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Software Asset Management Process Study Group Report

Introduction

The purpose of an International Standard is to implement an effective *Software Asset Management Proce*ss, in order to meet market needs/requirements to reduce costs, keeping a good software management and taking control of systems and software assets.

Software Asset Management Process refer to the people, processes, tools, partners and technology engaged in managing systems and software. The text below is a compilation of the correspondence made within the Study Group since the Plenary Meeting in Madrid 2000.

The Study Group included participants from multiple national bodies. The conveners and members of several WG's also participated in the study group effort, and provided valuable technical insight and understanding into the issues

Objectives

The Software Asset Management Process Study Group objectives were to consider the following issues:

- Identify the problem areas within software license management.
- Determine the framework for the subject.
- Identify different types of software licenses.
- Submit a proposal for the future progress.

Results

ISO/IEC JTC/SC7 document N2343 provided a starting point for the group to address the stated objectives. Asset Management is a wide concept, covering management of network and desktop assets. The results indicated that the proposed framework initially should be delimited to license-related Software Asset Management.

The following problem areas has been identified:

Organisation
- Organisations do not cover license management
- Lack of a central point for implementing effective control.
- Lacks of understanding of the software copyright law.
- Lack of a clear software code of practice policy.
- Insufficient budget provision for software procurement.

Technical
- Software identification problems when inventoring.
- It is a huge task to scale down an inventory result to understandable reports

Legal
- No sanctions agreed against software pirates.
- How to deal with licenses and agreements when companies are splited?

It is more and more common that companies hive-off departments and it also happens that the parent company only is a minority owner in the company they are hiving off. In those cases the parent company no longer can be the hived-off companies software owner. Therefore all application software has to be identified and negotiated by the new owners. This is a very complicated issue for many organisations because they suddenly discover that they do not know enough about their software assets. How many licenses do they need to transfer? Where are the license documentation and the purchase documentation?

Presently, it is difficult to identify and inventory software in the typical IT environment of medium sized and large companies. Even if some inventory tools may be able to retrieve information on executable files, e.g., when they are compiled with a common compiler, this information is normally not specific enough for the inventory process, in particular when managing software licenses.

When scanning files for complete software audits, another problem is that too many files are found in which no relevant information is included. As a matter of experience, IT systems store unnecessary files which cannot be removed in lack of relevant information.

The first condition to solve these problems is to tag every file with relevant information. This will make it possible to create and employ inventory tools to:

- Inventory and manage files of value for an organisation
- Manage the associated program files and group them into systems/applications
- Manage and dynamically assign associated program licenses
- Dispose of unnecessary and potentially damaging files.

Several types of software licenses have been identified. Please see appendix 2 for details.

Recommendation

The Study Group recommends that ISO/IEC JTC1/SC7 implement the following:

1. Considering a new SC7 working group to further define, develop and implement the process for proposed asset management. This group should cooperate with the existing SC7 working groups and include members from interested national bodies. Convener and project editor to be nominated.

2. The new working group should define the requirements for and draft a common software asset management standard. The group should also define, develop and implement the related technical guidance document that is required to support the standard.

3. Start up and prepare for the new SC7 working group during the 2001 ISO/IEC JTC1/SC7 Plenary Meeting in Nagoya.

4. A New Proposal will be circulated to SC 7 by 1 July, 2001, for a two months letter ballot, and sent to JTC 1 for information.

5. The new working group will be established due to approval of the new proposal, during the first quarter 2002.

Summary

License handling is becoming an increasingly important software engineering discipline. An international standard that defines a common software asset management framework and terminology applicable to software process, asset control, and product requirements will be a significant SC7 contribution.

