



The **TickIT***plus* Project

The Base Processes Library

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Contents

- The need for a BPL
- BPL requirements, structure, format and use
- PRM – design and use
- PAM – design and use
- BPL guidance material
- Future developments



The idea behind the BPL

- PRM requirement – fundamental to assessment and TickITplus - integrated into ISO/IEC 15504 structure
- Organisations in general have difficulty with process concepts
- Enables consistency of approach and a process baseline for assessment



Definitions - 1

- Process
 - Set of interrelated or interacting activities which transform inputs into outputs
 - ISO/IEC 15504-1
 - ISO/IEC 12207
 - ISO 9000



Definitions - 2

- Procedure
 - Specified way to carry out an activity or process
 - ISO 9000



Definitions – 3 (ISO/IEC 15504-1)

- **Process Reference Model**
 - a model comprising definitions of processes in a life cycle described in terms of process purpose and outcomes, together with an architecture describing the relationships between processes
- **Process Assessment Model**
 - a model suitable for the purpose of assessing process capability, based on one or more Process Reference Models



Definitions – 4 (ISO/IEC 15504-1)

- **Process Purpose**
 - the high level measurable objectives of performing the process and the likely outcomes of effective implementation of the process
- **Process outcome**
 - an observable result of a process
- **Base Practice**
 - an activity that, when consistently performed, contributes to achieving a specific process purpose
- **Work Product**
 - an artefact associated with the execution of a process



Aims of the BPL - 1

- Consistent process model for assessment compatible with ISO/IEC 15504
- Provide process based references to Requirements Standards in scope – define mandatory requirements
- Provide consistent process structure from the varying ISO/IEC IT standards



Aims for the BPL - 2

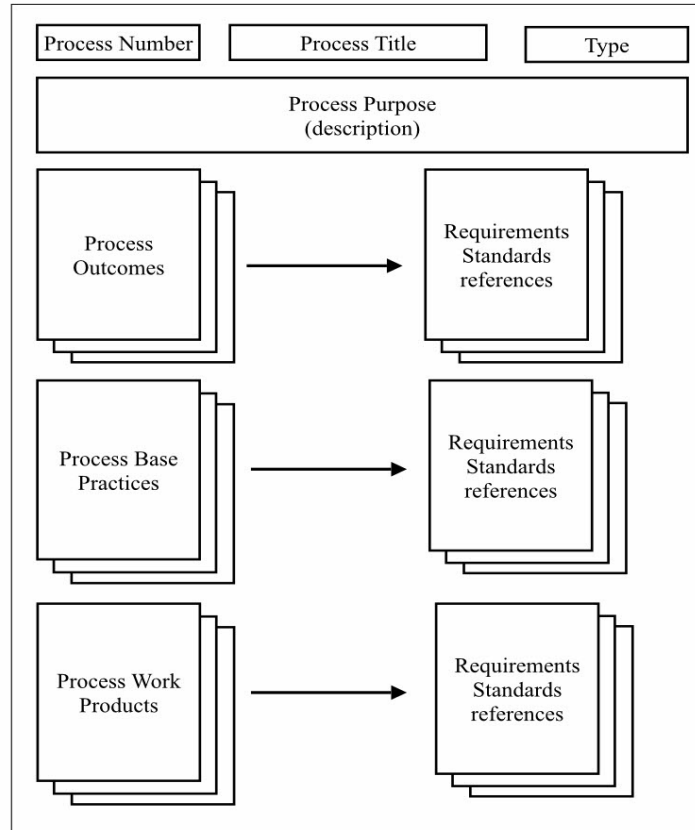
- Categorisation of processes in types A, B, C and M
- Allow generation of PRM and PAM
- Aid definition of Scope and Capability Profiles
- Provide a tool for estimation



BPL Processes Content

- Process number and title
- Process purpose
- Process outcomes
- Base Practices
- Work Products
- References to Requirements Standards

BPL Processes Structure





Structure of BPL

- Based on ISO/IEC 15288 and ISO/IEC 12207
- Additional processes added for ISO 9001 and other Requirements Standards
- Consolidation of some processes, expansion of others
- Focus on general IT, less on software development



BPL Process Categorisations

- Agreement processes
- Organisational processes
- Project processes
- Technical processes
- IT specific processes
- Maturity processes



BPL Agreement Processes

- Focused on supply, acquisition, contract management and business relationships
 - ARG1 Acquisition and Contract Management
 - ARG2 Supply Management and Business Relationships



