PRM - IT
IBM Process Reference Model for IT

Sequencing the DNA of IT Management

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IBM Process Reference Model for IT (PRM-IT Version 3.0)

Preface

The IBM Process Reference Model for Information Technology (PRM-IT) is a generic representation of the processes involved across the complete IT management domain. It contains a foundational examination of the IT process topic. It is for this reason the graphical image of the DNA double helix over the basic building block of a cell is used.

About this book

As a reference manual, *IDEFØ Node Tree* shows the ordered list of process categories, processes, and activities.

Each reference manual begins with a summarization of the category, and then further considers each process in turn and the activities within each process.

Details are provided for:

- The definition of each activity
- Each control, input and output
- The sources and destinations of each control, input, and output (thereby showing the model linkages)

The full IDEF0 diagram for each category and each process is included.

The final page is a breakdown of the PRM-IT node tree for this category.

The PRM-IT Reference Library books

The PRM-IT Reference Library consists of thirteen books. The first book is the *General Information Manual*, it is a brief examination of the subject of IT processes, and provides a tour of the model.

The nine reference manuals are A0 through A8. The *A0 Manage IT* book examines the context of the processes for IT, exploring the key external agents — stakeholders and their interactions with IT. The reference manuals A1 through A8 provide the complete description of all aspects of the process categories.

The reference manual *IDEFØ Diagrams* presents the full model in IDEFØ notation, and *IDEFØ Node Tree* shows the ordered list of process categories, processes, and activities.

The final book, the *Glossary*, contains the definition of every process interface object for the model and provides references to where the objects are used.

PRM-IT Reference Library	
■ General Information	■ A6 Operations
■ A0 Manage IT	■ A7 Resilience
■ A1 Governance and Management System	■ A8 Administration
■ A2 Customer Relationships	■ IDEFØ Node Tree
■ A3 Direction	■ IDEFØ Diagrams
■ A4 Realization	■ PRM-IT Glossary
■ A5 Transition	

Intended audience

An understanding of the full range of the processes relevant to IT in any business is of value to those within the IT function responsible for the specification, creation, and delivery of IT services (whether at the CIO or IT executive level), and who consider the direction and overall management of IT. Or, individuals who work within any of its competencies, needing to interface with other parts of the IT value chain or value net.

Equally, the stakeholders in the business of this IT capability will benefit from greater insight into how IT serves them. This insight will enable them to better influence IT decisions and activities, to their ultimate benefit.

Next steps

PRM-IT is a powerful management tool for purposes of investigating and identifying areas for improvement. PRM-IT also provides a proven starting-point for the design and implementation of new and upgraded IT management capabilities.

IBM IT consultants, architects, and specialists in global services who, working from this common base, are equipped with a full range of methods, techniques, and tools to assist its customers achieve their purposes.

IDEFØ Node Tree

A–1 Governance and Management System

A11 IT Governance and Management System Framework
A12 IT Governance and Management System Capabilities
A13 IT Governance and Management System Operation
A14 IT Governance and Management System Evaluation

A–2 Customer Relationships

A21 Stakeholder Requirements Management
A22 Service Marketing and Sales
A23 Service Catalog Management
A24 Service Level Management
A25 Demand Management
A26 IT Customer Transformation Management
A27 Customer Satisfaction Management

A–3 Direction

A31 IT Strategy
A32 IT Research and Innovation
A33 Architecture Management
A34 Risk Management
A35 Product Management
A36 Portfolio Management
A37 Program and Project Management

A–4 Realization

A41 Solution Requirements
A42 Solution Analysis and Design
A43 Solution Development and Integration
A44 Solution Test
A45 Solution Acceptance

A–5 Transition

A51 Change Management
A52 Release Management
A53 Deployment Management
A54 Configuration Management
A55 Asset Management

A–6 Operations

A61 Request Fulfillment
A62 Service Execution
A63 Data Management
A64 Event Management
A65 Incident Management
A66 Problem Management
A67 Identify and Access Management