Study Group Members have been:

Dr Hans Daniel, Germany
Mr Alan Davis, UK
Mr Ronny Elofsson, Sweden
Mr Mårten Frambäck, Sweden
Ms Anne Hogarth, UK
Mr Robert Johnson, USA
Mr Ian C. W. Lovsin, Canada
Mr Michael O'Duffy, Ireland
Mr Lennart Piper, Sweden
Mr Doug Thiele, Australia
Mr Roger Wittlock, Sweden

Appendix 1 to N2466 Rev 3

The following are examples of license issues where actions should be required:
ISSUE: Many global organisations have both global and local license agreements and on top of that they can also have site-specific agreements. Global and local agreements can differ in time depending on country. For example two – four years or three to five years, though this is not strictly followed. I.e. a two - four year agreement can be used in a 'three - five year country'.

RESPONSE:

ISSUE: An enterprise agreement can consist of agreements in three different levels. The highest level contains, for example, all the products but in the lowest level there is no possibility to see what is covered in the highest level. The agreement at the lowest level is signed without possibility for the signer to alter or influence the content.

RESPONSE:

ISSUE: Some software manufacturers create a unique license agreement for every individual customer.

RESPONSE:

ISSUE: Some software manufacturers do not sell their software. The only way to get it is to rent it. And?

RESPONSE:

ISSUE: How to deal with licenses when companies merge or get purchased? For example, one company has two years remaining on their WordPerfect license agreement. The buying company imposes another platform for word processing. The old WordPerfect agreement will remain but what implications will this have on your organisation?

Does anyone in the Study Group have any experiences about transfer of software assets? Please read more in the chapter " How to deal with licenses and agreements when companies demerge?"

RESPONSE:

ISSUE: Some license agreements include the right for the manufacturer or its representative to perform a revision on the buyers' site. The manufacturer can freely choose country for the revision and make conclusions for the whole organisation based on only one site. Microsoft has started an intensive license campaign in Sweden. They call large companies and organizations and tell them that Microsoft will visit them two weeks later for a strict review of their Microsoft licenses. We know a community in Sweden that has been asked by Microsoft to be prepared for a strict license review two weeks from today. Can your company proof a detailed license specification after just two weeks of preparations? Our guidelines should make these vendor visits obsolete. Please do give us some input in this matter.

RESPONSE: Companies should gain and maintain full control of its IT software assets with an asset management solution. Asset management processes are categorized into two components: data collection and data maintenance. The data-collection process has three major steps:

- Planning what asset information needs to be collected, how it is to be collected, and how it is to be maintained in the future, and defining the data-collection process.

- Collecting the data through a physical inventory process that involves manual and automated methods for data entry.

- Validating that the asset inventory information is correct and in an acceptable format for depositing into an asset management database. The maintenance and control of software assets requires an established lifecycle methodology and an integrated and accurate asset management system. Information gathered into this system comes from many sources. An integrated tool suite allows for management of assets with minimal time, cost, and user impact.

ISSUE: The complexity of almost all vendor license agreements makes this possible to happen. Most companies today put a lot of energy in keeping an up to date software license database without auditing vendors visiting them. Should we have license agreements that give the vendors the right to do an on-site audit at your company? Is this fair? Do you think it is right by the vendors to assume that your company is breaking the law?

RESPONSE: No, if a company has a good Asset Management tool and guidance than software vendors can be assured their software is under control and not being promulgated throughout an organization illegally. The Asset Management solution should integrate procurement, problem management, change management, and disposal. Accurate software asset records should be maintained in a central data repository, a software tool designed to effectively collect information about IT assets and to present it in a variety of formats should be procured. These tools allow for the tracking of financial data (lease dates, lease payments, purchase price, depreciation, etc.) and warranty and maintenance contracts, and provides insights into Total Cost of Ownership.

ISSUE: Matching products installed to license entitlement is a complex business with many possible relationships. Most companies do not have a long-term strategy for software consumptions and therefore lacks in-house expertise. To reconcile software consumption in the enterprise, with software entitlement resulting from purchasing, is difficult. This is due to the huge number of possible relationships between individual software executables and licenses purchased. The standard will provide every company the tools for a reliable and efficient license handling.

