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Design of Knowledge Based Glossary Support System

*Design and Development of a TTCP Glossary of Planning and
Scheduling Terms and Concepts*

Donald Sofge, Adel Guitouni, Micheline Bélanger, Anthony Newton, Luke Marsh, Piper Jackson,
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DRDC Valcartier

Defence Research and Development Canada – Valcartier

Scientific Literature

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Abstract

This document outlines the design and implementation of a tool that would help elucidate the differences in commonly used planning and scheduling terminology.

Résumé

Ce document décrit la conception et la mise en œuvre d'un outil qui aiderait à élucider les différences dans la terminologie de planification et d'ordonnancement communément utilisée.

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The Technical Cooperation Program

Australia - Canada - New Zealand - United Kingdom - United States of America

TTCP TECHNICAL REPORT

**DESIGN AND DEVELOPMENT OF A TTCP GLOSSARY OF
PLANNING AND SCHEDULING TERMS AND CONCEPTS**

DESIGN OF KNOWLEDGE BASED GLOSSARY SUPPORT SYSTEM

07 February 2012

**Donald Sofge, Adel Guitouni, Micheline Belanger, Anthony Newton, Luke Marsh,
Piper Jackson, Jens Happe, Roozbeh Farabod**

C3I – TP4 – 2 - 2012

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CONTENTS

1. Overview	3
2. Summary of Workshop	3
3. Glossary Terms of Reference	7
Background / Justification	7
Operating Principles.....	7
What Glossary Does	8
What Glossary Does Not	8
4. Glossary Design	9
Governance.....	9
Content	11
Access Control.....	12
Structure.....	13
Services Provided / Basic Functionality	15
Concept of Use	19
Illustrative Examples.....	19
5. Implementation Guide	41
Platform.....	41
Example of Implementation.....	48
Hosting Responsibilities	51
Source Material	51
Timetable	52
6. Conclusion	53



1. Overview

Misunderstanding is a risk in any form of communication, but it is of particular concern in a military context, due to the dangers involved. This is one reason why words used by military services develop a very specific meaning – so that a message or command is clear, especially in critical situations, where verification may be difficult or impossible. Yet, these specific meanings can vary greatly across nations or services, even within a group with shared interests and cultural background, such as the TTCP coalition nations. Interpretation can even differ due to application context, such as amphibious operations. Thus, it is vital to remain aware of the possibility of differences in interpretation when personnel from more than one service are working together.

This became clear at previous TP4 meetings. While working on the North Atlantis Scenario, team members found that the planning terminology they were using did not always conform across countries or services. From this, the value of a resource that would help to elucidate the differences in commonly used planning and scheduling terminology was established.

This document outlines the design and implementation of a tool that would act as such a resource. This glossary will allow selected personnel in coalition countries to efficiently and effectively investigate the definitions of terminology across a variety of contexts of interest. [Where possible,] these definitions will come from official sources and be accompanied by suitable references. The glossary will also provide a venue for the discussion and illustration of differences in meaning. In the end, it is designed to assist in the development of official definitions for coalition use. Eventually, it is hoped that this glossary will be a tool to reduce misunderstanding and assist in planning and scheduling for coalition forces working with allied organizations.

2. Summary of Workshop

TTCP C3I TP4 held a first workshop to create a draft glossary on planning and scheduling that will enhance interoperability in plan development and execution between TTCP nations. This workshop maintained the panel member position that the glossary should respect the integrity of each nation's planning methodology and tool. The objective of Workshop on Planning and Scheduling Glossary Version 1 were:

- Develop a common P&S terms and definition across the TTCP Nations;



- Identify gaps and requirements for improvements; and
- Draft a Working TTCP report.

The workshop was hosted by DRDC from September 27th to October 1st 2010 in the city of Victoria, British Columbia, Canada. The attendees included the TTCP panel members, industry representative and Ph.D. students. The UK and NZ were not represented at the workshop. Inputs from UK have been considered though.

The workshop agenda is as follow:

Time	Day1	Day2	Day3	Day4	Day 5
	Monday	Tuesday	Wednesday	Thursday	Friday
	27September	28 September	29 September	30 September	1st October
		Arrival	Arrival	Asynchronous Report Write-Up	Arrival (TTCP C3I TP4 Members Only)
900 - 930	Arrival	Feedback on KSCO	Discussion of different collaboration systems		Update on LTE and AG1 Plan Representation Activities
930 - 1000	Introduction + Review of Agenda (Adel)	Objectives and format of the Glossary			Review of TP4 Action Items (Adel)
1000 - 1030	Review of C3I directives + Review of TP4 members (Adel)				Identification of events relevant to TP4
1030-1100	Break				
1100 - 1130	US Perspectives on Planning and Scheduling Taxonomies	Continued	Demonstration of the extraction of terms from the US DOD (MDA)		Finalise Minutes
1130 - 1200	AUS Perspectives on Planning and Scheduling Taxonomies	Functions and tools for a Knowledge Based Syst.			
1200-1300	Lunch (Buy your own)				
1300 - 1330	CA Perspectives on Planning and Scheduling Taxonomies	Continued	Extended Panel Lunch	Synchronous Report Write-Up	



Time	Day1	Day2	Day3	Day4	Day 5	
	Monday	Tuesday	Wednesday	Thursday	Friday	
1330 - 1400	UK? Perspectives on Planning and Scheduling Taxonomies					
1400 - 1430	Discussion - Structure of TP4 Taxonomy i. Planning vs scheduling	Structure of the Technical Report	Distribution of the contributions to the panel report			
1430 - 1500	ii. Domains iii. Levels etc.		Day 3 Wrap Up			
1500 - 1530	Break		Asynchronous Report Write- Up	Break		
1530 - 1600	Day1 Wrap Up	Day 2 Wrap Up		Finalise Report		
1600 - 1630						
1630 - 1700				Day 4 Wrap Up		

The following planning and scheduling glossary elements have been identified during the first day of discussion:

- **Planning Domains:** the participants recognized that the terms related to planning and scheduling are context and domain dependent. The interpretation and the definitions might vary from one domain to another. There has been an agreement that the following are domains: Air, Space, Cyberspace, Maritime and Land. However, the participants did not come to a consistent conclusion about the following: Logistics, Intelligence, Surveillance and Reconnaissance (ISR), Communications, URBAN Operations and Joint. Are these domains, context or what?
- **Levels of Planning and Scheduling:** The participants identified that planning is conducted at different levels (High Level (strategic), Middle Level (operational), and Low Level (tactical)). Terms might have different interpretations and implications based on the level of planning.
- **Planning and Scheduling Products:** planning generates at least plans. The participants maintain that there are many other planning and scheduling products and artifacts that should be captured in the glossary.



- Planning Descriptors: the workshop identified that planning and scheduling as well plans and schedule and their components are described differently which might lead to miss-understanding and confusion.
- Naming Convention: the workshop participants recognized that different countries and even different services in the same country use different naming conventions and standards that made collaborative planning and scheduling challenging.
- Planning and scheduling descriptors:
- Organization/Roles/Responsibilities:
- Scheduling in the military application includes Synchronization matrix, Time, Space and Activities.
- Types of Plans which might include Plan, Op Plan, Contingency Plan, Frag Order, Tasking Order
- Quality of Plans
- Force Planning Scenarios
- Issues including:
 - Temporal issues
 - Domains do not correlate well (e.g., weeks, days to seconds or milliseconds)
 - How to achieve Commander's intent through these different domains?
 - How to develop across domain system that can account for all these nuances?
 - How well the model should be?
 - Integrated planning and Integrated C2?
 - Glossary important to integrate different Air Force planning initiatives for the different domains!



- There is no common taxonomy or ontology for the different systems
- Status Quo
 - Most of the doctrinal documents include some sort of a glossary and a list of acronyms
 - Glossaries are created for a particular operations
 -

3. Glossary Terms of Reference

Background / Justification

Whether within coalition, allied, joint, or interagency operations, the military requires a common understanding of terms. Within the planning and scheduling community, the need for understanding is greater still, given that resource allocation and coordination issues and decisions predominate. The TTCP nations share common roots of military doctrine. Yet, within the planning and scheduling communities there are differences in terminology that could lead to misunderstanding.

TTCP C3I Group, Technical Panel 4 will undertake a study to construct a glossary of military planning and scheduling terms. The Panel will draw the definitions for these terms from national doctrine. The panel will construct an electronic knowledge base consisting of these terms and definitions that will allow both researchers and operational warriors to compare the different lexicons used by the national planning and scheduling communities to reduce the misunderstandings that can occur within operation centers.

Operating Principles

The electronic glossary, when implemented by the Panel, will operate as a tool for collaboration. The Panel plans to restrict the initial scope to the immediate TTCP community and to offer the services of the glossary to foster better interaction among C3I Group panels when working on collective exercises, experiments, or activities.



The Panel intends the glossary to be used principally for human understanding rather than for machine-to-machine interaction. Thus, the Panel does not intend to create an exhaustive ontology or taxonomy that would normally occur for such endeavours. While simple in structure, the information contained within the glossary should lead the user to discover the problem areas of miscommunication that occur when one common word shares different meanings derived from different communities.

Once created, it is the hope of this Panel that the glossary will encourage its users to form a self-sufficient community in order to keep the glossary both current and relevant for its users.

What Glossary Does

The glossary does provide planners operating under the auspices of TTCP to deconflict terms associated with planning that may have different meanings within the nations.

The glossary does provide the ability to identify disconnects in planning terminology between the nations that may be corrected within national doctrine as required.

The glossary does support the intent of TP4 to participate with other C3I Group technical panels to collaborate on common activities associated with command and control activities designed under the NATO Atlantis scenario.

The glossary does allow more widespread users, both academic and operational, to investigate the differences in planning terms and definitions present within the nations and NATO.

What Glossary Does Not

The glossary does not replace national doctrine. While derived from authoritative sources, it should not be considered to be an authoritative source.

The glossary does not support activities outside the scope of TTCP. Others are welcome to use the glossary on an “as provided” basis. Resource limitations prevent the ability of the Panel to commit support for more widespread usage.