A–7 Resilience

A71 Compliance Management
A72 Security Management
A73 Availability Management
A74 Capacity Management
A75 Facilities Management
A76 IT Service Continuity Management

A–8 Administration

A81 Financial Management
A82 Supplier Management
A83 Service Pricing and Contract Administration
A84 Workforce Management
A85 Knowledge Management

A0 – Manage IT

A1	Governance and Management System
A2	Customer Relationships
A3	Direction
A4	Realization
A5	Transition
A6	Operations
A7	Resilience
A8	Administration

A1 – Governance and Management System

A1 – GOVERNANCE AND MANAGEMENT SYSTEM	
A11	**IT Governance and Management System Framework**
A111	Define IT Governance Framework
A112	Define IT Management Goals
A113	Establish IT Management Policies
A114	Establish IT Management Practices
A12	**IT Governance and Management System Capabilities**
A121	Establish IT Governance Capabilities
A122	Establish IT Process Capabilities
A123	Establish IT Organizational Capabilities
A124	Establish IT Management Information Capabilities
A125	Establish IT Operational Environment Capabilities
A126	Establish IT Measurement and Control Capabilities
A13	**IT Governance and Management System Operations**
A131	Produce IT Measurements
A132	Operate IT Governance and Management System Controls
A133	Monitor, Analyze and Report IT Outcomes
A14	**IT Governance and Management System Evaluation**
A141	Collate IT Management System Outcomes
A142	Analyze IT Governance and Management System Performance
A143	Audit IT Governance and Management
A144	Communicate IT Governance and Management System Performance

A2 – Customer Relationships

A2 – CUSTOMER RELATIONSHIPS	
A21	Stakeholder Requirements Management
A211	Establish Stakeholder Requirements Management Framework
A212	Capture Stakeholder Needs
A213	Transform Needs Into Stakeholder Requirements
A214	Monitor and Report Stakeholder Needs and Requirements
A215	Evaluate Stakeholder Requirements Management Performance
A22	**Service Marketing and Sales**
A221	Establish Service Marketing and Sales Framework
A222	Analyze Market Wants and Needs
A223	Create Marketing Plan
A224	Execute Marketing Plan
A225	Manage Opportunities and Forecast Sales
A226	Consult and Propose Services Solutions
A227	Negotiate and Close Services Opportunity
A228	Analyze and Report Marketing and Sales Results
A229	Evaluate Service Marketing and Sales Performance
A23	**Service Catalog Management**
A231	Establish Service Catalog Management Framework
A232	Define Service Package Catalog Requirements
A233	Build and Maintain Service Catalog Content
A234	Create and Maintain Service Catalog Views
A235	Publish Service Catalog
A236	Monitor, Analyze and Report Service Catalog
A237	Evaluate Service Catalog Management Performance
A24	**Service Level Management**
A241	Establish Service Level Management Framework
A242	Develop Service Level Relationships
A243	Create and Maintain Service Level Agreements
A244	Monitor and Report Service Level Achievements

A2 – CUSTOMER RELATIONSHIPS	
A245	Conduct Service Review
A246	Formulate Service Improvement Plan
A247	Evaluate Service Level Management Performance
A25	**Demand Management**
A251	Establish Demand Management Framework
A252	Value and Classify Business Demands
A253	Consolidate Business Demand Patterns and Forecasts
A254	Forecast Service Demand
A255	Identify and Plan Demand Management Initiatives
A256	Assess and Report Demand Management Outcomes
A26	**IT Customer Transformation Management**
A261	Establish IT Customer Transformation Management Framework
A262	Understand IT Customer Context
A263	Identify IT Customer Transformation Opportunities
A264	Develop IT Customer Transformation Proposal
A265	Enable and Promote IT Customer Capability Adoption
A266	Optimize IT Customer Benefit Realization
A267	Evaluate IT Customer Transformation Management Performance
A27	**Customer Satisfaction Management**
A271	Establish Customer Satisfaction Management Framework
A272	Capture Customer Satisfaction Data
A273	Analyze Customer Satisfaction
A274	Manage Customer Satisfaction Issue Resolution
A275	Assess Customer Satisfaction Patterns
A276	Communicate Customer Satisfaction Management Results
A277	Evaluate Customer Satisfaction Management Performance

