

Project Integration Management

Process Groups						
	Initiating	Planning	Executing	Monitoring & Controlling		Closing
Process	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work	4.4 Monitor and Control Project Work	4.5 Perform Integrated Change Control	4.6 Close Project or Phase
Inputs	Project Statement Of Work	Project Charter	Project Management Plan	Project Management Plan	Project Management Plan	Project Management Plan
	Business Case	Enterprise Environmental Factors	Approved Change Requests	Enterprise Environmental Factors	Change Requests	Accepted Deliverables
	Enterprise Environmental Factors	Organizational Process Assets	Enterprise Environmental Factors	Organizational Process Assets	Enterprise Environmental Factors	Organizational Process Assets
	Organizational Process Assets	Outputs from other Processes	Organizational Process Assets	Schedule Forecasts	Organizational Process Assets	
	Agreement			Cost Forecasts	Work Performance Reports	
				Validated Changes		
				Work Performance Information		
Tools & Techniques	Expert Judgment	Expert Judgment	Expert Judgment	Expert Judgment	Expert Judgment	Expert Judgment
	Facilitation Techniques	Facilitation Techniques	Project Management Information System	Analytical Techniques	Change Control Tools	Analytical Techniques
			Meetings	Project Management information System	Meetings	Meetings
				Meetings	-	-
Outputs	Project Charter	Project Management Plan	Deliverables	Change requests	Project Management Plan Updates	Final Product, Service, or Result Transition
			Change requests	Work Performance Reports	Project Documents Updates	Organizational Process Assets Updates
			Project Management Plan Updates	Project Management Plan Updates	Approved Change Requests	
			Project Document Updates	Project Document Updates	Change Log	
			Work Performance Data			

Project Scope Management

Process Groups									
	Initiating	Planning				Executing	Monitoring & Controlling		Closing
Process		5.1 Plan Scope Management	5.2 Collect Requirements	5.3 Define Scope	5.4 Create WBS		5.5 Validate Scope	5.6 Control Scope	
Inputs		Project Management Plan	Project Charter	Project Charter	Project Scope Statement		Project Management Plan	Project Management Plan	
		Project Charter	Stakeholder Register	Requirements Documentation	Requirements Documentation		Requirements Documentation	Requirements Documentation	
		Enterprise Environmental Factors	Scope Management Plan	Organizational Process Assets	Organizational Process Assets		Requirements Traceability Matrix	Requirements Traceability Matrix	
		Organizational Process Assets	Requirements Management Plan	Scope Management Plan	Scope Management Plan		Verified Deliverables	Organizational Process Assets	
			Stakeholder Management Plan		Enterprise Environmental Factors		Work Performance Data	Work Performance Data	
Tools & Techniques		Expert Judgment	Interviews	Expert Judgment	Decomposition		Inspection	Variance Analysis	
		Meetings	Focus Groups	Product Analysis	Expert Judgment		Group Decision-Making Techniques		
			Facilitated Workshops	Facilitated Workshops					
			Group Creativity Techniques	Alternatives Generation					
			Group Decision-making Techniques						
			Questionnaires and Surveys						
			Observations						
			Prototypes						
			Benchmarking						
			Context Diagrams						
			Document Analysis						
Outputs		Scope Management Plan	Requirements Documentation	Project Scope Statement	Scope Baseline		Accepted Deliverables	Change Requests	
		Requirements Management Plan	Requirements Traceability Matrix	Project Documents Updates	Project Documents Updates		Change Requests	Project Management Plan Updates	
							Project Documents Updates	Project Documents Updates	
							Work Performance Information	Organizational Process Assets Updates	
								Work Performance Information	

Project Time Management

Process Groups										
	Initiating	Planning						Executing	Monitoring & Controlling	Closing
Process		6.1 Plan Schedule Management	6.2 Define Activities	6.3 Sequence Activities	6.4 Estimate Activity Resources	6.5 Estimate Activity Durations	6.6 Develop Schedule		6.7 Control Schedule	
Inputs		Project Management Plan	Scope Baseline	Activity List	Activity List	Activity List	Activity List		Project Management Plan	
		Project Charter	Enterprise Environmental Factors	Activity Attributes	Activity Attributes	Activity Attributes	Activity Attributes		Project Schedule	
		Enterprise Environmental Factors	Organizational Process Assets	Milestone List	Resource Calendars	Activity Resource Requirements	Project Schedule Network Diagrams		Organizational Process Assets	
		Organizational Process Assets	Schedule Management Plan	Project Scope Statement	Enterprise Environmental Factors	Resource Calendars	Activity Resource Requirements		Work Performance Data	
				Organizational Process Assets	Organizational Process Assets	Project Scope Statement	Resource Calendars		Project Calendars	
				Enterprise Environmental Factors	Schedule Management Plan	Enterprise Environmental Factors	Activity Duration Estimates		Schedule Data	
				Schedule Management Plan	Risk Register	Organization Process Assets	Project Scope Statement			
					Activity Cost Estimates	Schedule Management Plan	Enterprise Environmental Factors			
						Risk Register	Organizational Process Assets			
						Resource Breakdown Structure	Schedule Management Plan			
							Risk Register			
							Project Staff Assignments			
						Resource Breakdown Structure				