4. Glossary Design

This section outlines the design of the TTCP Planning & Scheduling Glossary. We describe how the glossary will be organized and used. This includes how the content of the glossary will be controlled, and how it is accessed. We provide a description of what details each terminology entry can and should include, and how these details should be organized. This section also presents the design of the glossary as a whole, outlining features and services the tool is expected to provide. We finish section by illustrating how the glossary can be used effectively, and give an example of a typical entry.

Governance

PSWiki is a self-governing project run by its community, intended to reflect the consensus of its community of editors and users. As such it is primarily governed by the consensus of the community. Editorial decisions on PSWiki will be primarily made through consensus building in order to fairly reflect the perspective of the PSWiki user community, and avoid biased, restrictive, and unsourced definitions. Consensus will result as a natural and inherent product of editing. Once a change or addition is made to an entry, everyone who reads it has an opportunity to leave the page as it is or change it. When editors cannot reach agreement by editing, the process of finding a consensus is continued by polite discussion in the discussion section until consensus can be reached.

All definitions, examples, and other content added to PSWiki must include a reference or link to the source document. Source documents may only include official documents produced and endorsed by the governments of the respective coalition nations. Such documents may include doctrines, official dictionaries, planning and procedure documents, legal documents, documents specifying terms for joint operations, document regarding rules-of-engagement, etc. Sources may not include unofficial training or course materials, or documents produced commercially or by private contractors (not endorsed by a national government) in support of military or other governmental operations.

Any edit that is not disputed or reverted by another editor can be assumed to have consensus. Should that edit later be revised by another editor without dispute, it can be assumed that a new consensus has been reached. In this way PSWiki will gradually expand and improve over time without any special effort, adapting to fit the changing needs of its community. Where there is a dispute, often a simple rewording of the edit to make it more neutral or incorporate the



other editor's concerns. Clear communication in edit summaries can make this process easier. Editors will also have the option of reverting edits they disagree with. An editor who reverts an edit he or she disagrees with should specify the reason or part of the edit with which they disagree. This provides greater transparency for all concerned, and allows consensus to be determined through continued editing.

PSWiki will have an AC responsible for resolving disputes between editors that cannot be resolved through consensus building, removal of classified or personal information posted to PSWiki, establishing and modifying the policies and procedures for PSWiki and its content, and making all decisions regarding access to PSWiki to potential new users and user communities. The AC will consist of the members of TTCP C3I Panel on Dynamic Planning and Scheduling (TP-4). All decisions reached by the AC will be binding on the operation and use of the PSWiki, including content, tools, editors and users.

How is Content Validated? (Roles and Responsibilities)

- Reader --- any user who has access to PSWiki. Responsibilities include not abusing the use of PSWiki as a shared resource, and not disseminating any information found on PSWiki beyond the level for which its use has been approved.
- Editor --- all editors must be registered and granted editorial control of PSWiki. Editors are responsible for adding content, and providing updates to PSWiki, and achieving consensus through collaborating editing while striving to abide by the policies of PSWiki regarding avoiding bias, rigorously sourcing all entries, and through civil and cooperative discussion to resolve any disputes not resolved through editing.
- Arbitrator --- arbitrators responsible for resolving disputes between editors that cannot be resolved through consensus building, removal of classified or personal information posted to PSWiki, establishing and modifying the policies and procedures for PSWiki and its content, and making all decisions regarding access to PSWiki to potential new users and user communities. The Arbitration Committee will consist of the members of TTCP C3I Panel on Dynamic Planning and Scheduling (TP-4).
- Administrator --- administrators will be responsible for maintaining the PSWiki site, for backing up and restoring the site as needed, installing



software updates, facilitating access control, and attending to all other site administration needs.

Content

The glossary will be a repository of military operational terms and definition to serve two complementary purposes: *a)* to minimize and reduce misunderstanding and miscommunication regarding planning and scheduling among coalition operations, and *b)* to identify differences between P&S term definitions.

In order to facilitate communications and avoid misunderstandings, for every P&S term, the glossary has to capture the potentially different definitions provided by coalition nations. Some terms may even have more than one definition per operational domains (e.g., Air, Land or Navy). With every definition, the glossary should have a reference to an official source document to avoid inclusion of unofficial and non-military definition. The source reference also facilitates traceability of definitions in the future, especially in cases where the definition of a term changes. For every term, a common TTCP working definition will also be provided if possible.

In some cases, a concept may be referred to by different terms between coalition nations or may have different terms in different contexts. In order to keep the relation between these terms, for every term the glossary will maintain a list of *related terms* such as synonyms, hypernyms, hyponyms, etc. Additionally, in order to assist achieving a common understanding of the terms, every definition



of a term is recommended to be followed by at least one example that illustrates the application of the term in a military context.

The glossary will be populated with data from various sources, including military policy and doctrinal documents and military and governmental dictionaries and glossaries of terms, such as the U.S. DOD Dictionary of Military Terms¹ and the Government of Canada's Terminology and Linguistic Data Bank², also known as TERMIUM Plus. In order to facilitate collaboration with the academic community, the first versions of the glossary will not contain any sensitive information.

Access Control

We envision three types of users of the P&S glossary: *Readers*, *Contributors*, and *Moderators*.

- Readers can search for terms, read the available information for every term, and provide feedback for every term in a designated discussion section.
- Contributors can perform the activities of Readers, in addition to creating new entries in the glossary (addition of new terms) and modifying the existing definitions.

¹ http://www.dtic.mil/doctrine/dod_dictionary

² <http://www.termiumplus.gc.ca>



- Moderators can perform the activities of Contributors in addition to deleting (i.e., accepting or rejecting) entries from the glossary.

Since the first versions of the glossary will not include sensitive information, it would be desirable to have the role of Reader publicly available to the scientific and academic community. The role of Contributor will be limited to TTCP C3I TP2, TP3, and TP4 in addition to invited academic and industry partners.

The role of Moderator will be limited to TTCP C3I TP4 members or the person(s) providing the service. The Moderators have to identify criteria used to determine the acceptability of terminology for inclusion in the glossary.

A technical person from the organization that hosts the glossary, called the Admin, will provide administration of the glossary tool. The role of the Admin includes maintaining the availability of the service to its user community, managing access controls, and performing frequent backups.

Structure

After considering various structures for the P&S glossary content, this panel recommends the following structure for the glossary information.

The glossary will be a collection of *terms* with corresponding *descriptions*. Each description will be based on the following structure template:

Term(s): [e.g. Allocation]	
TTCP Working Definition: [e.g., allocation of resources to tasks...]	
Domain Specific Definitions: <table border="1"><tr><td>Joint:</td></tr></table>	Joint:
Joint:	



Nation-Specific Definitions

Air:

Nation-Specific Definitions

Land:

Nation-Specific Definitions

Navy:

Amphibious:

Nation-Specific Definitions

Above Water Warfare:

Nation-Specific Definitions

Cyber:

Nation-Specific Definitions

Related Terms:

[e.g. assignment]

Differences:

[optional notes on differences between definitions]



Nati
on-
Spec
ific
Defi

Comments and Discussions:

[open comments and discussions related to this term]

nitions will be a *collection* of definitions accompanied with one or more examples, acronym(s), sources, and related terms from the perspective of different coalition partners. Each definition will have the following structure:

Nation:

[either of *AUS*, *CAN*, *GBR*, *NZL*, *USA*, or *NATO*]

Definition:

[e.g., Translation of air apportionment decision into total numbers
of sorties by aircraft type available for each task.]

Example:

[to illustrate the application of the term]

Acronym:

[optional, if the term has an acronym]

Sources:

[e.g., JP-5-0]

See Also :

[a list of related terms, including synonyms, hyponyms, etc.]

Services Provided / Basic Functionality

The list of services below specifies the basic required functionality for the first version of the Planning and Scheduling glossary.



Basic Search [all users]

The ability to search for terms by their name is required. The search should return a list of all terms with the entered word included in their name.

Search with Advanced/Extended Options [future]

- Domain / Context

The ability to search all terms belonging to a specified domain (nation, service, etc) or belonging to a specified context is required.

Import/Export [contributor, administrator]

The ability to import terms from an electronic source (doctrine or website) is required. It is preferable that the import functionality be as automated as possible to reduce effort for the contributor or administrator. The time taken to develop this import service and its scope should be weighed against the time it would take to do the task manually.

The ability to export the terms into a human-readable copy is required (Microsoft Word / Adobe PDF), with the option to export the entire terms in the glossary or selected terms based on an advanced search.

Version Management [moderator, administrator]

For each term a history of versions is required to be stored in the system. This will facilitate audits on terms, and allow users to return to previous versions in-case mistakes are made.

Related Terms (Synonym, Acronym, Disambiguation) [future]

A future requirement is to include a feature which could highlight terms which have differences between domains. This could perhaps be an extension on the advanced search service.

Data Backup/Restore [administrator]

A data backup and restore functionality is required to reduce information loss in case of system failure. A backup schedule will need to be devised and implemented, as well as a plan on how long to keep backups. It is preferable that the backup functionality is automated to reduce the effort required by the administrator(s).



Visualization [future]

Future instantiations of PSWiki may include tools for visualizing terms and other information entered into PSWiki according to a particular taxonomy or other search parameters. For example, Figure 1 gives an example of the searching for the term “autonomous robotics” in Wikipedia. This visualization was achieved using the tool Wikipedia-roll.

