completion dates for the project.* |
| *Resource Histogram* | *A Resource Histogram is vertical bar chart used to show resource consumption and availability by time period. Also called a resource-loading chart.* |
| *Variance Analysis* | *Variance Analysis is used to determine the causes of a variance, such as the difference between an expected result and an actual result.* |
| *Adjust Leads and Lags* | ***Lead*** *-- A modification of a logical relationship that allows an acceleration of the successor activity. For example, when a task has a finish-to-start dependency with a 10-day lead, the successor activity can start as much as 10 days before the predecessor activity has finished.****Lag*** *-- A modification of a logical relationship that directs a delay in the successor activity. For example, when a task has a finish-to-start dependency with a 10-day lag, the successor activity can’t start until 10 days after the predecessor activity has finished.**Adjusting leads and lags is used to find ways to bring lagging project activities into alignment with the plan.* |

*Example:*

*The Critical Path Method will be used for schedule control. The Project Manager will review the critical path:*

* *Monthly*
* *When a new baseline is required*
* *When entering a new project phase*
* *When mitigating schedule-related risks*
* *As needed to ensure the critical path is maintained*