A3 – IT Direction

A3 – IT DIRECTION	
A31	**IT Strategy**
A311	Establish IT Strategy Process Framework
A312	Understand Business Strategy
A313	Determine IT Strategic Potential
A314	Develop IT Strategy Initiatives
A315	Consolidate and Communicate IT Strategy
A316	Monitor and Assess IT Strategy Effectiveness
A317	Evaluate IT Strategy Process Performance
A32	**IT Research and Innovation**
A321	Establish IT Research and Innovating Framework
A322	Identify IT Research and Innovation Candidates
A323	Qualify Candidates and Define IT Research and Innovation Projects
A324	Perform IT Research and Innovation Project
A325	Promote IT Research and Innovation Results
A326	Evaluate IT Research and Innovation Performance
A33	**Architecture Management**
A331	Establish Architecture Management Framework
A332	Review Overall Environment and Architecture
A333	Create and Maintain Architecture Models
A334	Define and Maintain Architecture Baselines and Roadmaps
A335	Promote Architecture Transition Initiatives
A336	Govern Architecture Usage
A337	Evaluate Architecture Management Performance

A3 – IT DIRECTION	
A34	**Risk Management**
A341	Establish Risk Management Framework
A342	Identify Threats, Vulnerabilities and Risks
A343	Assess Risk
A344	Define Risk Mitigation Plans and Countermeasures
A345	Enact and Operate Risk Countermeasures
A346	Assess Risk Mitigation Results
A347	Evaluate Risk Management Performance
A35	**Product Management**
A351	Establish Product Management Framework
A352	Formulate Product Concept
A353	Plan and Control Product Lifecycle
A354	Inititate and Oversee Product Realization
A355	Guide Product Transition and Operation
A356	Monitor and Assess Product Performance
A357	Evaluate Product Management Performance
A36	**IT Portfolio Management**
A361	Establish IT Portfolio Management Framework
A362	Inventory IT Projects and Services
A363	Create and Maintain IT Portfolio Categories
A364	Assess and Prioritize IT Portfolio
A365	Make IT Portfolio Decisions and Commitments
A366	Conduct IT Portfolio Review
A367	Communicate IT Business Value and IT Portfolio Performance
A368	Evaluate Portfolio Management Performance
A37	**Program and Project Management**
A371	Establish Program and Project Management Framework
A372	Manage Program
A373	Define and Initiate Project
A374	Plan Project
A375	Track and Report Project

A3 – IT DIRECTION	
A376	Control Project
A377	Close Project
A378	Evaluate Program and Project Management Performance

A4 – Realization

A4 – REALIZATION	
A41	**Solution Requirements**
A411	Establish Solution Requirements Framework
A412	Refine and Verify Business Context
A413	Document and Analyze Solution Requirements
A414	Validate Solution Requirements with Stakeholders
A415	Manage Solution Requirements Baseline
A416	Evaluate Solution Requirements Performance
A42	**Solution Analysis and Design**
A421	Establish Solution Analysis and Design Framework
A422	Create Conceptual Solution Design
A423	Identify and Select Solution Components
A424	Create Detailed Solution Design
A425	Validate Solution Design with Stakeholders
A426	Evaluate Solution Analysis and Design Performance
A43	**Solution Development and Integration**
A431	Establish Solution Development and Integration Framework
A432	Define Solution Development and Integration Plan
A433	Prepare Solution Development and Integration Environment
A434	Acquire or Create Solution Components
A435	Integrate Solution Components
A436	Refine and Tune Integrated Solution
A437	Verify Integrated Solution
A438	Evaluate Solution Development and Integration Performance