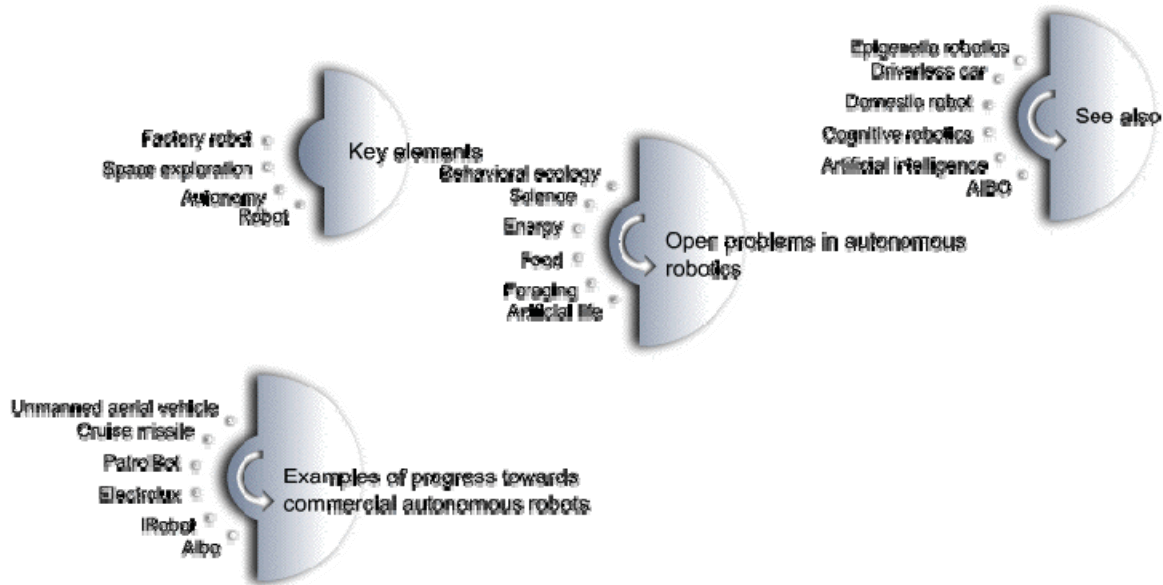
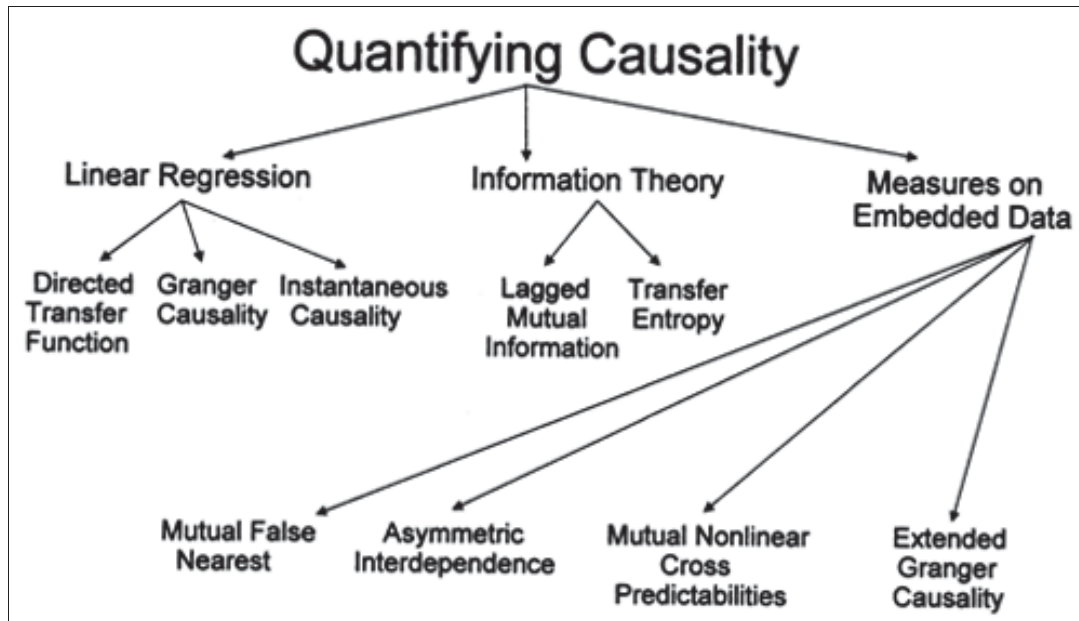


Fig. 1: Visual Taxonomy for term “Autonomous Robotics” from Wikipedia-Roll

Terms and other information may be presented in a hierarchical or tree-structured representation as shown in Fig. 2 below. In this example the term “Quantifying Causality” is shown in relation to other related Wikipedia entries.



A key focus of more fundamental on-going research is the development of concept maps that show the relationship between concepts in a graph structure. This graph structure may take the form of a tree, a hierarchy, or a directed or acyclic graph. Fig. 3 gives an example of a concept map for the term “Concept Maps”.

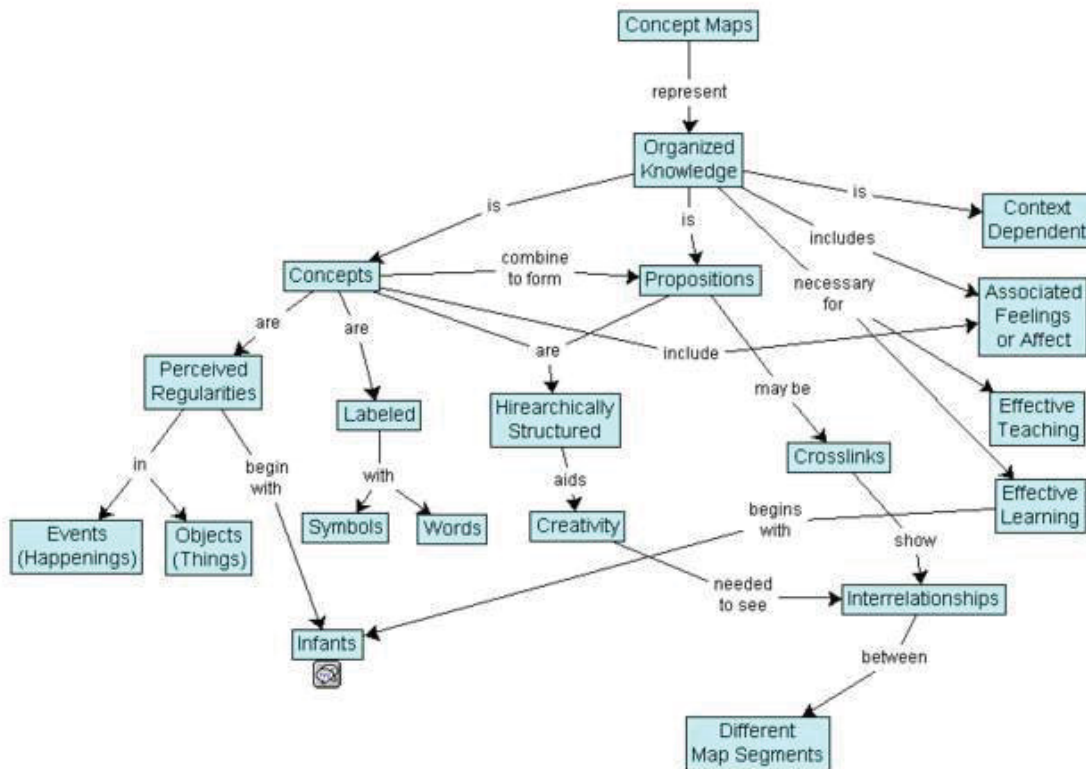


Fig. 3: Hierarchical Concept Map for term “Concept Maps”

Concept of Use

PSWiki is designed to provide a common repository of military operational planning and scheduling terms and definitions across the TTCP communities, to reduce miscommunication and misunderstandings in military operational planning and scheduling, and to identify differences between term definitions and usages. PSWiki is designed for quick knowledge exchange between members of its user community. Any authorized user can read, search, add, edit, and link entries. The user interface for PSWiki is designed to allow users to create and edit content using any Web browser. PSWiki supports hyperlinks and has simple text syntax for adding new entries and crosslinks between entries on the fly, as well as to source documents.

Illustrative Examples

Example 1: TERM : E-day

- TTCP Working Definition :
- Domain Specific Definitions :



- Joint :
 - (AUS) :
 - (CAN) :
 - Definition : The day on which an exercise commences
 - Example :
 - Acronym/**Symbol** :
 - Source : CFJP 5.0: Canadian Forces Joint Publication 5.0, B-GJ-005-500/FP-000, April 2008
 - See Also (synonym, related) : Designation of Days and Hours, D-day, E-day, G-day, K-day, M-day
 - (GBR) :
 - (NZL) :
 - (US) :
 - (NATO) :
 - Definition : The day on which a NATO exercise commences
 - Example :
 - Acronym :
 - Source : NATO GLOSSARY OF TERMS AND DEFINITIONS (ENGLISH AND FRENCH), AAP-6, 2010
 - See Also (synonym, related) : designation of days and hours, D-day; E-day; F-hour; G-day; G-hour; H-hour; K-day; K-hour; L-hour; M-day; P-hour; T-day; T-hour; Y-hour.
- Air :
- Land :
- Navy :
- Cyber :
- Related Terms : C-day, D-day, E-day, F-day, K-day, M-day, L-day, M-day, R-day, S-day, T-day, W-day
- Differences :
 - NATO, E-day is specific to NATO exercises, while in CAN this is not limited to NATO exercises
 - US do not use E-day
- Comments :



TERM : G-day

- TTCP Working Definition :
- Domain Specific Definitions :
 - Joint :
 - (AUS) :
 - (CAN) :
 - Definition : The day on which an order, normally national, is given to a deployed unit
 - Example :
 - Acronym/**Symbol** :
 - Source : CFJP 5.0: Canadian Forces Joint Publication 5.0, B-GJ-005-500/FP-000, April 2008
 - See Also (synonym, related) : Designation of Days and Hours, D-day, E-day, G-day, K-day, M-day
 - (GBR) :
 - (NZL) :
 - (US) :
 - (NATO) :
 - Definition : The day on which an order, normally national, is given to deploy a unit
 - Example :
 - Acronym :
 - Source : NATO GLOSSARY OF TERMS AND DEFINITIONS (ENGLISH AND FRENCH), AAP-6, 2010
 - See Also (synonym, related) : designation of days and hours, D-day; E-day; F-hour; G-day; G-hour; H-hour; K-day; K-hour; L-hour; M-day; P-hour; T-day; T-hour; Y-hour.
 - Air :
 - Land :
 - Navy :
 - Cyber :
- Related Terms : C-day, D-day, E-day, F-day, K-day, M-day, L-day, M-day, R-day, S-day, T-day, W-day
- Differences :
 - US do not use G-day
 - G-day does not exist for US. US use **C-day** for the day on which a deployment operation commences or is to commence, while CAN



and NATO use **G-day** for the day on which an order, normally national, is given to a deployed unit

- Comments :