RESPONSE:

ISSUE: Hardware manufacturers can bundle third-party applications in their products, such as public switchboard. What implications will that have, i.e. is the manufacturer aware of the consequences?

RESPONSE:

ISSUE: What is a license? Licensing highlight discrepancies, such as software used without a valid license or software bought, but not in use. A process for managing changes in software consumption and entitlement is necessary.

RESPONSE: Nearly all <application.html> are licensed rather than sold. There are a variety of different types of software licenses. Some are based on the number machines on which the licensed program can run whereas others are based on the number of <user.html> that can use the <program.html>. Most personal computer software licenses allow you to run the program on only one machine and to make copies of the software only for <backup.html> purposes. Some licenses also allow you to run the program on different computers as long as you don't use the copies simultaneously.

Licensing is critical not only for organizations establishing software compliance standards, but most importantly for strategic IT asset management initiatives. As IT budgets for software increase, so will the need for accurate license tracking activities that provide leverage for negotiations.

ISSUE: How can the role for the software co-ordinator or license manager be defined? A software co-ordinator or license manager should be able to understand and work within the software copyright law and the individual license agreements. In the role is also to understand the needs of the end users and to ensure that the end users understand the software copyright law and the individual software license agreements.

RESPONSE:

ISSUE: Shall we create a guideline for "Software Code of Conduct"?

RESPONSE: Yes, a Software Code of Conduct needs to be developed. Software whether developed in-house or by a third party, is a valuable asset without which most businesses cannot function, and as such it needs safeguarding, especially in distributed environment in which software may be replicated. Guidance needs to be provided on planning and managing a software control and the distribution function which controls, stores, distributes, and implements software efficiently and effectively.

Plus, the centralized collection of software license information will allow strategic decisions in regards to implementing and tracking the progress of new technologies across an entire agency or company in a timely and efficient manner.

ISSUE: Does anyone know any company or organization that are treating software licenses in an extreme standardized way already? It would be interesting and valuable for our Study. Group to have a deep discussion with them. This has also to do with how the role of a software coordinator would be defined.

RESPONSE:

How to deal with licenses and agreements when companies demerge*?
Everybody are affected by a demerge. Good administrative rules at a demerge or merge serves both the user and the supplier and also leads to license compliance. To not handle the license and agreement issues at demerge is a hotbed for a chaotic situation and besides that it is illegal.

It is more and more common that companies hive-off departments and it also happens that the parent company only is a minority owner in the company they are hiving off. In those cases the parent company no longer can be the hived-off companies software owner. Therefore all application software has to be identified and negotiated by the new owners.

Based on the list below we will attempt to define a detailed method for an efficient license and agreement handling in the demerged company.

1. Appoint responsibility. Every department should have appointed personnel that will define their total software needs.
2. Appoint a steering committee and a project manager that will define the license and agreement demerge project.
3. Everyone appointed at department level should report to the project their future software needs. Besides that, they shall also report what licenses they are using today, where the license and agreement documentation are, where the media are, name of the software supplier, the suppliers contact person, relevant information about the history with each supplier and information about ongoing negotiations.
4. The license and agreement documentation are collected to the project.
5. The project contacts each supplier for negotiations.
6. The licenses and agreements are transferred to the demerged company according to the negotiated deal. The actual date for each official license transfer might differ in time depending on the agreement.

*"demerged company" means the company whose undertaking is transferred, pursuant to a demerge, to a resulting company;'.

The following types of application licenses have been identified:

- *Site licence with stringent vendor controls*
    - o The software is licensed for site wide usage at a fixed charge. In addition individual dongles or individual PC licence numbers are required to 'activate' the software package on any PC platform.

- *Site licence with less stringent vendor controls.*
    - o For an agreed fee the software product may be distributed within the site as required. A single common software licence number is required to activate the software product for all installations of the software product.

