



Implementing IPSV to your own advantage

Contents

- 1 Introduction 2
- 2 Why implement IPSV: What can you use it for?..... 3
 - 2.1 Compliance 3
 - 2.2 Find your own information 3
 - 2.3 Interoperability 3
 - 2.4 Share information resources with others 4
 - 2.5 Drive news feeds 4
 - 2.6 Build a website A-Z directory 4
 - 2.7 Interoperability for users of IPSV Abridged 4
 - 2.8 What is IPSV not for? 5
- 3 Adaptation for local needs 5
- 4 Where to apply IPSV 6
- 5 Planning the workflow 6
- 6 Implementing updates 7
- 7 References and links to IPSV documentation 7
 - 7.1 Other standards and guidance 8

Revision history of this Guide

Revision date	Previous revision date	Summary of changes
2006-03-31		First issue
2006-08-29	2006-03-31	Updated to reflect the release of e-GMS Version 3.1

Metadata

Coverage.spatial	UK
Creator	Stella Dextre Clarke, Consultant
Date.issued	2006-03-31
Date.modified	2006-08-29
Description	Hints to help you get the most out of IPSV (Integrated Public Sector Vocabulary), while complying with the e-GMS. Especially useful for local authorities.
Format	Text
Language	eng
Publisher	Porism Limited, London, SW9 8BJ info@porism.com
Rights.copyright	Crown copyright. This document may be used and copied without payment or licence for research, private study or for internal circulation within an organisation. This is subject to the material being reproduced accurately and not used in a misleading context. The source and copyright status must be acknowledged in any copy of whole or part of the document. Any other proposed use of the document requires a copyright licence, which is available from www.opsi.gov.uk
Status	Version 1.1. For publication
Subject	Controlled vocabularies; Information management; Implementation; Metadata
Title	Implementing IPSV to your own advantage
Type	Instructional

1 Introduction

The Integrated Public Sector Vocabulary (IPSV) is a structured list of terms for the Subject metadata of public sector resources. Use of IPSV is part of the compliance requirements for the e-Government Metadata Standard (e-GMS). It is also mandated by the Department for Communities and Local Government (DCLG) (formerly the Office of the Deputy Prime Minister) for use by local authorities.

The IPSV terms may be used to improve retrieval of information resources from websites, intranets, and any other collection. Website directories need not follow the IPSV structure exactly, but are easy to populate and maintain when based on mappings from IPSV terms in the metadata of resources.

IPSV is governed by a Board with representatives from the e-Government Unit (eGU), Department for Communities and Local Government (DCLG), esd-toolkit, the executive authorities in Wales, Scotland and Northern Ireland, the National Archives (TNA) and the Office of Public Sector Information (OPSI)¹, local government and the trade association Intellect. IPSV is published online, with a navigable/searchable tree structure and a range of downloadable formats, on the esd-toolkit's standards site, at <http://www.esd.org.uk/standards/ipsv/>.

¹ It is anticipated that OPSI will merge with TNA in October 2006

2 Why implement IPSV: What can you use it for?

Before you do anything else, clarify your objectives. Generally, taxonomy use has implications for colleagues in different parts of the organisation. It is best to involve everyone whose work will be affected by IPSV implementation, and agree objectives, strategy and workplan. What are you trying to achieve?

2.1 Compliance

Use of IPSV is needed to comply with the e-GMS, which is part of the e-Government Interoperability Framework (e-GIF). The e-GMS applies to every document or collection of documents that you enter into electronic systems such as your website, records management system or intranet. Each item must have metadata assigned to it, including at least one preferred term from IPSV that is relevant to the item in question, among the Subject metadata. (Prior to e-GMS version 3.1, which was issued in 2006, the mandatory encoding scheme for Subject was the GCL rather than IPSV.)

While compliance may be important for meeting targets and funding criteria, it should not be your only reason for implementing IPSV. **The real pay-off from the investment in compliant systems comes when you realise some of the other benefits suggested next.**

2.2 Find your own information

One of the main functions of metadata is to help people find things. Some of the metadata help with retrieving documents written by a particular author, or within a given date range. IPSV metadata are intended to support searches for items that are about a particular subject. The author of a page that is about organised activities for children in the summer holidays could use words such as “summer-time activities”, “out of term-time”, “play-schemes” “play programme” “holiday activity series” “summer playscheme” “kids out of school”, etc., and the person searching might have to think of all the possible forms of words to be sure of finding all the relevant information. IPSV sets a standard for the one form of words to use in the Subject metadata (for this example it is “School holiday schemes”) so that searches for this will always work. Additionally, IPSV provides variant expressions (for example, there is an entry “Play programmes (holidays) USE School holiday schemes”) so that searches for the wrong form of words will still retrieve the right one.

