PROJECT PERFORMANCE
INTERNATIONAL

DATA ITEM DESCRIPTION	
1. TITLE REQUIREMENTS TRACEABILITY REPORT - REQUIREMENTS ANALYSIS (RTR-RA)	**2. IDENTIFICATION NUMBER** PPI-005695-4 31 August 2020

3. DESCRIPTION

The Requirements Traceability Report in Requirements Analysis (RTR-RA) describes the "is a restatement of" set of relationships between the originating requirements information input to a requirements analysis and the appearance of that information in the set of requirements that are the primary output of the requirements analysis. The input information is often in original form from users and other stakeholders, and often captured incrementally during analysis, whilst the output set of requirements is intended to have the status of having been validated, to be of an objectively adequate standard, and to be effectively organized for the purpose of communication.

The subject of the requirements may be a capability system, a physical (hardware) technology item, software, a service, an interface, or even a material, such as a lubricant. The item may be given a generic name in the requirements and the RTR-RA, such as "product", or a name that reflects the nature of the item, such as "aircraft" or "maintenance service". For brevity, a "system" will be referred to in this Data Item Description.

Traceability is a bi-directional relationship between originating requirements and "derived by analysis" requirements.

4. PURPOSE

The RTR-RA allows any stakeholder to efficiently determine whether and where their requirements have been accommodated in the system or software requirements specification or requirements database that drives capability development, acquisition, product development or other activity, as applicable. The RTR-RA allows a participant in a development or acquisition process to determine the ownership, original of, and recorded source of any requirement within the scope of the report.

The RTR-RA may be used in relation to any item that is the subject of a requirements analysis.

5. PREPARATION GUIDELINES

  5.1 General Instructions

  a) **Automated techniques.** Use of automated techniques is encouraged. The term "document" in this DID means a collection of data regardless of its medium.

6. SOURCE

5. PREPARATION GUIDELINES (continued)

b) **Alternative presentation styles.** Diagrams, tables, matrices, and other presentation styles are suitable substitutes for text when data required by this DID can be made more readable using these styles.

c) **Title page or identifier.** When data are supplied in the form of a paper document or word processing file, the document should include a title page containing, as applicable: document number; volume number; version/revision indicator; security markings or other restrictions on the handling of the document; date of issue, document title; name, abbreviation, and any other identifier for the system, subsystem, or item to which the document applies; contract number if applicable; CDRL item number if applicable; organization for which the document has been prepared and name and address of the preparing organization. For data supplied in an alternative form, this information should be included on external and internal labels or by equivalent identification methods.

d) **Table of contents.** When the RTR-RA is in the form of a paper document or corresponding digital file, the document should contain a table of contents providing the number, title, and page number of each titled paragraph, figure, table and annex. For the RTR-RA in an alternative form, this information should consist of an internal or external table of contents containing pointers to, or instructions for, accessing, each paragraph, figure, table and annex or their equivalents.

e) **Page numbering/labeling.** When data are supplied in the form of a paper document or word processing file, each page should contain a unique page number and display the document number, including version, volume, and date of issue, as applicable. For data supplied in an alternative form, files, screens, or other entities should be assigned names or numbers in such a way that desired data can be indexed and accessed.

f) **Response to tailoring instructions.** When data are supplied in the form of a paper document, paragraphs that have been tailored out of the DID should result in the corresponding paragraph number and title in the document, followed by "Not applicable" or alternatively, paragraph numbering may be varied to allow for the missing paragraph. For data supplied in an alternative form, the "Not applicable" representation may be incorporated in the table of contents or equivalent.

g) **Multiple paragraphs and subparagraphs.** Any section, paragraph, or subparagraph in this DID may be written as multiple paragraphs or subparagraphs to enhance readability.

h) **Standard data descriptions.** If a data description required by this DID has been published in a standard data element dictionary, reference to an entry in that dictionary is preferred over inclusion in the data item itself.

i) **Declarative style.** Where a non-declarative guidance style is used in this DID ("should") but a declarative style ("shall") is required by the user of the DID, the DID should be tailored accordingly.

j) **Substitution of existing documents.** Other existing documents may be substituted for all or part of the data item if they contain the required data and are invoked in the data item as a part of the data item.