A4 – REALIZATION	
A44	**Solution Test**
A441	Establish Solution Test Framework
A442	Develop Solution Test Strategy and Plans
A443	Prepare and Mange Solution Test Environment
A444	Perform Solution Test
A445	Analyze and Report Solution Test Results
A446	Evaluate Solution Test Performance
A45	**Solution Acceptance**
A451	Establish Solution Acceptance Framework
A452	Create Solution Acceptance Plan
A453	Define Solution Acceptance Criteria
A454	Perform Solution Acceptance Review
A455	Certify Solution Acceptance
A456	Package Certified Solution
A457	Evaluate Solution Acceptance Performance

A5 – Transition

A5 – TRANSITION	
A51	**Change Management**
A511	Establish Change Management Framework
A512	Create and Record Change Request
A513	Accept and Categorize Change
A514	Assess Change
A515	Authorize and Schedule Change
A516	Coordinate Change Implementation
A517	Review and Close Change
A518	Monitor and Report Change Management
A519	Evaluate Change Management Performance
A52	**Release Management**
A521	Establish Release Management Framework
A522	Plan Release Strategy
A523	Design and Build Release
A524	Test and Verify Release
A525	Monitor and Report Release
A526	Review and Close Release
A527	Evaluate Release Management Performance
A53	**Deployment Management**
A531	Establish Deployment Management Framework
A532	Plan Deployment Program
A533	Prepare Deployment Capabilities
A534	Perform Deployment
A535	Perform Deployment
A536	Verify Deployment and Activate Service
A537	Review and Close Deployment
A538	Monitor and Report Deployment Program
A539	Evaluate Deployment Management Performance

A5 – TRANSITION	
A54	**Configuration Management**
A541	Establish Configuration Management Framework
A542	Identify Configuration Items
A543	Control Configuration Items
A544	Report Configuration Status
A545	Verify and Audit Configuration Items
A546	Evaluate Configuration Management Performance
A55	**Asset Management**
A551	Establish Asset Management Framework
A552	Ready and Control Asset
A553	Control Asset Information
A554	Monitor, Audit and Reconcile Asset Records
A555	Oversee Asset Contracts and Financials
A556	Retire and Dispose of Asset
A557	Report Asset Information
A558	Evaluate Asset Management Performance

A6 – Operations

A6 – OPERATIONS	
A61	**Request Fulfillment**
A611	Establish Request Fulfillment Framework
A612	Receive and Approve Service Request
A613	Fulfill or Route Service Request
A614	Close Service Request
A615	Own, Monitor, Track and Communicate Service Requests
A616	Evaluate Request Fulfillment Performance
A62	**Service Execution**
A621	Establish Service Execution Framework
A622	Schedule and Adjust Workload
A623	Assign and Control Delivery Resources
A624	Deliver Service
A625	Monitor and Report Service Execution Operations
A626	Evaluate Service Execution Performance
A63	**Data Management**
A631	Establish Data Management Framework
A632	Plan Data Portfolio Lifecycle
A633	Acquire and Prepare Data
A634	Control, Deploy and Maintain Data
A635	Backup and Restore Data
A636	Dispose of Data
A637	Monitor and Report Data Management Operations
A638	Evaluate Data Management Performance
A64	**Event Management**
A641	Establish Event Management Framework
A642	Detect and Log Event
A643	Filter Event
A644	Correlate Events and Select Response
A645	Resolve Event

A6 – OPERATIONS	
A646	Close Event
A647	Evaluate Event Management Performance
A65	**Incident Management**
A651	Establish Incident Management Framework
A652	Identify and Log Incident
A653	Classify Incident and Provide Initial Support
A654	Investigate and Diagnose Incident
A655	Resolve Incident and Recover Service
A656	Close Incident
A657	Own, Monitor, Track and Communicate Incidents
A658	Evaluate Incident Management Performance
A66	**Problem Management**
A661	Establish Problem Management Framework
A662	Detect and Log Problem
A663	Categorize and Prioritize Problem
A664	Investigate and Diagnose Problem
A665	Resolve Problem
A666	Close and Review Problem
A667	Monitor, Track and Report Problems
A668	Evaluate Problem Management Performance
A67	**Identity and Access Management**
A671	Establish Identity and Access Management Framework
A672	Evaluate and Verify Identity and Access Request
A673	Creae and Maintain Identity
A674	Provide and Maintain Access Rights
A675	Monitor and Report Identity and Access
A676	Evaluate Identity and Access Management Performance