- *Incremental site licence with stringent vendor controls*
    - o As with site licence, vendors seek to impose a measure of control by the inclusion of a requirement for a correct current licence code with which to 'activate' (or to install the software product).

- *Incremental site licence with no vendor controls*
    - o An incremental site licence in which software licence number is not required.

- *Retrospective 'pay-as-you' require with very stringent vendor control*
    - o An agreement in which each software licence required is accounted and charged for based on software uptake reports. This information is reported back to the supplier via a central contact within the organisation.

- *Bulk purchase as required*
    - o Centrally administered purchases to take advantage of 'bulk' purchasing offers. Several forms of this offer are in evidence: software licence cost decrease with size of current order, order must be a minimum size to achieve the education discounted price, additional software product licence charge decreases over time as overall investment in that software product increases over time.

- *Pre-installed*
    - o PCs are generally purchased with the operating system pre-installed and therefore pre-licensed. However, these licences must still be administered. It is also very common that organisations install a standard client instead of the pre-installed operating system.

- *Ad hoc purchase*
    - o This category is primarily to be found within the specialist end user areas of the organisation.

Appendix 3 to N2466 Rev 3

Software Asset Management Process

Notes from meetings May 14-16, 2001, Nagoya Congress Centre.

Participants: Mr Junzo Kato, Japan
                      Dr Hans Daniel, Germany
                      Mr Ronny Elofsson, Sweden
                      Mr Lennart Piper, Sweden
                      Mr Roger Wittlock, Sweden
                      Mr Pekka Forselius, Finland
                      Mr Robert Johnson, USA

The meeting started with a general description of the problem area. The participants agreed that both software manufacturers and software users will benefit from a controlled software, data file and license handling.

To validate any standardisation needs/interests it may be useful to obtain feed back from said manufacturers and users, possibly though manufacturer and user organisations.

Presently it is difficult, if not impossible, to identify and inventory software in the typical IT environment of medium sized and large companies. Even if some inventory tools may be able to retrieve information on executable files, e.g., when they are compiled with a common compiler, this information is normally not specific enough for the inventory process, in particular when managing software licenses.

When scanning files for complete software audits, another problem is that too many files are found in which no relevant information is included. As a matter of experience, IT systems store unnecessary files which cannot be removed in lack of relevant information.

The first condition to solve these problems is to tag every file with relevant information. This will make it possible to create and employ inventory tools to:
- Inventory and manage files of value for an organisation
- Manage the associated program files
- Manage and dynamically assign associated program licenses
- Dispose of unnecessary and potentially damaging files.

It is therefore suggested that every IT file should be tagged, in a standardised way, with information that supports an efficient inventory process according to the procedures of a given organisation.

To progress further to the creation of a new working group, the following chart should be populated with the new WG vision of standardisation work.

General						
	Process	Product	Tools	Techno-logies	Resour-ces	Data
Principle standards						
Element standards						
Guides and supplements						

The following areas of possible standardisation efforts were identified:
- Definition of the Asset Management process
- Possible Methods and Tools
- Definition of the Asset Tagging Data Format

The Asset Management Process is seen on the Organisational/Enterprise Level. 15288 presently defines there the following processes:
1) Enterprise Management Process;
2) Investment Management Process;
3) System Life Cycle Processes Management Process;
4) Resource Management Process.
  It seems plausible to add there:
5) Asset Management process

Possible methods and tools have not been investigated; they may or may not already exist today for particular domains. However, there are comparable management processes in use for:
- Managing configuration data in software
- Managing parts in mass production
- Managing keys, access rights, TCP/IP numbers, licenses

Tagging Data Aspects of interest for Asset Management were found to include:
- the creating program and its version
- the history information of files; such as installation/creation date, change dates, fist/last use, and so on
- the description of the program/data format and its version
- information on conversion into other formats, converter program and ist version
- file signatures
- locale information such as date format, character set and version, decimal point, currency format
- warranty
- vendor
- errors, read-me
- associated other files and version