5.2 FORWORD

Requirements traceability is of high importance in ensuring that each requirement communicated by a valid stakeholder appears in the set of requirements which is to drive subsequent action, or if it doesn't appear, that there is a valid, recorded reason as to why. Requirements traceability is also of high importance to ensure that each requirement in the set to drive subsequent action has identifiable, valid ownership, that is, that no requirement is spurious (for reason of, for example, "gold plating" – features that cost more than they are worth, and are not needed by the intended user of the system).

5.3 CONTENT REQUIREMENTS

Content requirements and guidance begin on the page 4. The paragraph numbers shown are for convenience of presentation to the reader, and may bear no relationship to the organization of information in the RTR-RA. Each such number is understood here to have the prefix "5.3" within this DID. For example, the paragraph numbered 1.1 is understood to be paragraph 5.3.1.1 within this DID.

TABLE OF CONTENTS

1. INTRODUCTION AND SCOPE

1.1 Document Overview and Use

This DID states the minimum requirements together with guidance for bi-directional traceability of requirements established through analysis of the problem domain (non-solution-specific), and the minimum content of a Requirements Traceability Report in Requirements Analysis (RTR-RA). This DID contrasts with DID PPI-005696: "Requirements Traceability Report in System Design (RTR-SD)" that deals with the system design, including capability development, application of requirements traceability.

In using this DID, the user of the DID may place additional requirements that correspond to need.

The RTR-RA format is not specified, as the origin of such a report may be from a requirements management software tool that provides tool-specific report formats only.

This DID also lists other potential traceability (in requirements analysis) report content.

2. APPLICABLE AND OTHER REFERENCED DOCUMENTS

2.1 Applicable Documents

There are no applicable documents.

2.2 Other Referenced Documents

PPI-005696: "Requirements Traceability Report in System Design (RTR-SD)"

3. DEFINITIONS, ACRONYMS AND ABBREVIATIONS

3.1 Definitions

The following definitions shall apply in the interpretation of requirements in this document:

a) **Capability System** means, in the context of this document, the system comprising the interacting set of relevant technology, people, process and other elements that satisfies, or is intended to satisfy, on a whole-of-life basis, the needs of one or more humans or organizations of humans by means of satisfaction of requirements specified in a Capability System Requirements Specification (CapSyRS).

b) **May** expresses permissive guidance.

c) **Non-Requirement** means an entity designated by the originator as a requirement (originating requirement), but classified by somebody with the authority to do so as an entity not recognized, nor to be acted upon, as a requirement.

d) **Requirement**, in the context of this document, means a characteristic that the item that is the subject of a requirements analysis is required to possess.

e) **Shall** expresses a requirement.

f) **Should** expresses a target or goal to be pursued, but not necessarily achieved.

g) **Verification Requirement**, in the context of this document, means a requirement specifying the quality or strength of evidence that a verification activity is to provide, the evidence being as to whether or not the system requirement to which the verification requirement corresponds has been satisfied.

h) **Will** expresses a declaration of intent by a party, usually the sponsoring or acquiring organization. "Will" does not express a requirement. "Will" may also be used in cases where the simple future tense is needed, for example, "The operating system will be supplied by the client".

3.2 Acronyms

This section should list alphabetically each acronym used in the RTR-RA, together with the acronym's expanded meaning.

Acronyms are used in this document with the following meanings:

CIV Compromise Impact Value

DID Data Item Description

PPI Project Performance International

RA Requirements Analysis

RIR Requirement Issue Record

RMT Requirements Management Tool

RTR Requirements Traceability Report

RTR-RA Requirements Traceability Report in Requirements Analysis

RTR-SD Requirements Traceability Report in System Design

SD System Design.

3.3 Abbreviations

This section should list alphabetically each abbreviation used in the RTR-RA, together with the abbreviation's expanded meaning, except that abbreviations within the International System of Units (SI) should not be listed.

Abbreviations are used in this document with the following meanings:

CapSyRS Capability System Requirements Specification

I/S Infrastructure

Info Information

REQID Requirement Identifier

SyRS System Requirements Specification

VREQID Verification Requirements Identifier

4. BACKGROUND TO REQUIREMENTS TRACEABILITY IN REQUIREMENTS ANALYSIS

4.1 Description

The RTR-RA describes the "is a restatement of" set of relationships between the requirements information input to a requirements analysis (originating requirements) and the appearance of that information in the objectively adequate set of requirements that are the primary output from a well conducted requirements analysis (derived requirements – derived-by-analysis).