Project Time Management (Cont'd)

Process Groups										
	Initiating	Planning						Executing	Monitoring & Controlling	Closing
Process		6.1 Plan Schedule Management	6.2 Define Activities	6.3 Sequence Activities	6.4 Estimate Activity Resources	6.5 Estimate Activity Durations	6.6 Develop Schedule		6.7 Control Schedule	
Tools & Techniques		Expert Judgment	Decomposition	Precedence Diagramming method (PDM)	Expert Judgment	Expert Judgment	Schedule Network Analysis		Performance Reviews	
		Analytical Techniques	Rolling Wave Planning	Dependency Determination	Alternative Analysis	Analogous Estimating	Critical Path Method		Project Management Software	
		Meetings	Expert Judgment	Leads and Lags	Published Estimating Data	Para-Metric Estimating	Critical Chain Method		Schedule Compression	
					Bottom-up Estimating	Three-Point Estimating	Schedule Compression		Scheduling Tool	
					Project Management Software	Reserve Analysis	Scheduling Tool		Resource Optimization Techniques	
						Group Decision-making Techniques	Resource Optimization Techniques		Modeling Techniques	
							Modeling Techniques		Leads and Lags	
							Leads and Lags			
Outputs		Schedule Management Plan	Activity List	Project Schedule Network Diagrams	Activity Resource Requirements	Activity Duration Estimates	Schedule Baseline		Organizational Process Assets Updates	
			Activity Attributes	Project Documents Updates	Resource Breakdown Structure	Project Documents Updates	Project Schedule		Change Requests	
			Milestone List		Project Document Updates		Schedule Data		Project Management Plan Updates	
							Project Documents Updates		Project Documents Updates	
							Project Calendars		Work Performance Information	
							Project Management Plan Updates		Schedule Forecasts	

Project Cost Management

Process Groups							
	Initiating	Planning			Executing	Monitoring & Controlling	Closing
Process		7.1 Plan Cost Management	7.2 Estimate Costs	7.3 Determine Budget		7.4 Control Costs	
Inputs		Project Management Plan	Scope Baseline	Basis of Estimates		Project Management Plan	
		Project Charter	Project Schedule	Scope Baseline			
		Enterprise Environmental Factors	Risk Register	Activity cost Estimates			
		Organizational Process Assets	Enterprise Environmental Factors	Project Schedule			
			Organizational Process Assets	Resource Calendars			
			Cost Management Plan	Organizational Process Assets			
			Human Resource Management Plan	Cost Management Plan		Project Funding Requirements	
				Risk Register		Organizational Process Assets	
				Agreements		Work Performance Data	
			Contracts		Work Performance Information		
Tools & Techniques		Expert Judgment	Expert Judgment	Cost aggregation		Earned value Management	
		Analytical Techniques	Analogous estimating	Reserve Analysis		Forecasting	
		Meetings	Parametric Estimating	Expert Judgment		To-complete Performance Index (TCPI)	
			Bottom-up Estimating	Historical Relationships		Performance Reviews	
			Three-point Estimating			Performance Management software	
			Reserve Analysis			Reserve Analysis	
			Cost of Quality			Variance Analysis	
			Vendor Bid Analysis				
			Project Management Software				
			Group Decision-making Techniques				
		Project Management estimating Software					
Outputs		Cost Management Plan	Activity Cost Estimates	Funding Limit Reconciliation		Organizational Process Assets Updates	
			Basis of Estimates	Project Funding Requirements		Change Requests	
			Project Documents Updates	Project Documents Updates		Project Management Plan Updates	
				Cost Baseline		Project Documents Updates	
				Cost Performance Baseline		Work Performance Information	
						Cost Forecasts	
						Work Performance Measurements	
					Budget Forecasts		