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A7 – Resilience

A7 – RESILIENCE	
A71	**Compliance Management**
A711	Establish Compliance Management Framework
A712	Identify Compliance Requirements
A713	Assess Compliance Requirements
A714	Define Compliance Controls Plan
A715	Implement Compliance Controls
A716	Audit and Report Compliance
A717	Evaluate Compliance Management Performance
A72	**Security Management**
A721	Establish Security Management Framework
A722	Produce and Maintain Security Policy
A723	Analyze Security Threats, Vulnerabilities and Risks
A724	Classify Information Asset Security
A725	Plan and Implement Security Practices
A726	Operate Security Protection Mechanisms
A727	Monitor, Assess, Audit and Report Security
A728	Evaluate Security Management Performance
A73	**Availability Management**
A731	Establish Availability Management Framework
A732	Determine Availability Requirements
A733	Formulate Availability and Recovery Design Criteria
A734	Define and Implement Availability Targets and Related Measures
A735	Monitor, Analyze and Report Availability
A736	Investigate Unavailability
A737	Produce Availability Plan
A738	Evaluate Availability Management Performance

A7 – RESILIENCE	
A74	**Capacity Management**
A741	Establish Capacity Management Framework
A742	Model and Size Capacity Requirements
A743	Monitor, Analyze and Report Capacity Usage
A744	Supervise Tuning and Capacity Delivery
A745	Produce and Maintain Capacity Plan
A746	Evaluate Capacity Management Performance
A75	**Facility Management**
A751	Establish Facility Management Framework
A752	Plan Facilities
A753	Manage Facility Request
A754	Operate and Maintain Facilities
A755	Evaluate Facilities Management Performance
A76	**IT Service Continuity Management**
A761	Establish IT Service Continuity Management Framework
A762	Identify Business Service Continuity Requirements
A763	Create and Maintain IT Service Continuity Strategy
A764	Create and Maintain IT Service Continuity Plan
A765	Prepare IT Service Continuity Capability
A766	Execute IT Service Continuity Plan
A767	Evaluate IT Service Continuity Management Performance

A8 – Administration

A8 – ADMINISTRATION	
A81	**Financial Management**
A811	Establish Financial Management Framework
A812	Perform Financial Modeling
A813	Plan and Control Budgets
A814	Perform Financial Accounting
A815	Administer Charging
A816	Audit Financials
A817	Evaluate Financial Management Performance
A82	**Supplier Management**
A821	Establish Supplier Management Framework
A822	Manage Portfolio of Suppliers
A23	Manage Supplier Contracts
A824	Manage Procurement
A825	Evaluate Supplier Performance
A826	Provide Supplier Product and Service Information
A827	Evaluate Supplier Management Performance
A83	**Service Pricing and Contract Administration**
A831	Establish Service Pricing and Contract Administration Framework
A832	Collect Pricing Data
A833	Provide Price Alternatives
A834	Administer Customer Contract Agreement
A835	Monitor Pricing Effects
A836	Evaluate Service Pricing and Contract Administration Performance
A84	**Workforce Management**
A841	Establish Workforce Management Framework
A842	Forecast and Plan Workforce
A843	Administer Human Resources
A844	Manage Skills
A845	Evaluate Workforce Management Performance

A8 – ADMINISTRATION	
A85	**Knowledge Management**
A851	Establish Knowledge Management Framework
A852	Create and Maintain Knowledge Plan
A853	Acquire Knowledge
A854	Evaluate and Structure Knowledge
A855	Disseminate Knowledge
A856	Monitor, Assess and Report Knowledge Status
A857	Evaluate Knowledge Management Performance