Originating requirements and derived-by-analysis requirements in the RTR-RA apply to the **same** system. This contrasts with requirements traceability in design, for which a problem and solution relationship exists (system/system element having parent/child requirements respectively).

The input information to a system requirements analysis is in original form from users and other stakeholders, and is often augmented incrementally during analysis. The RTR-RA may also include for each derived (by analysis) requirement a linkage to the corresponding verification requirement.

These concepts and their relationships to requirements traceability in design are illustrated in Figure 4.1-1, using an enterprise system as an example.

The RTR-RA may be used in a Product Line Environment, in which the output "derived by analysis" set of requirements is partitioned into a common subset for all members of the product line, together with a dedicated subset of requirements for each member of the product line. Other subset structures may be used.

The RTR-RA may also be used where originating requirements are invoked by reference, for example, by invoking standards.

Although "originating" to "derived-by-analysis/derived-by-analysis to originating" relationships are the main focus of the RTR-RA, other relationships, including peer relationships within a set of requirements on an item may be recorded and reported. Examples of peer relationships are "cross-references/is cross-referenced by", "supersedes/is superseded by", "is in conflict with", "fully duplicates" and "partly duplicates".
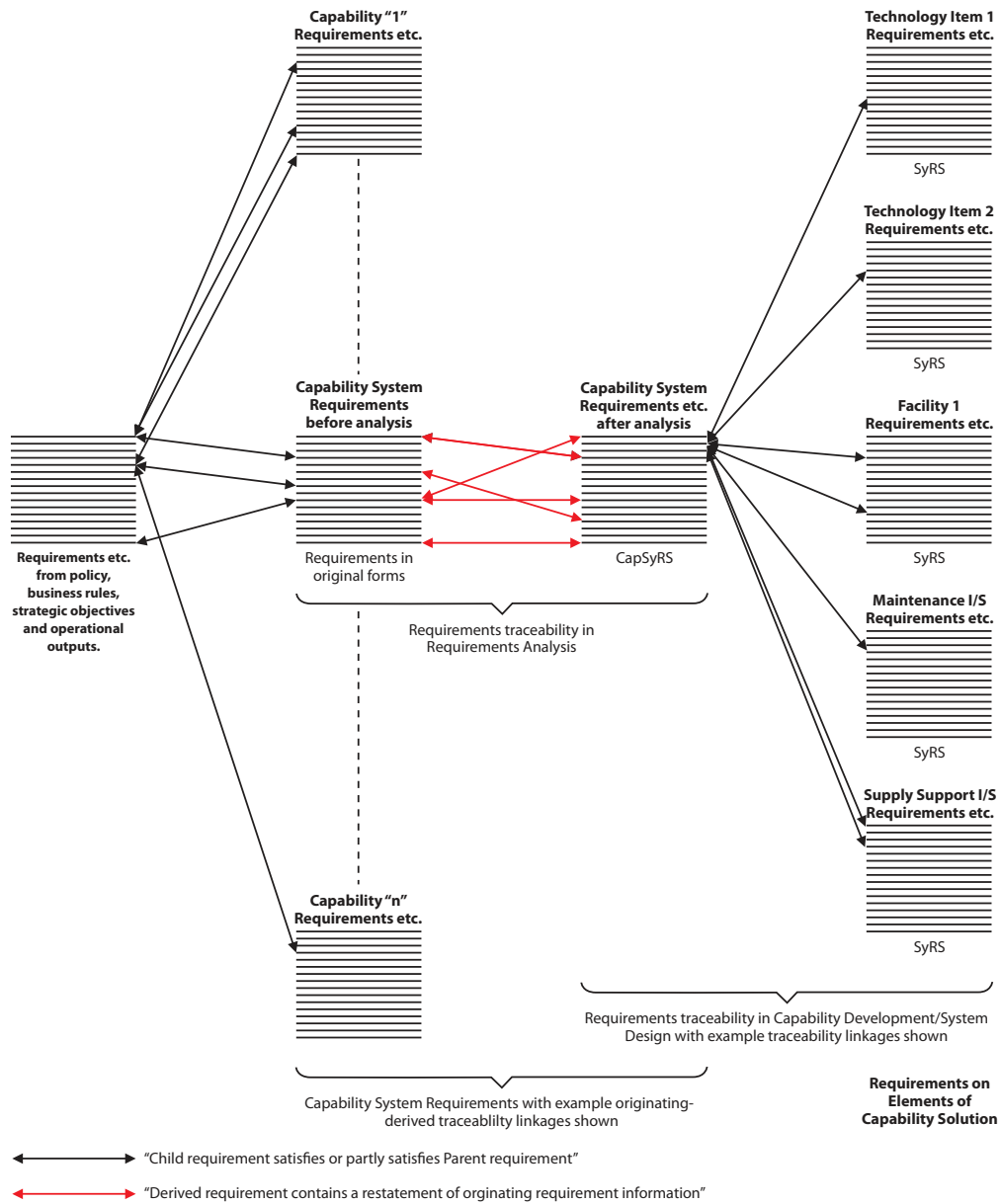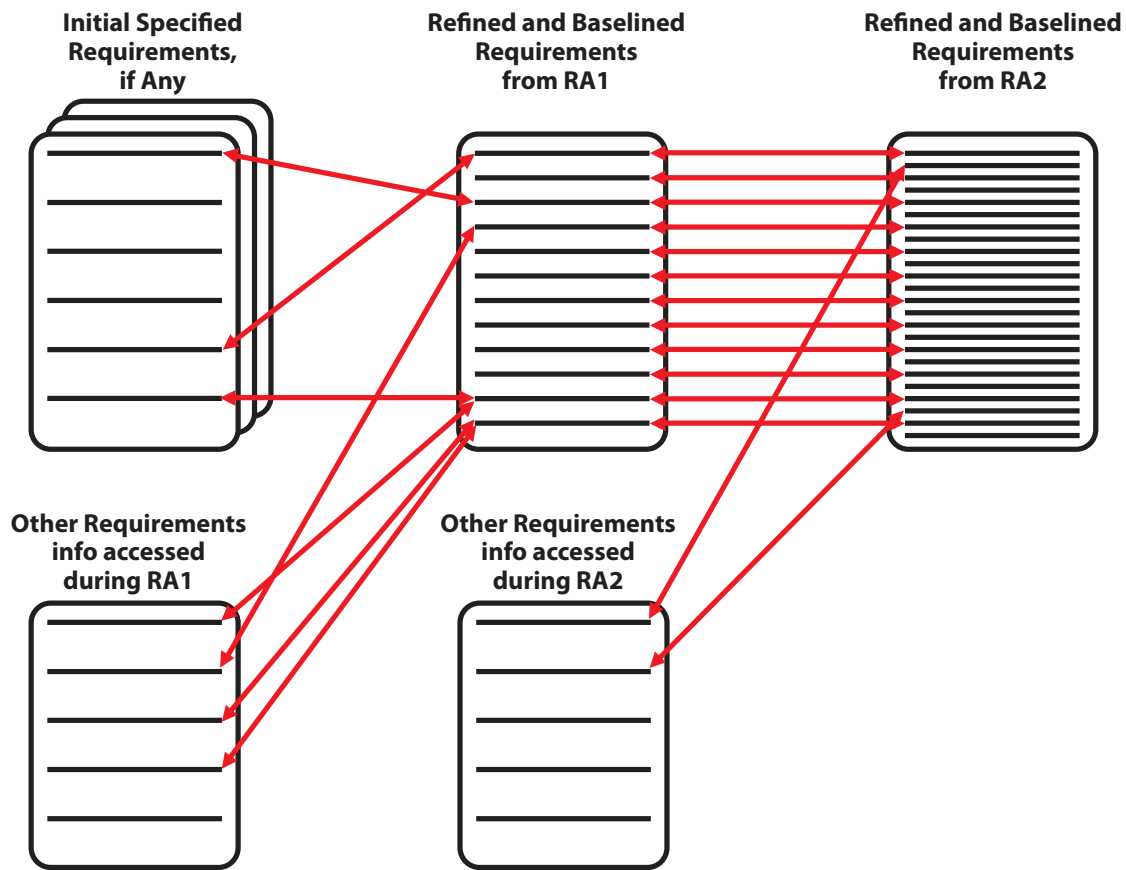

Figure 4.1-1 The Concepts of Requirements Traceability in Requirements Analysis and in Capability Development/System Design – Example

Requirements analysis may be performed recursively on elements of solution, through systems to subsystems, starting with those on the right-hand side of Figure 4.1-1. The entities performing various requirements analysis will often themselves vary, for example purchasing organization / contractor / subcontractor, or marketing-product management / product development team / sub-system team.