Project Quality Management

Process Groups					
Process	Initiating	Planning	Executing	Monitoring & Controlling	Closing
Process		8.1 Plan Quality Management	8.2 Perform Quality Assurance	8.3 Control Quality	
Inputs		Stakeholder Register	Quality Metrics	Project Management Plan	
		Risk Register	Quality Control Measurements	Quality Metrics	
		Enterprise Environmental Factors	Quality Management Plan	Quality Check Lists	
		Organizational Process Assets	Process Improvement Plan	Approved Change requests	
		Project Management Plan	Project Documents	Deliverables	
		Requirements Documentation		Organizational Process Assets	
				Work Performance Data	
Tools & Techniques		Cost-benefit Analysis	Quality Audits	Statistical Sampling	
		Cost of Quality	Process Analysis	Inspection	
		Benchmarking	Quality Management and Control Tools	Approved Change Requests Review	
		Design of Experiments		Seven Basic Quality Tools	
		Statistical Sampling			
		Meetings			
		Additional Quality Planning Tools			
Outputs		Quality Management Plan	Change Requests	Quality Control Measurements	
		Process Improvement Plan	Project Management Plan Updates	Validated Changes	
		Quality Metrics	Project Documents Updates	Organizational Process Assets Updates	
		Quality Check Lists	Organizational Process Assets Updates	Change Requests	
		Project Documents Updates		Project Management Plan Updates	
				Project Documents Updates	
				Verified Deliverables	
			Work Performance Information		

Project Human Resource Management

Process Groups							
	Initiating	Planning	Executing			Monitoring & Controlling	Closing
Process		9.1 Plan Human Resource Management	9.2 Acquire Project Team	9.3 Develop Project Team	9.4 Manage Project Team		
Inputs		Activity Resource Requirements	Enterprise Environmental Factors	Project Staff Assignments	Project Staff Assignments		
		Enterprise Environmental Factors	Organizational Process Assets	Resource Calendars	Team Performance Assessments		
		Organizational Process Assets	Human Resource Management Plan	Human Resource Management Plan	Organizational Process Assets		
		Project Management Plan			Human Resource Management Plan		
					Issue Log		
					Work Performance Reports		
Tools & Techniques		Organization Charts and Position Descriptions	Pre-Assignment	Interpersonal Skills	Observation and Conversation		
		Networking	Negotiation	Training	Project Performance Appraisals		
		Organization Theory	Acquisition	Team-Building Activities	Conflict Management		
		Expert Judgment	Virtual Teams	Ground Rules	Interpersonal Skills		
		Meetings	Multi-Criteria Decision Analysis	Colocation			
				Recognition and Rewards			
				Personnel Assessment Tools			
Outputs		Human Resource Management Plan	Project Staff Assignments	Team Performance Assessments	Change Requests		
			Resource Calendars	Enterprise Environmental Factors Updates	Enterprise Environmental Factors Updates		
			Project Management Plan Updates		Organizational Process Assets Updates		
					Project Management Plan Updates		
					Project Documents Updates		

Project Communications Management

Process Groups						
	Initiating	Planning	Executing		Monitoring & Controlling	Closing
Process		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Control Communications		
Inputs		Stakeholder Register	Organizational Process Assets	Project Management Plan		
		Enterprise Environmental Factors	Communications Management Plan	Organizational Process Assets		
		Organizational Process Assets	Work Performance Reports	Project Communications		
		Project Management Plan	Enterprise Environmental Factors	Issue log		
				Work Performance Data		
Tools & Techniques		Communications Requirements Analysis	Communication Methods	Information Management Systems		
		Communication Technology	Communication Technology	Expert Judgment		
		Communication Models	Communication Models	Meetings		
		Communication Methods	Information Management Systems			
		Meetings	Performance Reporting			
Outputs		Communications Management Plan	Organizational Process Assets Updates	Change Requests		
		Project Documents Updates	Project Communications	Organizational Process Assets Updates		
			Project Management Plan Updates	Work Performance Information		
			Project Documents Updates	Project Management Plan Updates		
				Project Documents Updates		

