Managing Engineering software vs. Business software

This white paper addresses the differences between Engineering and Business software management, the problem, and solutions. Simply speaking, they are two uniquely different problems requiring uniquely different solutions. For the same reason, you wouldn't us a flat-head screwdriver for a Philips-head screw. Engineering software, called CAD (Computer Aid Design), CAE (Computer Aided Engineering), EDA (Electronic Design Automation), is critical to the Engineering department. Engineering departments typically spend $250,000 per year per 100 Engineers. Best practices tools like LAMUM can reduce this cost by 15-25% per year, and allow proper management of these expensive company assets.

Business software is typically cheaper per seat, but there are many more seats, with the exception of the big Database, CRM, Accounting, systems. Where a company might spend $250,000/year on engineering software, they might spend $2.5mill/year on Business software.

Let's examine the two types of software and look at management issues for each:

Engineering software (CAD, CAE, EDA,……)

- Cost: Can range from $1,500 a seat to $100,000 per seat, with average about $10,000 per seat/User. Cost depends on software functionality, value, and # competitors. Seats are typically "floating", meaning anyone can use them.

- Purchase method: Usually sold on Annual Subscription basis, with annual remix, i.e. you can change the number and type of seats/licenses annually. Renewal time is therefore, very important!

- Licensing: Usually "floating" Licenses (sometimes called concurrent-use or networked). Floating license are like books in a library. You buy 5 licenses, which allows up to 5 licenses to be "checked out" concurrently. After that, no more licenses are available, which could result in a "Denial". Tracking and reporting "Denials" is very important! Floating license checkouts are typically managed by a License server daemon. Common floating license daemons are FlexLM, DSLS, Reprise, LM-X,… FlexLM is the most common. Multiple License servers are common, one for each concentration of engineers. There is an occasional need to track Licenses inside a "Secured" (firewalled) area.

- Restriction on use: there can be various limitations, and restriction of use is highly critical. Typical restrictions are WAN, LAN, Node-locked, User-locked, and there can be many variations thereof. Most CAD Vendors offer LAN or WAN, and some Node-locked only. Node-locked is the cheapest per seat. LAN is more expensive and WAN is even more expensive per seat. However, it would unrealistic, and cost-prohibited, to provide a Node-locked to every engineer.

- Vendors: There are many CAD/CAE software Vendors and Resellers in the Industry. It is not uncommon to be dealing with 20-30 different Vendors and/or Resellers for engineering software. Keeping track of each Vendor information, contracts, contacts, terms and conditions, Renewal dates, License keys,… and sharing that information, can be a real problem.

- Solution:

  - Ability to handle many License type, many Purchase types, many User types, many Vendor types,…
  - Handle multiple "floating" license daemons on multiple License severs, at multiple locations
  - Prevent License holding (hoarding, camping). Promote license use efficiency.
  - Monitor and report usage of all floating licenses*
    - Current Checkout reports (real-time)
    - Historical Usage reports
    - Top 10 Users reports
    - Denial reports
    - User and Group usage details
    - Zero-usage reports
    - On-demand reports (browse "favorite" or User dashboard methods)
    - Batch usage reports (Weekly, Monthly,….)
    - Chargeback reports
  - Automated Alerts
    - Daemon-down Alerts
    - Capacity threshold Alerts
    - Long checkout Alerts
    - License key expiration Alerts
  - License Daemon Manager

(* Actual, Average and Usage Trend reports help determine if you need more/less or different kind of License. May also help allocated costs to Departments, Managers, Projects,….)

Business software (Microsoft, Adobe, Oracle, CRM, Project Mgmt, Manufacturing,………)

- Cost: could be $Millions. Based on the total number of employees. Every employee uses some business software. Companies typically by "Enterprise" packages (1,000 seats, or 10,000, or unlimited) for those applications. The biggest software application is probably Microsoft or Adobe. There is also Oracle, CRM, Manufacturing,…. These are single, but very, very expensive Licenses. Usage of them is not so important. You must have them, and they are what they are.