Requirements traceability in its requirements analysis form should normally be maintained through initial capability development/product development that is the subject of a program or project, and through the subsequent life of the potentially evolving capability/system/product. Thus, requirements analysis for a particular capability system or other item may be performed through successive increments. The maintenance of traceability through these increments is illustrated in figure 4.1-2.

Legend: RA1   First increment of Requirements Analysis   ——— Requirement
          RA2   Second increment of Requirements Analysis   ◄———► "Is a restatement of"
Only representative traceability relationships are shown.

Figure 4.1-2 Maintenance of Requirements Traceability Through Incremental Requirements Analyses

This approach is most suitable where both originating and derived-by-analysis requirements sets retain important status. An example would be RA1: refinement of a set of requirements by a customer between inviting tenders or proposals and contracting, and RA2: refinement of a set of requirements during contract, either via a contractor-performed/customer-required RA activity, or by formal contract change. An alternative for traceability in incremental requirements analysis is to simply regard the incrementally performed analysis as a continuation of a single requirements analysis, with individual requirements versioned and status assigned. This later approach is most suitable where only the originating set of requirements and the current derived (by analysis) set of requirements have a special status.

4.2   Purpose of Requirements Traceability Report in RA

The RTR-RA allows any stakeholder to efficiently determine whether and where their requirements have been accommodated in the system (or software, etc.) requirements specification that drives capability development, product development, acquisition or other activity, as applicable.

The RTR-RA also allows a participant in the capability/product development process to determine the ownership and original form and recorded source of any requirement in a system (or software, etc.) requirements specification. The RTR-RA also contributes to independently performed audit of projects.

The RTR-RA may be used in relation to at any capability system, technology item, material, service or interface that is the subject of a requirements analysis.

4.3 Applicability

The RTR-RA applies to requirements (usually "shall" statements) and goals (usually "should" statements), as well as to non-requirements. The RTR-RA does not apply to permissive guidance – "may" statements, and declarations of intent or futurity – "will" statements. Nor does the RTR-RA apply to headings for one or a group of requirements.

4.4 System (Capability, Software, etc.) Requirements Attributes in a Database

4.4.1 Minimum Requirements and Goals Attributes for RA Traceability

In order for an originating requirement and a derived (by analysis) requirement to be uniquely identifiable and therefore traceable, the requirement is to have the following minimum attributes in a requirements database.

a) REQID - The requirements identifier (REQID) is a code that invariably incorporates a number that **uniquely** identifies the specific requirement within a set of requirements. This number could be project-specific or program-specific, and may have been generated automatically by a requirements management software tool in use. The REQID may incorporate identification of the item that is the subject of the requirement.

b) Subject - This is the item that is the subject of the requirement (the Actor). Every requirement must have an Actor, unless it is in a library of reusable requirements.

c) Requirement Statement - This is the expression of the requirement in some suitable language, and may include additional information by reference.

d) Class - either "Originating" or "Derived-by-Analysis", as applicable.

e) Ownership - The identification of the organization and/or person who, with appropriate authority, created or has a right to change the requirement. A requirement must have at least one owner, and may have more than one owner.

f) Rationale - This attribute field must be present. For Derived-by-Analysis requirements, rationale provides traceability to the work that captured and validated the requirement. The record of rationale helps ensure that the original justification, insight and thought process related to the requirement are understood before changes to the requirement are made. This record of rationale may be used in combination with Source Reference (see 4.4.2) providing a link into analysis records, such as a Requirements Issue Record, a Use Case, or some other form of problem-domain physical or logical model,

Where "requirement" is referred to in this paragraph without any corresponding reference to goal, the reference applies to both requirements and goals.