BPL Organisational Processes - 1

- Corporate, organisational processes, but may also become sub-process areas in projects and other activities
 - ORG1 HR Management
 - ORG2 Quality Management and Audit
 - ORG3 Corporate Management and Legal
 - ORG4 Infrastructure and Work Environment
 - ORG5 Improvement



BPL Organisational Processes - 2

- ORG6 Measurement and Analysis
- ORG7 Customer Focus
- ORG8 Risk Management
- ORG9 Project and Product Portfolio Management
- ORG10 Lifecycle Model Management
- ORG11 Resource Management
- ORG12 Security Management



BPL Project Processes

- Project specific processes
 - PRJ1 Project Management
 - PRJ2 Decision Management
 - PRJ3 Configuration and Change Management
 - PRJ4 Information Management
 - PRJ5 Problem and Incident Management
 - PRJ6 IT Finance Management
 - PRJ7 Management Reporting



BPL Technical Processes - 1

- Focus on technical activities within projects, many ISO/IEC 12207 process descriptions are consolidated
 - TEC1 Document and Record Management
 - TEC2 Capacity Management
 - TEC3 Integration Management
 - TEC4 Verification
 - TEC5 Validation



BPL Technical Processes - 2

- TEC6 Transition and Release Management
- TEC7 Operations Management
- TEC8 Maintenance Management
- TEC9 Disposal
- TEC10 Stakeholder's Requirements Definition
- TEC11 Requirements Analysis
- TEC12 Service Level Management
- TEC13 Architectural Design
- TEC14 Development Implementation
- TEC15 Continuity, Availability and Contingency Management



BPL IT Specific Processes

- **Activities specific to IT**
 - ITS1 Domain Engineering
 - ITS2 Asset and Program Management



BPL Maturity Processes

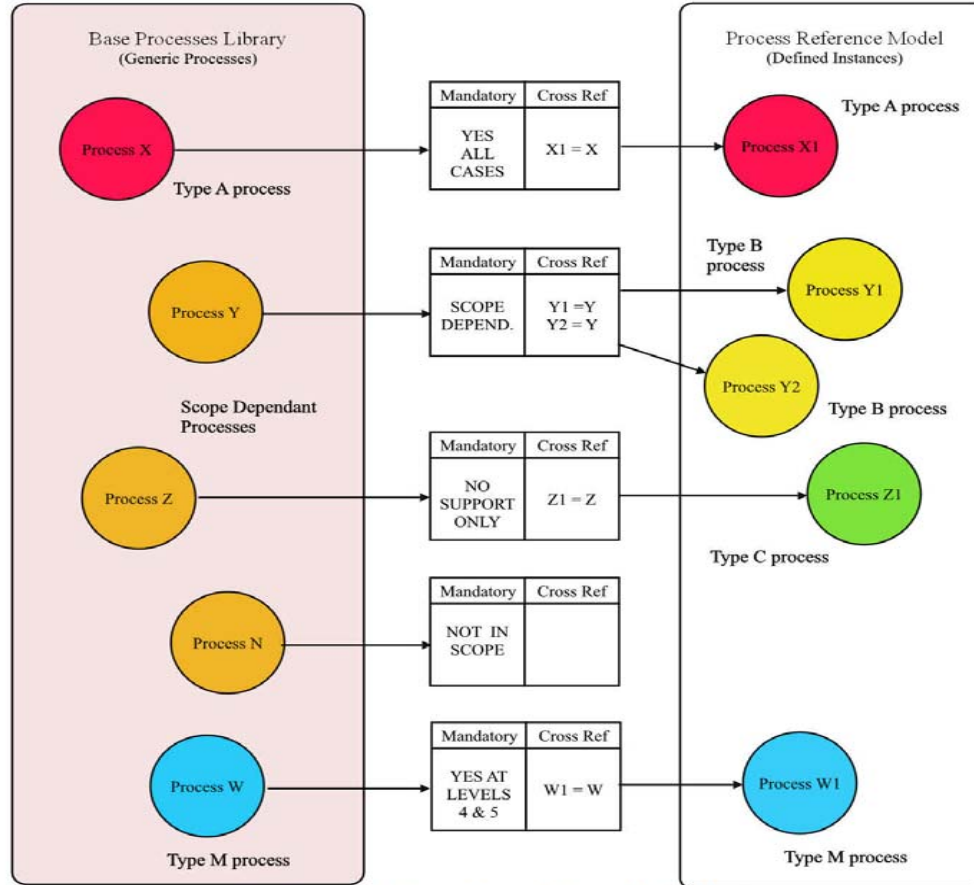
- Specific to levels 4 and 5 (Gold and Platinum) and focused on measurement and quantitative improvement aspects (Defined by ISO/IEC 15504-7)
 - MAT1 Quantative Performance Management
 - MAT2 Quantative Process Improvement