Being able to find all your information is even more important now we have the Freedom of Information Act. Make a thorough job of indexing (tagging) everything, and you will be in a much stronger position to find things when needed.

IPSV has good coverage of most of the subjects needed for community information, and/or by local authorities, so in this sector it is a great help with finding things. IPSV coverage is not so detailed in other areas. Central government departments, executive agencies and non-departmental public bodies generally find they need something else to help index their own information. (Another Guide on using Specialised Vocabularies is in preparation.)

2.3 Interoperability

The idea of the e-GIF is to help people share resources right across the public sector. But it can help inside your own organisation too. Sometimes the same information is published on the intranet as well as the internet website, entered into the records management system and a knowledge management system, and may be useful in the customer relationship management system too. Work has to be done to get it into each different system, and if you are not careful there is soon a proliferation of different versions of the same basic information, each needing to be updated separately. But by careful planning of your information architecture, building in standard metadata, you can arrange to have just one master version, maintained in just one place, and reusable within all the other applications as required.

When an item enters any one of the systems, or perhaps a content management system that sends data to all the others, it should be indexed (meta-tagged) thoroughly using IPSV. Then there will be a minimum of work needed as the item gets repurposed for each different application.

If one of the applications is an internet website, and if you have used the e-GMS and IPSV as the basis of your corporate metadata standard, then immediately your web pages will be interoperable with those of other public sector organisations. They can be harvested for use in portals and other syndicated applications.

To achieve semantic interoperability, it is crucial to use IPSV properly. This means **using the preferred terms, not the non-preferred terms**, as the Subject metadata values. Correct syntax is important too. Interoperability works only if everyone has done it the same way. See the [Guide to Meta-tagging with the IPSV](#) for more advice on applying terms correctly.

2.4 Share information resources with others

Authorities which are geographically close, or serve communities with shared interests, can sometimes realise economies by syndicating, or clubbing together on provision of information services. All that is needed is a clear division of responsibilities and a shared metadata standard. The resources provided by each member of the “club” can then be shared by all, with no extra work. It is another example of small-scale interoperability.

2.5 Drive news feeds

Metadata can be used to engineer supply of news services, using “push technology”. For self-selected coverage, users should be able to pick any IPSV term or combination of terms, for immediate news alerts. Then every time a page with that term is added or updated, a notification is sent to the user with a link to the page. The same mechanism can be used to generate a regular newsletter for a user group or community with common interests.

2.6 Build a website A-Z directory

Two objectives are common: firstly, to provide an index of all your own pages; secondly to comply with DCLG Priority Outcome R3. (The Priority Outcomes apply to local authorities, and some other organisations with e-government targets defined by the DCLG.)

Here is one simple way to build the index and meet both objectives:

- Select all the pages that you want your users to find directly from the index.
- From the metadata of those pages, list all the IPSV terms you have used, with pointers to the pages.
- Supplement this list with additional entries from all the corresponding non-preferred terms in IPSV.
- Supplement it also using your own list of locally useful terms (See section 3).
- Check you have included entries for all the subjects required for R3. You may be missing some, if your authority does not provide the service in question.
- Add an extra entry for each missing service, with a link to another website where the citizen can find out about this service.

2.7 Interoperability for users of IPSV Abridged

If your organisation is not a local authority and does not have a remit to provide community information, you may decide to use the Abridged version instead of the full IPSV. This will support broad categorisation rather than detailed indexing of your specialised subjects. Portals which harvest the pages from your website may use the Abridged IPSV terms to allocate the resources to broad categories within which users can search with their own keywords. If you have applied your own specialised vocabulary (a Guide on this subject is in preparation) as well as IPSV, the portal may be able to exploit these terms too.

2.8 What is IPSV not for?

There is a widespread rumour that IPSV should be used for the **navigation map** of your website. Do not believe it. IPSV was not designed to be exposed to the public, or to be user-friendly in a drill-down directory. IPSV works behind the scenes, in metadata, where it supports searching more effectively than browsing. You are of course welcome to lift or adapt parts of the IPSV hierarchies for your navigation structure, but in general you are advised to check that the structure and the terms you display match the needs of your own audience. If you are a local authority and you want to align your website with others, try using part or all of the [Local Government Navigation List](#) (LGNL).