4.4.2 Optional Requirements Attributes for RA Traceability

Each requirement may have assigned in a requirements database a selection of the following additional attributes. The importance of each of these candidate attributes varies greatly, both in general and in specific implementations of requirements management (the purpose of an attribute may be better achieved in some other way). The candidate additional attributes are:

a) Importance - One of Critical, Very Important, Important, Lower Importance, Low Importance or an alternative scale of importance. Importance may be expressed in terms of Compromise Impact Value (CIV), with a number range of 10 (most important) to 1 (least important), the CIV value relating to the magnitude of damage done or loss incurred if the requirement were not met.

b) Source Reference:

    i) For Originating Requirements - provides a reference to the source document or information record as to where the requirement comes from. This field is used to link the requirement to a specific source document when an originating requirement is provided by a stakeholder in document format, or if the requirement is the subject of a Requirement Issue Record (RIR). The Source Reference may include document number, document name, paragraph number, paragraph title, individual requirement REQID where the REQID itself communicates the source, file name, etc., as applicable. There may be more than one source document. Where the source is itself subject to requirements in the same database, the Source Reference may be one or more links to one or more originating requirements (for a requirements analysis relationship) or parent requirements (for a design relationship) present within that source.

    ii) For Derived-by-Analysis - a reference or link into analytical records.

c) Status, from, as applicable:

i) For requirement: "Incomplete Requirement" (work-in-progress), "Ready for Review", "In Review" "Baselined Requirement", "Superseded Requirement", or "Non-Requirement". "Non-Requirement" should be used only for originating requirements.

ii) For goal: At least "Incomplete Goal" (work-in-progress), "Baselined Goal", "Superseded Goal", or "Non-Goal". "Non-Goal" should be used only for originating goals.

d) Included Note - The text (if any) of any note that is to accompany the requirement in its database form and its form in a requirements specification document. Notes may alternatively be treated as unique objects and linked to requirements. This latter approach allows for reuse of notes.

e) Comments - This attribute is used for ad-hoc comments and notes (if any) not intended to be reproduced with the requirement in a requirements specification.

f) Corresponding Verification Requirement (if any) - For a system requirement, this attribute identifies and links to the corresponding verification requirement relating to system (software, etc) verification (not design verification). For a goal, this attribute identifies and links to any corresponding verification requirement relating to determination as to whether, or to what degree, the goal has been satisfied. Verification requirements may alternatively be treated as unique objects and linked to corresponding system requirements. This latter approach allows for reuse of verification requirements.

g) Verification Status - One of Not Used/Not Yet Verified/Passed/Failed/Passed After Re-Verification/Not Applicable.

"Not Used" means that the requirement database is not being used to record verification status. It does not necessarily mean that the satisfaction of the requirement will not be verified. "Not Yet Verified" means that verification is planned but has not yet been conducted or completed. "Not Applicable" means that there is no intent to conduct verification of satisfaction of the requirement.

h) Date the Requirement was first entered.

i) Approval Date: The date on which the requirement was approved in its current version by the requirement owner(s).

j) If the RMT is configured to version requirements under the same REQID, date of the last change to the requirement.

k) Version - For larger analyses for more critical systems, each requirement identified by its REQID may be itself versioned, allowing the evolution of a requirement through analysis to be traced. In this case, earlier versions will have the status "Superseded Requirement". Alternatively, a requirement that is the subject of a change may be superseded and replaced by a new requirement with a new REQID, with linkage to its predecessor.

l) Name - The name of the requirement is a short descriptive name that can be used to refer to the requirement in addition to its REQID. Uniqueness of naming may or may not be enforced.

m) Type - The primary type of requirement can be *one* of the following:

i) State/Mode - States the required states and/or modes of the item, or the required transition between one state and another state, one mode and another mode, mode in one state to mode in another state. A "state" is a condition of something. A "mode" is functionality related to a significant aspect of use, usually a group of functionality.

ii) Functional - States what the item is to *do*. Functional alone is, at least technically, incomplete.

iii) Performance - For a given function, states *how well* that function is to be performed by the item, that is, performance is an attribute of function. Performance alone is incomplete.

iv) Functional and Performance.

v) External Interface - States the required characteristics at a localized point, or region, of connection of the item to the outside world (e.g., location of interface, geometry of connection, inputs and outputs by name and specification, allocation of signals to pins, etc.).