TERM : F-hour

- TTCP Working Definition :
- Domain Specific Definitions :
 - Joint :
 - (AUS) :
 - (CAN) :
 - (GBR) :
 - (NZL) :
 - (US) :
 - Definition : The effective time of announcement by the Secretary of Defense to the Military Departments of a decision to mobilize Reserve units.
 - Example :
 - Acronym :
 - Source : Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02, (As Amended Through 31 October 2009)
 - See Also (synonym, related) :
 - (NATO) :
 - Definition : The time at which aviation operations beyond the forward line of own troops commence or are due to commence
 - Example :
 - Acronym :
 - Source : NATO GLOSSARY OF TERMS AND DEFINITIONS (ENGLISH AND FRENCH), AAP-6, 2010
 - See Also (synonym, related) : designation of days and hours, D-day; E-day; F-hour; G-day; G-hour; H-hour; K-day; K-hour; L-hour; M-day; P-hour; T-day; T-hour; Y-hour.
- Air :
- Land :



- Navy :
- Cyber :
- Related Terms : C-day, D-day, E-day, F-day, K-day, M-day, L-day, M-day, R-day, S-day, T-day, W-day
- Differences :
 - For US, **F-hour** is the effective time of announcement by the Secretary of Defense to the Military Departments of a decision to mobilize Reserve units; while for **NATO** it is the time at which aviation operations beyond the forward line of own troops commence or are due to commence
- Comments :

TERM : H-hour

- TTCP Working Definition :
- Domain Specific Definitions :
 - Joint :
 - (AUS) :
 - (CAN) :
 - Definition : The specific time at which an operation or exercise commences or is due to commence
 - Example :
 - Acronym/**Symbol** :
 - Source : CFJP 5.0: Canadian Forces Joint Publication 5.0, B-GJ-005-500/FP-000, April 2008
 - See Also (synonym, related) : Designation of Days and Hours, D-day, E-day, G-day, K-day, M-day
 - (GBR) :
 - (NZL) :
 - (US) :
 - Definition : The specific hour on D-day at which a particular operation commences
 - Example :
 - Acronym :
 - Source : Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02, (As Amended Through 31 October 2009)



- See Also (synonym, related) :
- (NATO) :
 - Definition :
 - The specific time at which an operation or exercise commences, or is due to commence (this term is used also as a reference for the designation of days/hours before or after the event).
 - The time at which the line of departure is or is due to be crossed by the leading element in an attack.
 - Example :
 - Acronym :
 - Source : NATO GLOSSARY OF TERMS AND DEFINITIONS (ENGLISH AND FRENCH), AAP-6, 2010
 - See Also (synonym, related) : designation of days and hours, D-day; E-day; F-hour; G-day; G-hour; H-hour; K-day; K-hour; L-hour; M-day; P-hour; T-day; T-hour; Y-hour.
- Air :
- Land :
 - (CAN) :
- Navy :
 - (US) amphibious operations:
 - Definition : the time the first assault elements are scheduled to touch down on the beach, or a landing zone, and in some cases the commencement of countermine breaching operations. (JP 3-02)
 - Example :
 - Acronym :
 - Source : Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02, (As Amended Through 31 October 2009)
 - See Also (synonym, related) :
 - (NATO) amphibious operations:
 - Definition : the time at which the first waterborne wave of an amphibious assault lands or is due to land on a beach



- Example :
- Acronym :
- Source : NATO GLOSSARY OF TERMS AND DEFINITIONS (ENGLISH AND FRENCH), AAP-6, 2010
- See Also (synonym, related) : D-day; E-day; F-hour; G-day; G-hour; H-hour; K-day; K-hour; L-hour; M-day; P-hour; T-day; T-hour; Y-hour.
 - Cyber :
- Related Terms : C-day, D-day, E-day, F-day, K-day, M-day, L-day, M-day, R-day, S-day, T-day, W-day
- Differences :
 - One of the NATO H-hour definition is not being used by CAN nor US, which is related to the time at which the line of departure is or is due to be crossed by the leading element in an attack
- Comments :

Category: Time Designation

TERMS: C-day, D-day, E-day, F-day, K-day, M-day, L-day, M-day, R-day, S-day, T-day, W-day

- TTCP Working Definition :
- Domain Specific Definitions :
 - Joint :
 - (AUS) :
 - (CAN) :
 - Definition :
 - **D-day**. The day on which an operation commences or is due to commence
 - **E-day**. The day on which an exercise commences
 - **G-day**. The day on which an order, normally national, is given to a deployed unit
 - **K-day**. The day on which a convoy system is introduced, or is due to be introduced, on any given convoy lane
 - **M-day**. The day on which mobilization commences or is due to commence
 - **H-hour**. The specific time at which an operation or exercise commences or is due to commence.
- Example :



- Acronym/Symbol :
- Source : CFJP 5.0: Canadian Forces Joint Publication 5.0, B-GJ-005-500/FP-000, April 2008
- See Also (synonym, related) : Designation of Days and Hours
- (GBR) :
- (NZL) :
- (US) :
 - Definition : C-, D-, M-days end at 2400 hours Universal Time (Zulu time) and are assumed to be 24 hours long for planning.) The Chairman of the Joint Chiefs of Staff normally coordinates the proposed date with the commanders of the appropriate unified and specified commands, as well as any recommended changes to C-day. L-hour will be established per plan, crisis, or theater of operations and will apply to both air and surface movements. Normally, L-hour will be established to allow C-day to be a 24-hour day.
 - **C-day.** The unnamed day on which a deployment operation commences or is to commence. The deployment may be movement of troops, cargo, weapon systems, or a combination of these elements using any or all types of transport. The letter “C” will be the only one used to denote the above.
 - **D-day.** The unnamed day on which a particular operation commences or is to commence. (JP 3-02)
 - **F-hour.** The effective time of announcement by the Secretary of Defense to the Military Departments of a decision to mobilize Reserve units.
 - **H-hour.**
 - The specific hour on D-day at which a particular operation commences.
 - **(amphibious operations).** For amphibious operations, the time the first assault elements are scheduled to touch



down on the beach, or a landing zone, and in some cases the commencement of countermine breaching operations. (JP 3-02)

- **L-hour.**
 - The specific hour on C-day at which a deployment operation commences or is to commence.
 - **(amphibious operations).** In amphibious operations, the time at which the first helicopter of the helicopter-borne assault wave touches down in the landing zone. (JP 3-02)
- **M-day.** The term used to designate the unnamed day on which full mobilization commences or is due to commence.
- **N-day.** The unnamed day an active duty unit is notified for deployment or redeployment.
- **R-day.** Redeployment day. The day on which redeployment of major combat, combat support, and combat service support forces begins in an operation.
- **S-day.** The day the President authorizes Selective Reserve callup (not more than 200,000)
- **T-day.** The effective day coincident with Presidential declaration of national emergency and authorization of partial mobilization (not more than 1,000,000 personnel exclusive of the 200,000 callup).
- **W-day.** Declared by the President, W-day is associated with an adversary decision to prepare for war (unambiguous strategic warning).
 - Example :
 - Acronym :
 - Source :
 - See Also (synonym, related) : times
- (NATO) :



- Definition :
 - **C-day** : The day on which deployment for an operation commences or is due to commence.
 - **D-day**: The day on which an operation, whether hostilities or any other operation, commences or is due to commence
 - **E-day**: The day on which a NATO exercise commences
 - **F-hour**: The time at which aviation operations beyond the forward line of own troops commence or are due to commence
 - **G-day**: The day on which an order, normally national, is given to deploy a unit
 - **G-hour**: The time at which an order is given, or is due to be given, to deploy a unit.
 - **H-hour**:
 - The specific time at which an operation or exercise commences, or is due to commence (this term is used also as a reference for the designation of days/hours before or after the event).
 - The time at which the line of departure is or is due to be crossed by the leading element in an attack.
 - In amphibious operations, the time at which the first waterborne wave of an amphibious assault lands or is due to land on a beach.
 - **L-hour**: In amphibious or airmobile operations, the time at which the first helicopter of a heliborne assault wave touches down or is due to touch down in the landing zone.
 - **M-day**: The day on which mobilization commences or is due to commence.
 - **T-day**: The day on which transfer of authority takes place or is due to take place.
 - **T-hour**: The time at which transfer of authority takes place or is due to take place




- **Y-hour:** In airmobile operations, the time at which the first helicopter in the first wave departs or is due to depart the pick-up point
- Example :
- Acronym :
- Source : NATO GLOSSARY OF TERMS AND DEFINITIONS (ENGLISH AND FRENCH), AAP-6, 2010
- See Also (synonym, related) : designation of days and hours, D-day; E-day; F-hour; G-day; G-hour; H-hour; K-day; K-hour; L-hour; M-day; P-hour; T-day; T-hour; Y-hour.
- Air :
 - Land :
 - (CAN) :
 - Navy :
 - Cyber :
- Related Terms : designation of days and hours
- Differences :
 - For CAN and NATO, **G-day** is the day on which an order, normally national, is given to a deployed unit; while US use **C-day** for the day on which a deployment operation commences or is to commence.
 - G-day does not exist for US
 - NATO, E-day is specific to NATO exercises, while in CAN it is for exercises
 - K-day, only exists for CAN.
 - CAN does not have F-day, F-hour, M-Day, T-Day, T-hour
 - F-Day, H-hour, , N-Day, R-Day, S-Day, W-Day are specific to US
 - For US, **F-hour** is the effective time of announcement by the Secretary of Defense to the Military Departments of a decision to mobilize Reserve units; while for **NATO** it is the time at which aviation operations beyond the forward line of own troops commence or are due to commence
 - **Y-hour** is specific to NATO
 -
- Comments :



TERM : Neutralize

- TTCP Working Definition :
- Domain Specific Definitions :
 - Joint :
 - (AUS) :
 - (CAN) :
 - (GBR) :
 - (NZL) :
 - (US) :
 - Definition :
 - 1. As pertains to military operations, to render ineffective or unusable.
 - 2. To render enemy personnel or material incapable of interfering with a particular operation.
 - 3. To render safe mines, bombs, missiles, and booby traps.
 - 4. To make harmless anything contaminated with a chemical agent.
 - Example :
 - Acronym :
 - Source : Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02, (As Amended Through 31 October 2009)
 - See Also (synonym, related) :
 - (NATO) :
 - Definition :
 - neutralization: In mine warfare, a mine is said to be neutralized when it has been rendered, by external means, incapable of firing on passage of a target, although it may remain dangerous to handle
 - neutralization fire: Fire delivered to render a target temporarily ineffective or unusable
 - Example :