Neither was IPSV designed as a **file plan** for electronic records management systems (ERMS). For that, the [Local Government Classification Scheme](#) (LGCS) could be your starting point. Terms from the LGCS provide names for the files and folders of your system, and may be used to populate the Title metadata element of these items. Please remember that you will **also** need to apply IPSV terms, in the normal way, to the Subject element. One efficient way of implementing your ERMS is to set up the file plan using the LGCS, and use the publicly available LGCS-IPSV mappings to fill in Subject metadata for every file and folder. Then, each time a new record is entered into one of the files, it inherits all the IPSV terms assigned to that file, and reduces the burden of indexing.

3 Adaptation for local needs

There is a fine balance between the advantages of standardisation – doing things exactly the same way as everyone else – and adapting your processes and products so that they are most helpful to your intended audience. Both the e-GMS and IPSV allow a certain amount of freedom to accommodate local needs, so long as interoperability is not impaired.

In the e-GMS, for example, you may want to add an extra element that would help with managing your content, but is not applicable outside your organisation. The only agreement you need to seek is from all the interested parties in your own organisation, leading to inclusion in your corporate metadata standard. The corporate standard should take the e-GMS as its starting point, omitting any elements that are not mandatory and will never be used in your organisation. Responsibility for maintaining it should be assigned to an individual, backed by a committee (formal or informal) of all the stakeholders in the organisation. The committee should be asked to approve any changes from the e-GMS, including the addition of any elements or refinements, and the explanatory text. If you think some of the changes would be useful to other organisations, you may also submit them to the e-GU as proposals for adoption in the e-GMS (email: govtalk@cabinet-office.x.gsi.gov.uk).

In the case of adapting IPSV, it is important **not** to alter the preferred terms in the scheme, or add to them, without approval from the IPSV Editorial Panel. A local term such as “Grandwell Leisure Centre” does nothing to support external interoperability, and would be positively harmful if used in metadata to replace the IPSV preferred term “Leisure centres”. However, it is perfectly acceptable to add a meta-tag “Grandwell Leisure Centre” **as well as** the IPSV term. Your metadata would then include two lines as follows:

```
<meta name="dc.subject" scheme="eGMS.IPSV" content="Leisure centres" />
<meta name="dc.subject" scheme="My_Local_Scheme" content="Grandwell Leisure
centre" />
```

Effectively you are supplementing the IPSV meta-tags with additional terms drawn from your own controlled vocabulary.

Another feasible approach is to add extra non-preferred terms to your local index of IPSV terms. For example, you could add an entry “Grandwell Leisure Centre USE Leisure Centres”. This could help users to find the right IPSV term while tagging or searching. If you choose this approach, special care is needed when IPSV is updated. If you replace the old version of IPSV with the new, you might lose all the non-preferred terms you have added. It is best to keep your local additions in a separate file, so that you can replicate them each time you implement an update.

4 Where to apply IPSV

IPSV is not just for websites. It is for almost all applications where you need to share unstructured information with other users, and find it on request. Some of the possible applications include:

- internet websites and portals
- intranet websites and portals
- electronic document and records management systems
- knowledge management systems
- content management systems
- customer relationship management systems

To make effective use of IPSV, some or all of the following functions may be needed in each application:

- a capability to associate metadata with the items in the database or system
- efficient means of selecting IPSV terms as meta-tags
- means of deriving IPSV terms via mappings from another vocabulary
- user-friendly interface for navigating IPSV to select search terms
- means of augmenting users' search terms with appropriate preferred and non-preferred terms

Generally there is a requirement for integration of part or all of IPSV with the software tools, and unfortunately, many of the products on the market have profound weaknesses in the way they apply taxonomies. For some tips on choosing this type of software, see [Design/selection criteria for software used to handle controlled vocabularies](#). Before you import IPSV into any of these tools, take a look through [Which IPSV? A guide to the versions and formats available](#). It explains the content and structure of the various downloadable files.

5 Planning the workflow

It pays to have a good understanding of how information flows in your organisation – where it originates, the processes that add value to it, who uses it and how important it is for their work. A full information audit is a great starting point. Better still if you can study the processes to determine the most efficient workflow. Procedures developed in a paper-based era can often be streamlined, and errors avoided, by good management backed with user-friendly support technology.