BPL Process Types

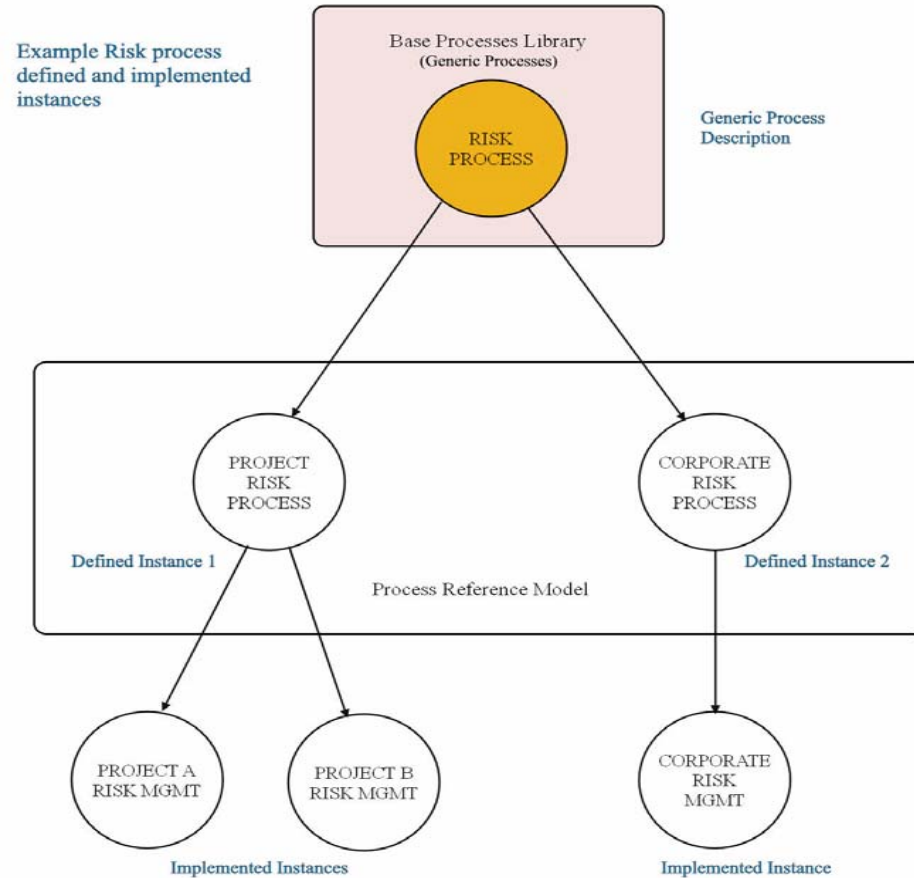
- Type A – Mandated by ISO 9001 requirements
- Type B – Mandated by scope (ISO 9001 and Requirements Standards)
- Type C – Supporting processes
- Type M – Maturity processes – mandated at Gold and Platinum

Process Mapping



Base Processes Library to Process Reference Model Mapping

Process Instances





ISO/IEC 15504 Assessment

- Process dimension – level 1
 - Base Practices
 - Work Products
- Capability dimension – levels 2 to 5
 - Generic Practices
 - Generic Resources
 - Generic Work Products