Project Risk Management

Process Groups								
	Initiating	Planning	Executing				Monitoring & Controlling	Closing
Process		11.1 Plan Risk Management	11.2 Identify Risks	11.3 Perform Qualitative Risk Analysis	11.4 Perform Quantitative Risk Analysis	11.5 Plan Risk Response	11.6 Control Risks	
Inputs		Enterprise Environmental Factors	Risk Management Plan	Risk Management Plan	Risk Management Plan	Risk Register	Project Management Plan	
		Organizational Process Assets	Cost Management Plan	Risk Register	Cost Management Plan	Risk Management Plan	Risk Register	
		Project Management Plan	Schedule Management Plan	Organizational Process Assets	Schedule Management Plan		Work Performance Data	
		Project Charter	Quality Management Plan	Scope Baseline	Risk Register		Work Performance Reports	
		Stakeholder Register	Scope Baseline	Enterprise Environmental Factors	Organizational Process Assets			
			Activity Cost Estimates		Enterprise Environmental Factors			
			Activity Duration Estimates					
			Stakeholder Register					
			Project Documents					
			Enterprise Environmental Factors					
			Organizational Process Assets					
			Human Resource Management Plan					
Tools & Techniques		Analytical Techniques	Documentation Reviews	Risk Probability and Impact Assessment	Data Gathering and Representation Techniques	Strategies for Negative Risks or Threats	Risk Reassessment	
			Information gathering Techniques	Probability and Impact Matrix	Quantitative Risk Analysis and Modeling Techniques	Strategies for Positive Risks or Opportunities	Risk Audits	
			Checklist Analysis	Risk Data Quality Assessment	Expert Judgment	Contingent Response Strategies	Variance and Trend Analysis	
			Assumptions Analysis	Risk Categorization		Expert Judgment	Technical Performance Measurement	
			Diagramming Techniques	Risk Urgency Assessment			Reserve Analysis	
		Expert Judgment	SWOT Analysis	Expert Judgment				
		Meetings	Expert Judgment				Meetings	

Project Risk Management (Cont'd)

Process Groups								
	Initiating	Planning	Executing				Monitoring & Controlling	Closing
Process		11.1 Plan Risk Management	11.2 Identify Risks	11.3 Perform Qualitative Risk Analysis	11.4 Perform Quantitative Risk Analysis	11.5 Plan Risk Response	11.6 Control Risks	
Outputs		Risk Management Plan	Risk Register	Project Documents Updates	Project Documents Updates	Project Management Plan Updates	Change Requests	
						Project Documents Updates	Organizational Process Assets Updates	
							Project Management Plan Updates	
							Project Documents Updates	
							Work Performance Information	

Project Procurement Management

Process Groups					
Process	Initiating	Planning	Executing	Monitoring & Controlling	Closing
Process		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	12.4 Close Procurements
Inputs		Requirements Documentation	Procurement Management Plan	Project Management Plan	Project Management Plan
		Risk Register	Procurement Documents	Procurement Documents	Procurement Documents
		Activity Resource Requirements	Source Selection Criteria	Approved Change Requests	
		Project Schedule	Seller Proposals	Agreements	
		Activity Cost Estimates	Project Documents	Work Performance Reports	
		Enterprise Environmental Factors	Make-or-buy Decisions	Work Performance Data	
		Organizational Process Assets	Organizational Process Assets		
		Project Management Plan	Procurement Statement of work		
		Stakeholder Register			
Tools & Techniques		Make-or-Buy Analysis	Bidder Conference	Contract Change Control System	Procurement Audits
		Expert Judgment	Proposal evaluation Techniques	Procurement Performance Reviews	Records Management System
		Market Research	Independent Estimates	Inspections and Audits	Procurement Negotiations
		Meetings	Expert Judgment	Performance Reporting	
			Advertising	Payment Systems	
			Procurement Negotiations	Claims Administration	
			Analytical Techniques	Records Management System	
Outputs		Procurement Management Plan	Selected Sellers	Change Requests	Closed Procurements
		Procurement Statement of Work	Resource Calendars	Project Management Plan Updates	Organizational Process Assets Updates
		Procurement Documents	Change Requests	Organizational Process Assets Updates	
		Source Selection Criteria	Project Management Plan Updates	Work Performance Information	
		Make-or-Buy Decisions	Project Documents Updates	Project Documents Updates	
		Change Requests	Agreements		
		Project Documents Updates			

Project Stakeholder Management

Process Groups					
	Initiating	Planning	Executing	Monitoring & Controlling	Closing
Process	13.1 Identify Stakeholders	13.2 Plan Stakeholder Management	13.3 Manage Stakeholder Engagement	13.4 Control Stakeholders Engagement	
Inputs	Project Charter	Project Management Plan	Change Log	Project Management Plan	
	Procurement Documents	Stakeholder Register	Organizational Process Assets	Issue Log	
	Enterprise Environmental Factors	Enterprise Environmental Factors	Stakeholder Management Plan	Work Performance Data	
	Organizational Process Assets	Organizational Process Assets	Communications Management Plan	Project Documents	
Tools & Techniques	Stakeholder Analysis	Expert Judgment	Communication Methods	Information Management Systems	
	Expert Judgment	Meetings	Interpersonal Skills	Expert Judgment	
	Meetings	Analytical Techniques	Management Skills	Meetings	
Outputs	Stakeholder Register	Stakeholder Management Plan	Change Requests	Work Performance Information	
		Project Documents Updates	Project Management Plan Updates	Change Requests	
			Project Documents Updates	Project Management Plan Updates	
			Organizational Process Assets Updates	Project Documents Updates	
			Issue log	Organizational Process Assets Updates	