Sometimes you can use mappings to cut down the burden of meta-tagging. If you are using vocabularies such as the Local Government Service List (LGSL) or your own specialised taxonomy, as well as IPSV, it may be possible to derive the IPSV terms automatically from the more specific terms in the first vocabulary. On the [IPSV Home Page](#) you can find a set of mappings from the LGSL, in several formats. When you use mapping, or any other automated technique, to apply IPSV metadata, it is a good idea to check the results and override any errors manually.

Subject values from IPSV, or any other taxonomy, are generally added to document metadata after the editorial work is complete. If the job is done by people, we generally call it “subject indexing” or “subject meta-tagging”, but if it is automated the process is often called “automatic indexing”, “automatic categorisation”, or just “auto-categorisation”. See [Guide to Meta-tagging with the IPSV](#) and [Automatic categorisation for IPSV users](#) for guidance on these techniques, and some discussion of which to choose.

Whether you choose human or automated processes, it is important to have good tools, and put them in the hands of the right people, with proper training. Plan the process of adding metadata so that duplication and errors are avoided, automation takes the strain out of repetitive tasks and quality control is there when needed.

6 Implementing updates

Updates to IPSV are expected twice yearly. This is a compromise between the need to cope with new subjects arising, and checking that existing users are happy with the proposed changes. Many users value stability more highly than rapid changeover.

It is often easier to import a whole new version, lock stock and barrel, than to modify an existing version of IPSV that you have already loaded. This is especially true if you have set up links between the existing terms and some of your own data. For example, you may keep a file of mappings from the terms in your specialised taxonomy to the corresponding IPSV terms. You should plan your systems from the start, to make the transition easy.

For example, one change recently agreed was to swap the IPSV preferred term “ICT in learning” with its non-preferred term “e-Learning”. The latter is the preferred term in Version 2.0. But even though the terms have changed, the same Concept ID has been retained. The Concept IDs are more stable than the preferred terms, and you may use this knowledge to minimise the disruption caused by updates.

The document [Which IPSV? A guide to the versions and formats available](#) gives full details of the IPSV file structures, including version control information, which should help you with planning.

You and your colleagues may wish to contribute to the maintenance of IPSV by suggesting new terms and other amendments needed. You should submit your suggestions via the IPSV [discussion forum](#). (Register and login from <http://www.esd-toolkit.org/integratedforums/> if you have not done so already.) All updating proposals are subject to approval by the Editorial Panel.

7 References and links to IPSV documentation

Name of document	Comment
IPSV FAQs	The easiest place to start
Guide to Meta-tagging with the IPSV	Advice for webmasters and authors of electronic resources when entering metadata
Automatic categorisation for IPSV users	Tips before you implement automatic categorisation
IPSV Guidance Notes	Especially useful for local authority users
Design/selection criteria for software used to handle controlled vocabularies	Helps with choosing software for any part of the implementation
IPSV Editorial Policy	Includes discussion of the issues leading to development of the policies now in force
IPSV Maintenance Guide	Useful for the IPSV editor and for developers of other category lists, thesauri, etc.
Which IPSV? A guide to the versions and formats available	Full description of the options: online display, downloadable files, full or abridged, machine-readable or for human eyes
e-Government Metadata Standard (e-GMS)	Full details of all the metadata elements needed for interoperability in the public sector

7.1 Other standards and guidance

1. ISO 2788-1986 Documentation - Guidelines for the establishment and development of monolingual thesauri. Geneva: International Organization for Standardization; 1986.
2. BS 8723-1:2005 Structured vocabularies for information retrieval. Guide. Definitions, symbols and abbreviations. London: BSI; 2005
3. BS 8723-2:2005 Structured vocabularies for information retrieval. Guide. Thesauri. London: BSI; 2005
4. Aitchison, Jean; Gilchrist, Alan, and Bawden, David. Thesaurus construction and use: a practical manual. 4th ed. London: Aslib; 2000. 218 pp.
5. Will, Leonard; Dextre Clarke, Stella; Gilchrist, Alan; Davies, Ron. Glossary of terms relating to thesauri and other forms of structured vocabulary for information retrieval. Available at: <http://www.willpowerinfo.co.uk/glossary.htm>
6. Will, Leonard. Thesaurus principles and practice. Available at: <http://www.willpowerinfo.co.uk/thesprin.htm>

Note: Comments on this Guide should be posted on the IPSV [discussion forum](#)