PRM Requirements

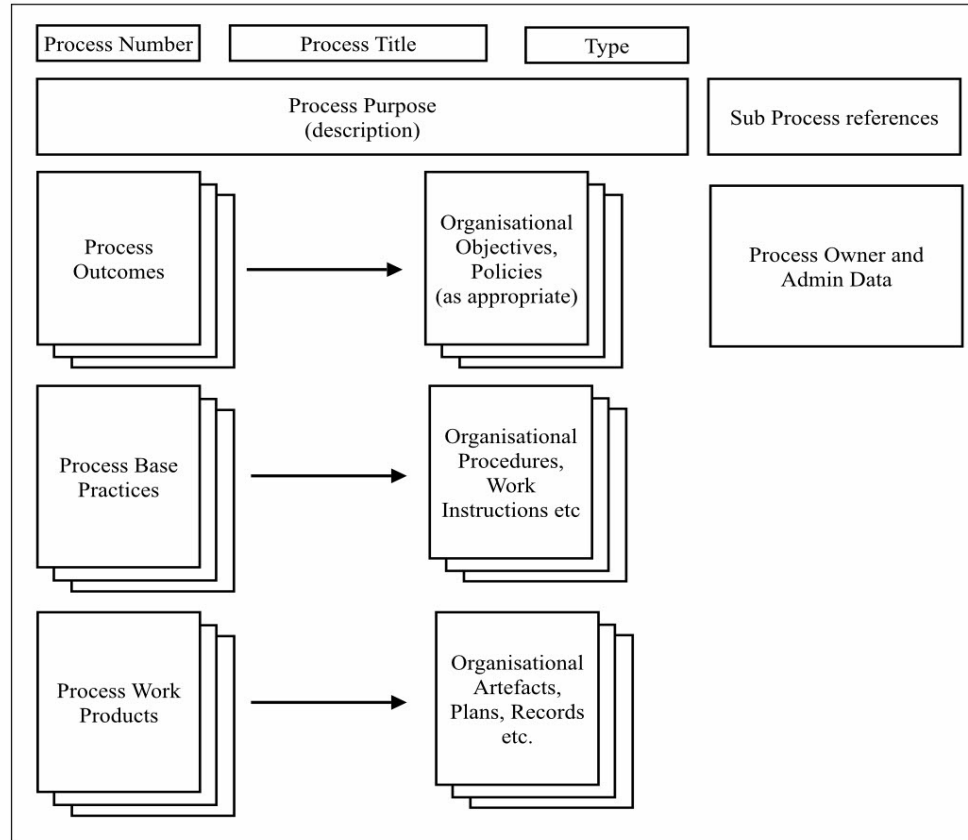
- Definition of organisation's scope related processes
- Reference for assessment
- Interface to organisational policies, procedures, instructions and artefacts
- Define relationships between processes



TickITplus Requirements for PRM

- Requirement at all levels, derived from BPL
- Must reflect complete TickITplus certification scope
- Maintained by organisation and verified by assessor
- Format not mandated

PRM Process structure





PAM Requirements - 1

- ISO/IEC 15504 assessment tool
- Maps onto PRM
- Identifies Base Practices and Work Products
- Identifies assessment instances and records results
- Describes Generic Practices according to level