vi) Environmental - Limits the effect that the external enveloping environment (natural or induced) is to have on the item, or limits the effect that the item is to have on the external enveloping environment.

vii) Resource - Limits the usage or consumption by the item of an *externally* provided resource, or requires the use of an *externally* provided resource.

viii) Physical - States a required *physical characteristic* (properties of matter) of the item as a whole (e.g., mass, dimension, volume).

ix) Other Quality - States any other required quality of the item that is not one of the above defined types, nor is it a design requirement.

x) Design - Directs the design (internals of the item), by inclusion (build it internally this way), or exclusion (don't build it internally this way). Any requirement on a subsystem, component, part, material, etc. in a requirement set for a parent system is, by definition, a Design Requirement.

xi) Compound - A requirement statement that expresses more than one requirement in the one expression, e.g. sentence.

Note: The same types apply also to goals (also termed design goals, targets, objectives).

n) Name of Requirement Enterer – the person making the entry or import of the requirement into the RMT. This person may or may not be the requirement owner.

o) Stakeholders, Other – Those stakeholders who are not the owner(s) or enterer of the requirement, but who should be informed of any proposed or actual change to the requirement or non-compliance.

p) Stability, Expected – some measure of the likelihood or otherwise that the requirement will change.

q) Priority – The preferred sequence of implementation.

r) Quality Metric Value – The quality value of a requirement on a suitable scale, reflecting absence of defects such as ambiguity, factual incorrectness, lack of verifiability, etc.

s) Risk Index - Implementation – Risk broadly is the product of the Importance of a Requirement multiplied by the probability of the requirement not being satisfied, expressed by some suitable measure of risk.

t) Risk Index - Requirement Defect – Risk broadly is the product of the Importance of the requirement multiplied by the probability of loss due to defects in the requirement, expressed by some suitable measure of risk.

u) Architectural Design Driver – This is a requirement that it is expected will significantly influence the concept of the design of the system/product usually a YES/NO value.

v) Issues - This attribute field can be used to record relevant information not addressed by other attributes.

w) Operational Requirement – This is a requirement that serves an end-use purpose. Usually a YES/NO value.

x) Regulatory – This is a requirement that has its origin in Regulation. Usually has a YES/NO value.

y) Legal – This is a requirement that has its origins in statute law. Usually has a YES/NO value.

z) Build Allocation – The build, release or increment to which the requirement is allocated for implementation.

aa) Product Line – Identification of the Product Line to which the product that is the subject of requirements belongs.

Where "requirement" is referred to in this paragraph without any corresponding reference to "goal", the reference applies to both requirements and goals.

4.5 Verification Requirements Attributes for RA Traceability

4.5.1 Minimum Verification Requirements Attributes for RA Traceability

Where verification requirements are included in the requirements database, the following attributes are to be recorded for each verification requirement:

a) VREQID - The verification requirements identifier (VREQID) **uniquely** identifies the specific verification requirement within a set of verification requirements. This identifier could be project-specific or program-specific, and may have been generated automatically by a requirements management software tool.

b) Verification Requirement Statement - This is the expression of the verification requirement, which is a statement on the qualities or strength of the evidence required that a system requirement has been satisfied: the characteristics required of any verification solution. A Verification Requirement Statement may comprise or include a statement defining a directed verification method (one of Analogy, Analysis, Analysis incorporating Test data, Certification, Demonstration, Examination/Inspection; and Test), but verification requirements are not (or should not be) just a list of verification methods.

In addition, the system (software, etc) requirement(s) to which the each verification requirement corresponds is/are to be identifiable, unless the requirement is a member of a pool of reusable verification requirements.

4.5.2 Optional Verification Requirements Attributes for Traceability in RA

Where verification requirements are included in the requirements database, the following attributes may be recorded for each verification requirement:

a) Name - The name of the verification requirement is a short descriptive name that can be used in addition to the VREQID to refer to the verification requirement. Such a name will often reflect the subject matter of the system or software (etc.) requirement to which the verification requirement relates. An alternative is to use the Name attribute (if used) of the corresponding system or software (etc.) requirement.

b) Ownership - This is the identification of the organization and/or person who, with appropriate authority, created or has a right to change the verification requirement. A verification requirement must have at least one owner, and may have more than one owner.

c) Date on which the verification requirement was first entered.

d) Status - "Incomplete Verification Requirement" (work-in-progress), "Ready for Review", "In Review", "Baselined Verification Requirement", "Superseded Verification Requirement"

e) Approval Date: The date on which the verification requirement was approved in its current version by or on behalf of the verification requirement owner(s).

f) If the RMT is configured to version verification requirements under the same VREQID, date of the last change to the verification requirement.