- Acronym :
- Source : AAP-6 2010
- See Also (synonym, related) :
- Air :
- Land :
 - (CAN) :
 - Definition : To neutralize is an effect to render an enemy element temporarily incapable of interfering with a particular operation
 - Example : 
 - Acronym/Symbol :
 - Source : B-GL-331-002/FP-001, STAFF DUTIES FOR LAND OPERATIONS, 2008
 - See Also (synonym, related) :
 - (CAN) : Firepower effect
 - Definition : Neutralization fire renders the target ineffective or unusable for a temporary period. Neutralization fire results in enemy personnel or material becoming incapable of interfering with an operation or course of action
 - Example :
 - Acronym :
 - Source : B-GL-300-007/FP-001 Firepower
 - See Also (synonym, related) :
 -
 - (US) :
 - Definition :
 - As pertains to military operations, to render ineffective or unusable
 - To render safe mines, bombs, missiles, and boobytraps
 - To make harmless anything contaminated with a chemical agent
 - Example :
 - Acronym :
 - Source : FM 101-5-1 [US] Operational Terms and Graphics (1997)
 - See Also (synonym, related) :

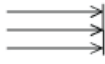


- Navy :
- Cyber :
- Related Terms :
- Differences : CAN definition constraints to render an enemy element temporarily incapable of interfering with a particular operation while US does not have this constraint in one of his definitions
- Comments :

TERM : Clear

- TTCP Working Definition :
- Domain Specific Definitions :
 - Joint :
 - (AUS) :
 - (CAN) :
 - (GBR) :
 - (NZL) :
 - (US) :
 - Definition :
 - 1. To approve or authorize, or to obtain approval or authorization for: a. a person or persons with regard to their actions, movements, duties, etc.; b. an object or group of objects, as equipment or supplies, with regard to quality, quantity, purpose, movement, disposition, etc.; and c. a request, with regard to correctness of form, validity, etc.
 - 2. To give one or more aircraft a clearance.
 - 3. To give a person a security clearance.
 - 4. To fly over an obstacle without touching it.
 - 5. To pass a designated point, line, or object.
The end of a column must pass the designated feature before the latter is cleared.
 - 6. a. To operate a gun so as to unload it or make certain no ammunition remains; and b. to free a gun of stoppages.
 - 7. To clear an engine; to open the throttle of an idling engine to free it from carbon.



- 8. To clear the air to gain either temporary or permanent air superiority or control in a given sector.
 - Example :
 - Acronym :
 - Source : Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02, (As Amended Through 31 October 2009)
 - See Also (synonym, related) :
- (NATO) :
- Air :
- Land :
 - (CAN) :
 - Definition : To clear is an effect to remove all enemy forces and eliminate organized resistance within an assigned area. The measure of success of this task is the absence of enemy interference with friendly forces.
 - Example :
 - Acronym/Symbol : 
 - Source : B-GL-331-002/FP-001, STAFF DUTIES FOR LAND OPERATIONS, 2008
 - See Also (synonym, related) :
 - (CAN) :
 - Definition : To ensure an area is free of enemy direct fire interference and artificial obstacles.
 - Example :
 - Acronym :
 - Source : B-GL-303-002/JX-Z03 Volume 2, Staff Duties in the Field, Supplement 3, Army Vocabulary (1991)
 - See Also (synonym, related) :
 - (CAN) : Damage Assessment and Rear Area Damage Control
 - Definition : The total elimination or neutralization of an obstacle that is usually performed by follow-on engineers and is not done under fire.
 - Example :
 - Acronym :



- Source : B-GL-361-001/FP-001 Land Force Engineer Operations - Volume 1
- See Also (synonym, related) :
 - (US) :
 - Definition : A tactical task to remove all enemy forces and eliminate organized resistance in an assigned zone, area, or location by destroying, capturing, or forcing the withdrawal of enemy forces such that they cannot interfere with the friendly unit's ability to accomplish its mission
 - Example :
 - Acronym :
 - Source : FM 101-5-1 Operational Terms and Graphics
 - See Also (synonym, related) :
 - Navy :
 - Cyber :
- Related Terms :
- Differences : US can use this term to fly over an obstacle without touching it or to gain either temporary or permanent air superiority or control in a given sector. For CAN, it is to remove all enemy forces and eliminate organized resistance within an assigned area.
- Comments :

TERM : Center of Gravity (US), Centre of Gravity (CAN, GBR)

- TTCP Working Definition :
- Domain Specific Definitions :
 - Joint :
 - (AUS) :
 - (CAN) :
 - Definition : The COG is that characteristic, capability, or locality from which a military force, nation or alliance derives its freedom of action, physical strength, or will to fight. (AAP-6)
 - Example :
 - Acronym : COG
 - Source : CFJP 5.0: Canadian Forces Joint Publication 5.0, B-GJ-005-500/FP-000, April 2008
 - See Also (synonym, related) :




- (GBR) :
 - Definition : Characteristics, capabilities, or localities from which a nation, an alliance, a military force or other grouping derives its freedom of action, physical strength, or will to fight. (AAP-6)
 - Example :
 - Acronym :
 - Source :
 - See Also (synonym, related) :
- (NZL) :
- (US) :
 - Definition : The source of power that provides moral or physical strength, freedom of action, or will to act. (JP 3-0)
 - Example :
 - Acronym : COG
 - Source : Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02, (As Amended Through 31 October 2009)
 - See Also (synonym, related) : decisive point
-
- (NATO) :
 - Definition : The COG is that characteristic, capability, or locality from which a military force, nation or alliance derives its freedom of action, physical strength, or will to fight. (AAP-6)
 - Example :
 - Acronym : COG
 - Source : NATO GLOSSARY OF TERMS AND DEFINITIONS (ENGLISH AND FRENCH), AAP-6, 2010
 - See Also (synonym, related) :
 - Air :
 - Land :
 - Navy :
 - Cyber :
- Related Terms :
- Differences : Spelling
- Comments :



TERM : Secure

- TTCP Working Definition :
- Domain Specific Definitions :
 - Joint :
 - (AUS) :
 - (CAN) :
 - (GBR) :
 - (NZL) :
 - (US) :
 - Definition : In an operational context, to gain possession of a position or terrain feature, with or without force, and to make such disposition as will prevent, as far as possible, its destruction or loss by enemy action.
 - Example :
 - Acronym :
 - Source : Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02, (As Amended Through 31 October 2009)
 - See Also (synonym, related) : denial measure
 - (NATO) :
 - Definition : In an operational context, to gain possession of a position or terrain feature, with or without force, and to make such disposition as will prevent, as far as possible, its destruction or loss by enemy action..
 - Example :
 - Acronym :
 - Source :
 - NATO GLOSSARY OF TERMS AND DEFINITIONS (ENGLISH AND FRENCH), AAP-6, 2010
 - STANAG 2287
 - See Also (synonym, related) : denial measure
- Air :
- Land :



- (CAN)
 - Definition : 1) Army - A tactical task to gain possession of a position or terrain feature, with or without force, and to deploy in a manner which prevents its destruction or loss to enemy action.
 - Example :
 - Acronym/Symbol : 
 - Source : AAP 6A Military Symbols for Land Based Operations p. 268, B-GL-331-002/FP-001, STAFF DUTIES FOR LAND OPERATIONS, 2008
 - See Also (synonym, related) : denial measure
- (US)
 - Definition : US Army adds a very useful supplemental to definition (1) in that: The attacking [securing] force may or may not have to physically occupy the area.
 - Example :
 - Acronym :
 - Source : FM 101-5-1 [US] Operational Terms and Graphics, p. 1-138
 - See Also (synonym, related) :
 - Navy :
 - Cyber :
 - Related Terms :
 - Differences : US Army adds a very useful supplemental to definition (1) in that: The attacking [securing] force may or may not have to physically occupy the area.
 - Comments : analysis done B-GL-331-002/FP-001, STAFF DUTIES FOR LAND OPERATIONS, 2008

TERM : Phase

- TTCP Working Definition :
- Domain Specific Definitions :
 - Joint :
 - (AUS) :
 - (CAN) :



- Definition : All CF operations are conducted in five (5) phases. These phases are: warning, preparation, deployment, employment and redeployment
- Example : warning, preparation, deployment, employment and redeployment
- Acronym :
- Source : CFJP 5.0: Canadian Forces Joint Publication 5.0, B-GJ-005-500/FP-000, April 2008; B-GG-005-004
- See Also (synonym, related) : Phasing
- (GBR) :
- (NZL) :
- (US) :
 - Definition : In joint operation planning, a definitive stage of an operation or campaign during which a large portion of the forces and capabilities are involved in similar or mutually supporting activities for a common purpose. (JP 5-0)
 - Acronym :
 - Source : Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02, (As Amended Through 31 October 2009)
 - See Also (synonym, related) :
- (NATO) :
 - Definition : Phases represent distinct stages in the progress of the operation leading to the attainment of specific conditions or effects at decisive points required for subsequent stages and ultimately the successful accomplishment of the overall objective. Phases are sequential but may overlap and may be contingent on the successful completion of a preceding phase. This should be clearly recognised in the operations design. The commander may designate a main effort in each phase. However, the aim in phasing an operation or campaign must be to maintain continuity and tempo and to avoid unnecessary operational pauses
 - Example :
 - Acronym :
 - Source : COPD-Trial version Feb 2010



- See Also (synonym, related) :
- Air :
 - (US)
 - Definition :
 - Example : The six phases of the MAGTF(Marine air-ground task force) air tasking cycle are command aviation guidance, target/air support mission development, allocation and allotment, tasking, force execution, and combat assessment. (The parallel six-phase joint air tasking cycle is described in JP 3-56.1.) (proposed definition for MCRP 5-12C)
 - Acronym :
 - Source : U.S. Marine Corps, Aviation Operations, MCWP 3-2, 9 May 2000
 - See Also (synonym, related) :
- Land :
- Navy :
- Cyber :
- Related Terms :
- Differences :
- Comments :

TERM :

- TTCP Working Definition :
- Domain Specific Definitions :
 - Joint :
 - (AUS) :
 - (CAN) :
 - Definition :
 - Example :
 - Acronym/Symbol :
 - Source **(Page No)** :
 - See Also (synonym, related) :
 - (GBR) :
 - (NZL) :
 - (US) :
 - Definition :
 - Example :
 - Acronym :



- Source (**Page No**) :
- See Also (synonym, related) :
- (NATO) :
 - Definition :
 - Example :
 - Acronym :
 - Source (**Page No**) :
 - See Also (synonym, related) :
- Air :
- Land :
 - (CAN) :
 - Definition :
 - Example :
 - Acronym :
 - Source (**Page No**) :
 - See Also (synonym, related) :
- Navy :
 - Amphibious :
 - (AUS) :
 - (CAN) :
 - (GBR) :
 - (NZL) :
 - (US) :
 - (NATO) :
 - Above Water Warfare :
- Cyber :
- Related Terms :
- Differences :
- Comments :



5. Implementation Guide

In this section, technical issues related to the implementation of the TTCP Planning & Scheduling Glossary are discussed. We describe existing applications that could be used to build the glossary and provide its functionality. Also outlined here are the duties required of any organization that accepts responsibility for maintaining the technology side of this endeavour. We also present useful source material and a timetable for work on the glossary. Altogether, this information is intended to act as a guide in the actualization of the glossary tool.