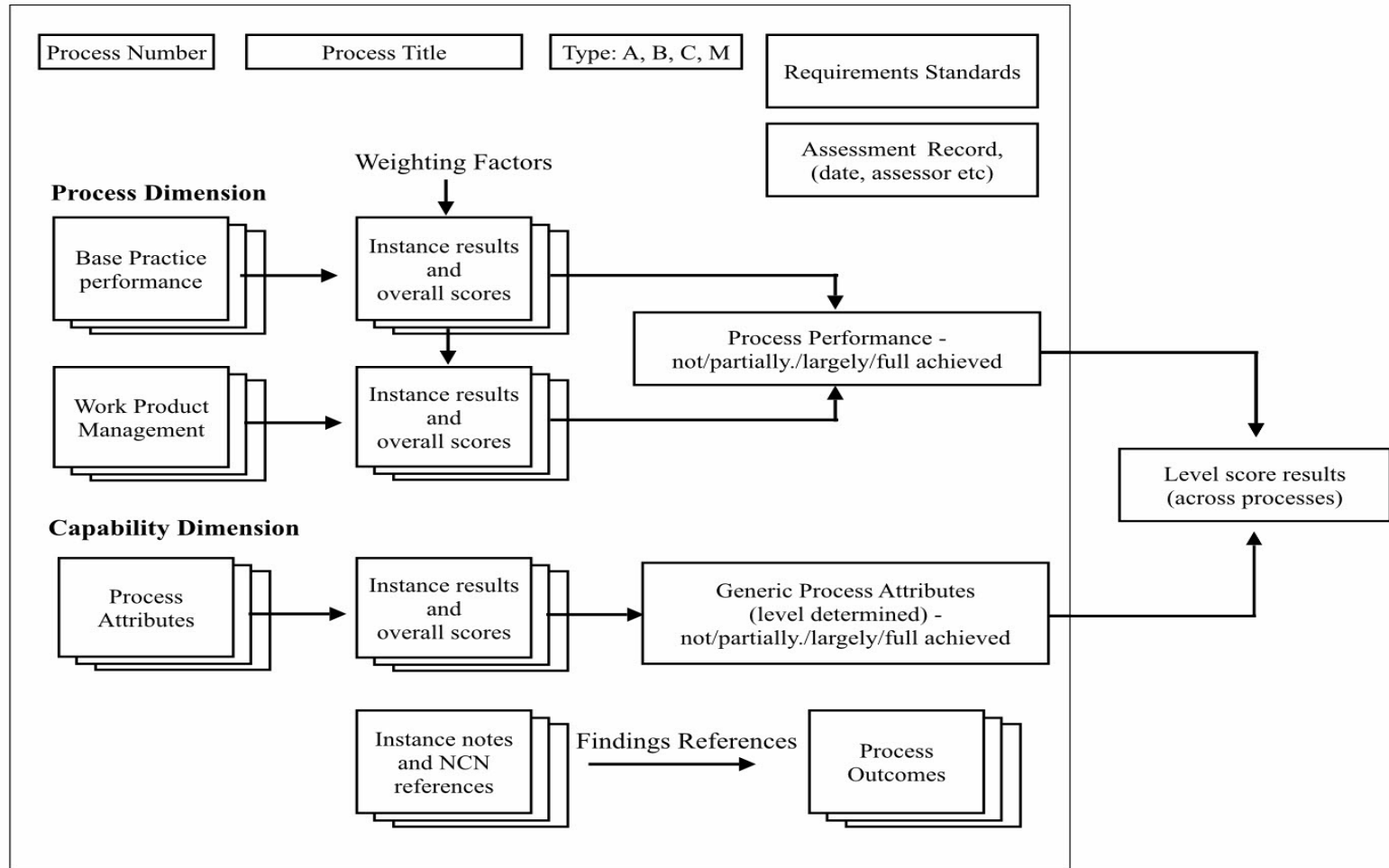


PAM Requirements - 2

- Provides weighting on mandatory requirements
- Calculates overall process rating
- Allows assessment scores to be collated and archived (future)



PAM Structure





BPL Format

- Issued as spreadsheet with macros to define:
 - PRM
 - PAM
- Maintained internally to TickITplus as controlled database – and issued to certified organisations



BPL TickITplus Operations

- Required for use in building organisation's PRM
- Required to build assessor's PAM
- Define Scope Profiles
- Define Capability Profiles
- Permits assessment effort requirements



BPL – Scope Profiles - 1

- Basic starting point in determining which BPL processes are required in the PRM according to selected scope
- Linked into Requirements Standards
- Based on the SFIA Skills Profiles and so a match to Auditor competencies
- Defined on certificate with tailoring options



BPL – Scope Profiles - 2

Scope Profile	Requirement/ Reference Standard
IT Systems Eng. and Infrastructure	
Product Validation, Quality and Measurement	ISO/IEC 25030
Information Management and Security	ISO/IEC 27001
Corporate Strategy Planning and Management	BS 25999
Legal and Compliance	BS 25999
Project and Programme Management	IEC 61508
Systems and Software Development and Support	IEC 61508
Service Management	ISO/IEC 20000



BPL – Capability Profile

- Defines assessment requirements across selected processes and levels
- Process Capability Indicators related to Generic Practices (ISO/IEC 15504-5) and specific processes – level 4 and above



BPL – Process Assessment calculations

- Based on defined scope and capability profiles
- Assessment units based on Base Practices to assess
 - Standard AU – set number of BPs per process
 - Defined AU – variation on standard, defined by profiles
 - Implemented AU – depends on process instances
 - Grade AU – determined by capability attributes required at assessment level
 - Assessment AU – determined by Exploration or Confirmation types of assessment requirements



BPL – Guidance information

- Tailoring BPL and generation of PRM
- Generic description of Work Packages and their use
- Individual guidance on individual or groups of processes and their implementation
- Handling sub-process descriptions
- PRM and PAM management
- Assessment aspects of processes
 - Organisational and project specific issues



BPL – facilities on Launch

- Spreadsheet format
- Ability to defined scope profile and generate PRM and PAM
- Assessment recording tool



BPL – future faculties

- Database format with options on PRM and PAM output
- Higher level assessment profiling
- Extended tailoring options
- Process extensible
- Additional standards added
- Facility for accumulation and analysis of assessment results



BPL - summary

- A required, mandated tool in TickITplus assessments
- Defines a consistent process format, structure and content
- Aid in developing scope and assessment requirements
- Generation tool for PRM and PAM