4.6 Attribute Differences Between "Originating" and "Refined by Analysis" Requirements

It is recommended that the same set of attribute fields be adopted for both "Originating" and "Refined by Analysis" requirements, to accommodate the very many scenarios within which requirements analysis is conducted and requirements traceability in RA is implemented. Similarly, it is recommended that the same set of attribute fields be adopted for both "Derived-by-Analysis" requirements and requirements subject to requirements traceability in system design, to accommodate the very common situation of the refined set of requirements becoming the set that drives design, assuming the status of "parent" requirements in implementation of requirements traceability in design. See PPI-005696: "*Requirements Traceability Report – System Design (RTR-SD)*".

However, the fact that an attribute field is defined does not mean that the field should necessarily be populated fully, or at all. Plan and conduct the implementation of requirements traceability with an ever-present focus on value-adding, and ruthless exclusion of anything for which the value proposition is weak.

4.7 Additional Factors to Consider in Requirements Traceability for RA

Due to the number and complexity of the relationships, requirements traceability for RA is typically implemented with computer-based requirements management tools.

Requirements traceability in RA has also a further temporal aspect, viz. that the requirements themselves and the traceability between requirements change over time, necessitating a formal change control process with respect to baselined requirements and associated requirements traceability information.

5. REQUIREMENTS FOR A REQUIREMENTS TRACEABILITY REPORT IN RA

The RTR-RA should contain all, or a user-selected subset, of the following information, selectable in all combinations by the user of the RTR-RA:

a) The system (software, etc.) to which the report relates

b) For each originating requirement, the requirement REQID

c) For each originating requirement, Class "Originating"

d) For each derived (by analysis) requirement, the requirement REQID

e) For each derived (by analysis) requirement, Class "Derived-by-Analysis"

f) For each originating requirement, the requirement text, or a link to the requirement text

g) For each derived-by-analysis requirement, the requirement text, or a link to the requirement text

h) For each originating requirement, the one or more requirements derived-by-analysis from that requirement

i) For each derived-by-analysis requirement, the one or more originating requirements

j) For each requirement, the baselining status of the requirement (i.e. "Incomplete Requirement" (work-in-progress), "Ready for Review", "In Review", "Baselined Requirement", "Superseded Requirement", or "Non-Requirement".)

For each originating Non-Requirement, the report should contain:

a) the "requirement" REQID

b) the "requirement" text, or a link to the "requirement" text

c) the date and time of creation of, or of any previous change to the non-requirement, whichever is the later

d) the reason for classification as a Non-Requirement

e) the identity of the person or persons authorizing the classification "Non-Requirement".

Note that, by definition, non-requirements cannot be derived-by-analysis requirements.

A Requirements Traceability Report in RA (RTR-RA) may contain the following additional information:

a) for each originating requirement, the one or more verification requirements that state(s) the quality or strength of evidence that is required to constitute adequate evidence of its satisfaction by the system or software.

b) for each derived-by-analyses requirement, the one or more verification requirements that state(s) the quality or strength of evidence that is required to constitute adequate evidence of its satisfaction by the system or software.

c) for each requirement, that has been baselined, the date and time of creation of, or of any previous change to the requirement, whichever is the later.

Note that the provision for inclusion of verification requirements information for either or both of originating and derived (by analysis) requirements allows for the possibility of, for example, verifying to an originating customer set of requirements, but developing to an improved "derived-by-analysis" set of requirements.

6. OTHER POTENTIAL REPORTS

Other reports may be generated flexibly or be included in the RTR-RA, especially:

a) list of requirements each with corresponding verification status.

b) list of requirements each with identity and text of corresponding verification requirements.

c) list of requirements, each with requirements text and corresponding rationale.

d) a variety of verification-related reports.