Platform

The group brainstormed suitable existing tools that would underlie, or facilitate the development of, the P&S Glossary. These are described below.

Wiki

Wikis are collaboration platforms, which allow participating users to read, create and edit content distributed over multiple pages. As such, wikis facilitate collaborative editing of shared documents, and they typically manage the editing history of a document.

There are currently 126 different implementations of wikis listed on <http://www.wikimatrix.org>. This site also provides comparison charts between different implementations. Some of the criteria along which different implementations may be distinguished are:

- Dedicated wiki implementations vs. wiki add-ons to other content management systems and collaboration platforms
- Open-source vs. commercial implementations
- The underlying operating system, web server and data storage/access layers. Most wikis work best on the LAMP stack, consisting of the Linux OS, Apache web server, MySQL database and Perl, PHP or Python as the implementation language. But they usually allow replacing some or all of these components by others, e.g. Windows, IIS, PostgreSQL.



- Target community: world-wide user community, special-interest groups, business Intranet.
- Access restrictions supported: by user/by group; by page/group of pages/wiki-wide; full access/read-only/no access.
- support for multiple languages

It was impossible for the group to exhaustively compare all existing wikis. But we closely considered two very common implementations: TWiki and Wikimedia.

Wikimedia underlies the arguably largest and best-known wiki: Wikipedia, the world-wide online encyclopedia. Wikipedia content appears highly structured and annotated. However, this is due to its strong community support and users' dedication to maintaining its content well-structured and up-to-date.

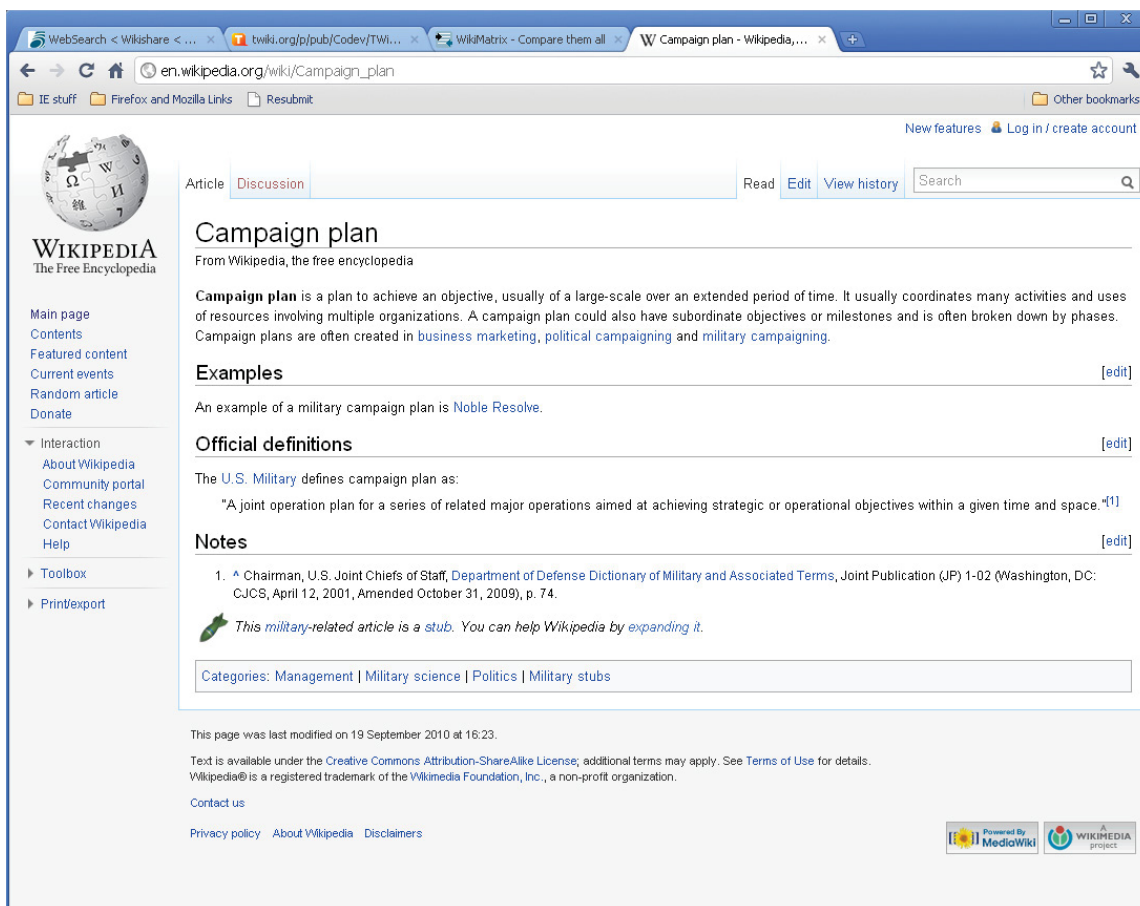


Fig. 3: Wikipedia



A somewhat lesser known wiki based on Wikimedia is Wiktionary. Here the emphasis is not on a word's meaning, but rather its use in the language, its etymology, and translations into other languages.

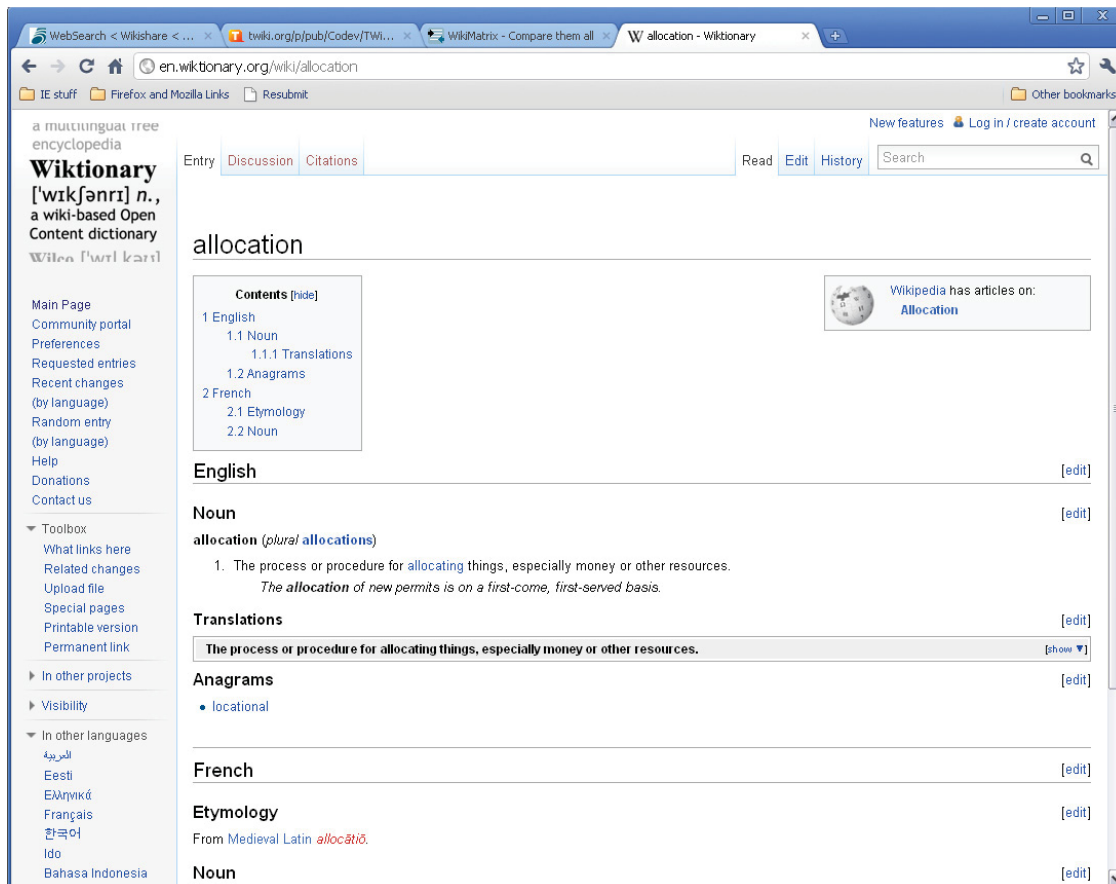


Fig. 4: Wiktionary

MediaWiki's features

- Openness to users around the world, who can access and edit most content
- Free-form editing (The apparent structure in Wikipedia and Wiktionary is mostly the result of self-imposed discipline by the community, recognizing that entries should look similar.)
- Ease of use

TWiki, on the other hand, was conceived as a wiki for Enterprise applications, where the following features are important:



- a mix of different kinds of structured content, as well as free-form content
- different levels of access permissions for internal employees, collaborators, customers, and external guests. This can be done on different levels of granularity: by page, by web (group of pages) or wiki-wide. A user, or group of users can be permitted to modify, read (only), or denied access to pages and documents
- Support for different user groups' needs through plugins, providing e.g. calendars, daytimers, discussion forums
- Support for file attachments of any format
- integration with an existing corporate information technology landscape, e.g. SharePoint, JIRA, Bugzilla
- distributed roles: users vs. content providers vs. system administrators
- ease of use.