- Purchase method: Typically perpetual licenses with fixed number of seats. For example, a company might purchase 1,000 seats of MS Office, distribute 900 and keep 100 in reserve. Of course, there may be an Annual Subscription plans which could be $1millions per year!

- Licensing: Usually NOT "floating" Licenses. They are almost always node-locked to a specific PC or server. The company must be extremely diligent in distributing licenses and keep meticulous records on who has what. Compliance is a "BIG deal". Company wants and needs to know what is on every PC, to ensure that software is properly licensed. Audits are periodically conducted by Software vendors, and if a violation is found, penalties can be extreme. Therefore, Business software management vendors typically provide a "Network Spider" to look inside every PC to

see what is installed, then compare that to their inventory records to confirm a valid license exists. All licensing is typically handled from one central License server.

- Restriction on use: typically node-locked. Again, meticulous records must be kept to ensure you have not exceeded you purchased "inventory". Some applications may use floating licenses, like FlexLM, but most are node-locked. There is no requirement for tracking "Usage" since people need the application to do their job, even if it is only used 5% of the time.

- License use efficiency: not an issue

- Vendors: There usually only a few large Vendors per company and typically no Resellers. Vendor information management is not a big deal since these contracts are handled at a very high level.

- Solution:

  o Network spiders to audit installed software on every PC in the company
  o Manage Purchases and Inventory
  o Compare installed software to purchased software Licenses
  o Compare distributed software to Inventory
  o Manage "reserves"
  o Report where every license is installed, and report back to Vendor
  o Produce compliance and audit reports

Further considerations:

Engineering software is licensed uniquely, controlled uniquely, used uniquely, and is very expensive. Most engineering software is shared so monitoring checkouts, deciding between node-locked, LAN or WAN is critical in managing the balance between cost and availability. Compliance is another concern, especially for a large industrial companies or Defense Contractors.   We have built a solution that addresses these issues. LAMUM is a software product and a "methodology", which represents "best practices" in this area. LAMUM was created 12 years ago and represents 12 years of refinement towards the perfect tool for managing Engineering software assets.

Business software management Vendors focus on the Business software management problem, and generally have no idea what is required for managing engineering software. The statement that all software is the same is blatantly false. That's like saying one screwdriver is good for all screws! They may not understand the different License daemon types, Current Checkouts reporting requirements, or any of the Usage reports. They will not even understand the difference between a Tool and a Feature. They will not understand the importance of "Checkout Heatmap" or a "Denials Heatmap". They will not appreciate the importance of a Concurrency Graph, or the difference between 24x7 or M-F, 8-5. They will not have any understanding of a "Denials" report, or a "Zero-usage", or an "Averages" report.

Can your company reinvent LAMUM, build your own version? Sure but you will not have the expertise, the time, or the resources. LAMUM has 10,000+ hours of development time. You will pay a lot more than the cost of LAMUM to create it! This is our focus, our area of expertise, not yours. Why reinvent the wheel when it's available, easily implemented, and very inexpensive.

Summary:

So, does your company believe in the correct solution for the correct problem? Do you want to effectively manage engineering software inventory and license availability?   Is your company looking to minimize cost of engineering software? Is your company concerned about license-use compliance? If the answers are yes then you should go with License Asset Manager with Usage Monitoring (LAMUM).

Don't think that a Business software management tool is going to address engineering software management requirements. It just won't! Don't be led to believe that you'll save money that way either. You won't! The LAMUM system will pay for itself in days.

Don't try to build something yourself. It will be too costly, resource consuming, and be obsolete before you even finish it. And then there's the issue of documentation and maintenance. Who will do that? What happens if/when the initial developer is gone?

There is simply nothing in the industry that can compete with LAMUM. It is most effective way for managing engineering software assets.

For more information-

TeamEDA Inc

603-656-5200

info@teameda.com