System Architecture Diagram of Twiki Enterprise Agility Platform

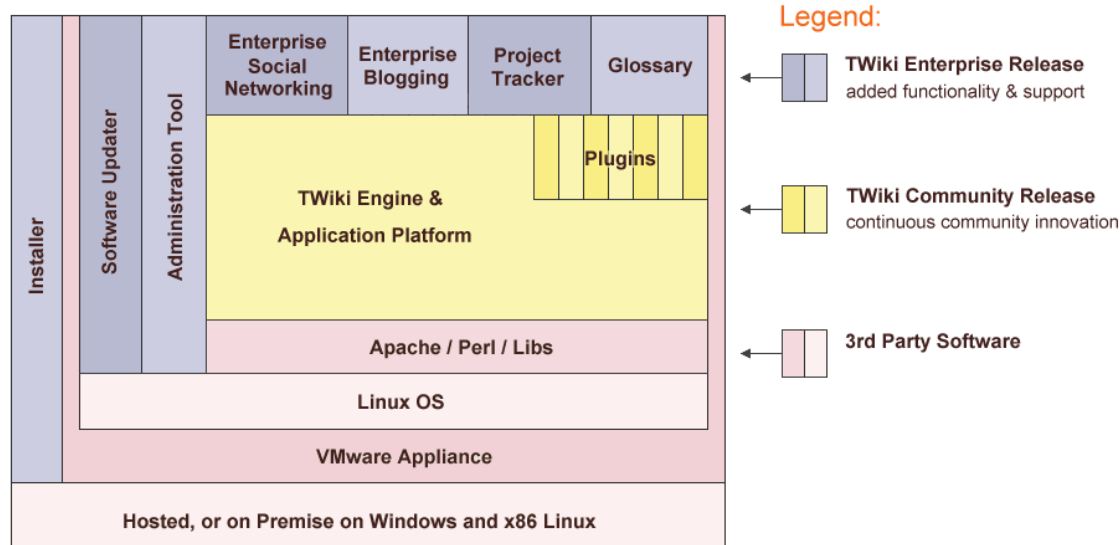


Fig. 5: Twiki Enterprise Agility Platform System Architecture

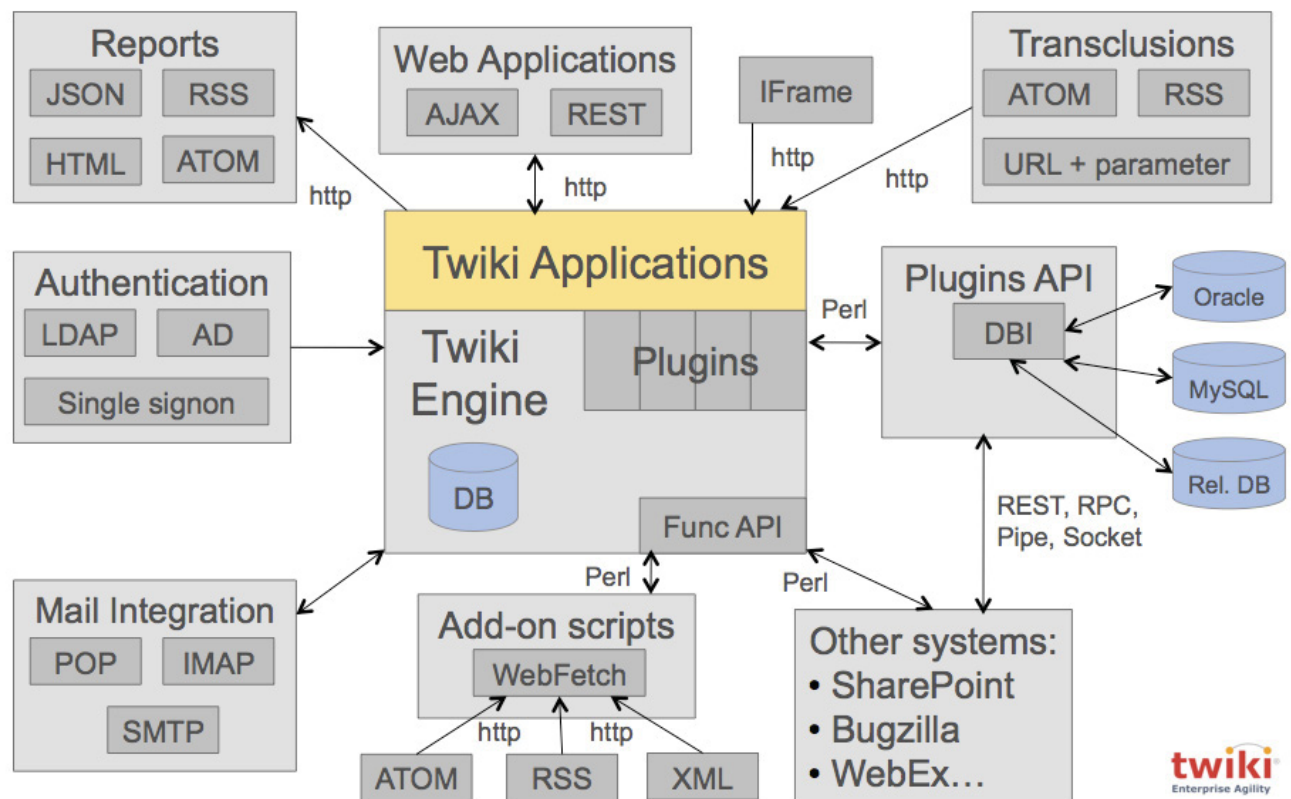


Figure 6 shows a TWiki page on a corporate wiki site, which was created for a collaborative project in which administrators, internal users, customers, and university students jointly contribute content.

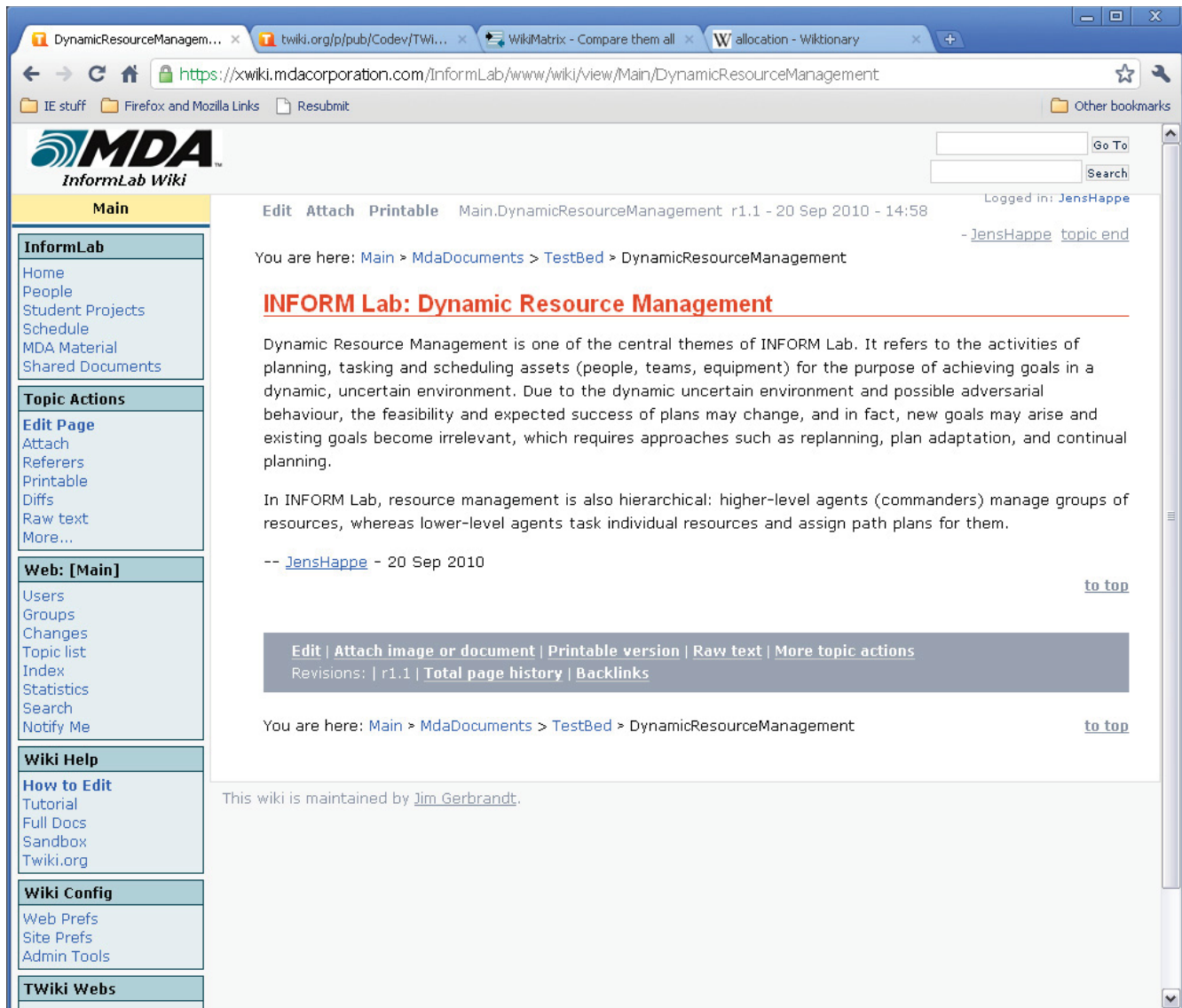


Fig. 7: InformLab Wiki Free Form Display

Figure 7 shows how the same page can be edited in free form. Note that, unlike in plain HTML, very little markup is necessary to give the page its appearance; this markup is intuitive and easy to learn.

Alternatively, if it is desired that a group of pages follow the same template, it is possible to create a form-based interface, into which a contributor can input the different sections of a document, e.g. a term, its meaning, synonyms, related terms. The headers, as well as the formatting of the different sections, would be automatically added according to a template.



WordNet

WordNet (<http://wordnet.princeton.edu/>) is a large lexical database of the English language. It offers a rich set of links between related words, along the following relationships: hypernyms (more general terms), hyponym (more specific terms), synonym, derivationally related form (e.g. the verb form of a noun). The web-based GUI, shown in Figure 8, shows a text field in which the user enters a term to search. All existing definitions of a word are shown on one page. All related words are shown in a tree structure, grouped by relationship type. Since WordNet is primarily a lexicon and not a glossary, the word's meanings are usually brief. Some meanings are presented along with examples.

The database itself can be downloaded and used in other tools. Editing the lexicon requires making direct changes to the database; there is no user interface for this.



Fig. 8: WordNet

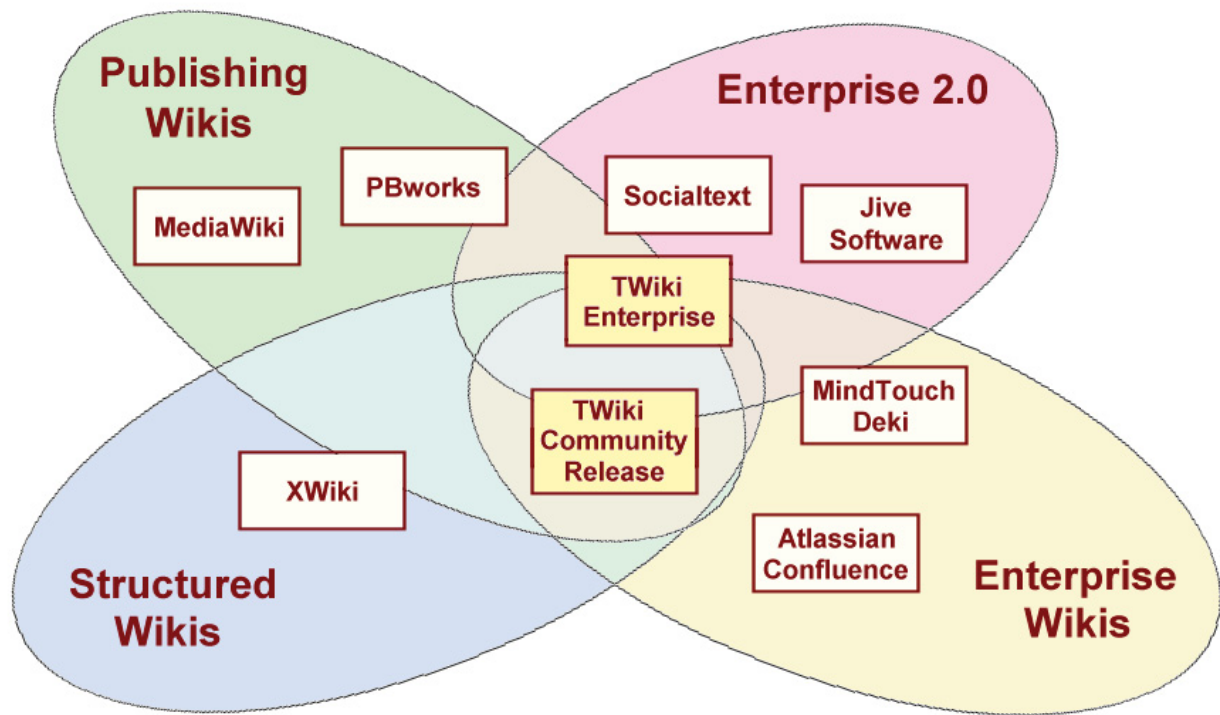


Fig. 9: The Wiki Universe

Example of Implementation

To demonstrate the feasibility of implementing a glossary and populating it with terms, the group considered the US DoD Dictionary of Military and Associated Terms. This dictionary is available in PDF format. Although manually created and edited, it is highly and consistently structured. Each term occupies one paragraph; the term and its meaning are separated by a dash (—); synonyms and acronyms are consistently preceded by the words “See also” and “Also called”. If a word has multiple meanings, the meanings are marked up by “1.”, “2.”, etc. This allowed us to write a Perl script that would take the entire dictionary text as input, split the terms into separate files, and marking up the acronyms, synonyms and related terms. The output of the script is a set of plain HTML files, one per term, and an index containing all the terms. Together, these constitute a prototype glossary of terms.



cell — A subordinate organization formed around a specific process, capability, or activity within a designated larger organization of a joint force commander's headquarters. A cell usually is part of both a functional and traditional staff structures. (JP 3-33)

center — An enduring functional organization, with a supporting staff, designed to perform a joint function within a joint force commander's headquarters. (JP 3-33)

center of burst — See **mean point of impact**.

center of gravity — The source of power that provides moral or physical strength, freedom of action, or will to act. Also called **COG**. See also **decisive point**. (JP 3-0)

centigray — A unit of absorbed dose of radiation (one centigray equals one rad). (JP 3-11)

JP 1-02

65

As Amended Through 31 July 2010

central control officer — The officer designated by the amphibious task force commander for the overall coordination of the waterborne ship-to-shore movement. The central control officer is embarked in the central control ship. Also called **CCO**. (JP 3-02)

centralized control — 1. In air defense, the control mode whereby a higher echelon makes direct target assignments to fire units. 2. In joint air operations, placing within one commander the responsibility and authority for planning, directing, and coordinating a military operation or group/category of operations. See also **decentralized control**. (JP 3-30)



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IE stuff Firefox and Mozilla Links Resubmit Other bookmarks

DOD Glossary of Terms

[abort](#)
[absolute altimeter](#)
[absolute filter](#)
[absolute height](#)
[acceptability](#)
[access to classified information](#)
[accompanying supplies](#)
[accountability](#)
[accuracy of fire](#)
[accuracy of information](#)
[acoustical surveillance](#)
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centralized control

Definition

Definition 1

In air defense, the control mode whereby a higher echelon makes direct target assignments to fire units.

Definition 2

In joint air operations, placing within one commander the responsibility and authority for planning, directing, and coordinating a military operation or group/category of operations. (JP 3-30)

See Also:

[decentralized control](#)



This prototype demonstrates that it is feasible to automate the creation of content from existing doctrines and other documents, provided these documents have a consistent text structure, allowing a script to recognize terms, meanings, multiple definitions, and related terms. Although the prototype uses plain HTML and simple header tags to mark up text, it is not difficult to modify the script so that it will produce wiki pages instead.

Some manual editing or fine-tuning of the script will be necessary, to resolve the occasional inconsistency. (For instance, a few terms in the DoD dictionary have a related term incorrectly marked up by the phrase “Also called”, which caused the script to mark it up as an acronym, rather than a related term.) Modifications of the script are possible to create entries from other glossaries, e.g. the NATO AAP-6. The entries from different source should then be collated, so that each term corresponds to exactly one page showing all definitions of that term according to the different documents. Finally, it is advisable to remove terms not related to the planning and scheduling domain, to keep the glossary concise and reduce the manual effort needed to maintain it.

Hosting Responsibilities

A distributed and collaborative knowledge based system for the coalition planning and glossary requires a set of local actions and resources. Any nation that will volunteer to host the P&S knowledge based system should sign for the provision of the following minimum services:

- Host the system server on a local and protected hardware accessible through internet;
- Provide system administration and basic system maintenance and upgrade duties;
- Backup the system database and support recovery of the data in case of crash or any other problem;
- Administrate user’s access and privileges.

Source Material

Information used to populate the glossary shall originate always from a recognized and authoritative source be it national, NATO, or international agreement. Any information relevant to a single domain (for example, The



United States) cannot overwrite information of another domain, nor, can its information be overwritten by another domain. For nations, the recognized authority to make changes to national information shall rest with the national representative to TP4 or his/her delegated representative. For NATO, the recognized authority to make changes to NATO information shall rest with the chairman of TP4 or his designated national representative. Changes to information controlled by other groups shall occur as determined by the operating guidelines established by TP4.

Prescribed Method of Populating

The Panel defines “population” of the glossary to be the inclusion of a new glossary term into the knowledge base where none existed. Due to the potential, vast amount of information that the glossary may maintain, it is likely that no one group or individual would be charged with the task. Whenever possible, contributors should use electronic means of scanning and import as a way to populate the glossary.

Maintaining Content

The Panel defines “maintenance” of the glossary to be the update of an existing glossary term, in whole or in part. For convenience, users who are designated to be contributors may update an existing glossary term; however, such changes need to be highlighted in some manner to indicate that they have not been reviewed and accepted. Once a moderator reviews and approves changes to glossary terms, those changes become the current authorized version of the term.

Timetable

The development of the TTCP P&S Glossary will follow a spiral approach. The following milestones are proposed as guidance for the development of the implementation plan:

Milestone	OPI	Date
Write-up of the design document	Don Sofge	December 2010
Development of a proof of concept	Canada	January 2011



Milestone	OPI	Date
Validation of the proof of concept	All	Annual Meeting
Consultation with other TP	All	Annual Meeting
Drafting of BN to the C3I group seeking guidance and support	TTCP C3I TP4 Chair	April 2011
Drafting of an implementation plan	All	Summer 2011
Implementation	TBD	Fall 2011

6. Conclusion

This document outlines the design and implementation of a tool that would act as a resource to allow selected personnel in coalition countries to efficiently and effectively investigate the definitions of terminology across a variety of contexts of interest. The glossary will also provide a venue for the discussion and illustration of differences in meaning. It is designed to assist in the development of official definitions for coalition use. Eventually, it is hoped that this glossary will be a tool to reduce misunderstanding and assist in planning and scheduling for coalition forces working with allied organizations.

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This document outlines the design and implementation of a tool that would help elucidate the differences in commonly used planning and scheduling terminology.

Ce document décrit la conception et la mise en œuvre d'un outil qui aiderait à élucider les différences dans la terminologie de planification et d'ordonnancement communément utilisée.

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TTCP; The Technical Cooperation Program; glossary; planning and scheduling; terms; knowledge-based; glossary support system; workshop; military; North Atlantis Scenario; planning domains; levels of planning and scheduling; planning descriptors; organization; roles; responsibilities; synchronization matrix; op plan; contingency plan; frag order; tasking order; C2; PSWiki; robots; artificial intelligence; autonomous robotics; quantifying causality; NATO; Wiktionary

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