



RECOMMENDATIONS FOR LICENSING

Background

License Management is the process of securing a software application so it only runs with a valid license. **Licenses** are software tokens that enable a protected application to run. **Licenses** contain details of their specific authorized usage. Examples are the number of users, expiration date, and fingerprints. **Fingerprints** are used to authorize license usage on one system only. Also referred to as the locking code, the fingerprint stored in a license is verified against the machine it is run from. It is what protects the application from being used on unauthorized machines.

After investigating the various methodologies of licensing software the Microsoft Manufacturing User Group (MS MUG) feels that the ideal solution is a combination of:

- Standalone Software (With Demo & Authorization)
- Combined with a Multi-Client server Authorization

The MS MUG feels that this would provide the optimum method of ensuring that Automation Software Suppliers receive the maximum amount of revenue, while the end user can ensure that all of his software is correctly licensed with a minimum use of resources.

For a licensing methodology to be truly successful, the advantages must substantially outweigh the disadvantages for both the supplier and the customer. For this reason the MS MUG has adopted the approach of trying to outline the advantages and disadvantages for both sides. It is very unlikely that MS MUG will have identified all of the advantages and disadvantages for both sides but it should provide a good starting point

Standalone Software licensing

This mechanism uses individual application licensing by using various techniques on a standalone node. For example license verification (finger printing) can be implemented using a license file, a dongle, a floppy etc. Some of the application functionality can be enabled or disabled by particular technique used by that vendor.

Server based licensing

This is a more complex but very useful for enterprise based applications where various network nodes are used in a solution. For example, user may have a complete Supervisory and Control application using 10 nodes for visualization, 3 for historian, 30 nodes for clients, 2 for batch engine and 5 for data acquisition etc. If vendor provides a central licensing server to administer licensing system, user will be able to manage 50 nodes licensing from one server instead of 50 nodes individually. For advance application, system can provide additional features such as redundant servers, commuter license, concurrent licensing, internationalization, load balancing etc.



Supplier Perspective

Advantages

- Salesmen can easily provide all of their customers with Trial Software.
- This results in an increase in sales
- The Supplier has a database of all of the software that has been supplied to each Customer.
- It is very secure
- Theft is difficult
- Cheap
- Convenient
- Simply a network implementation of their current security system

Disadvantages

- There is an overhead cost required to provide Licenses and Authorization codes
- Some suppliers have automated this service and it is available on their web site
- Customers may continue to reinstall during the Demo Period and may never purchase a License (We are of the opinion that no legitimate end user would operate in such an illegal manner)
- Not all suppliers products are capable of looking for an Licenses over a network

Emergency or Temporary License Requirements

There is a very strong need for the users of mission critical manufacturing applications to keep the manufacturing applications running. With this in mind the suppliers of such software must provide a convenient method to return manufacturing applications to service after any type of failure or repair to the application. Users are aware of the suppliers' need to protect their software and respect that right. Requirements or methods may change based on the method used to protect the software but certain requirements can be established for any system

- Any method that is used to get the line running must be available to the plant personnel 7x24 within 1 hour of identifying the need.
- Temporary licenses may be needed to get a line operating quickly but other methods that meet the requirements are acceptable
- Temporary licenses may be different than demo licenses, in that all functionality must be provided.
- Temporary licenses should identify themselves to the operator at least once a day but no more than once an hour.
- Temporary licenses must provide a notice that they will expire at least 24 hours before that event.
- Temporary licenses must last long enough to have the line run over a long weekend or major holiday period. At least 5 days are necessary
- Temporary licenses must be easy to obtain and or install by a basic level technician
- Users will be expected to keep track and identify license identification information.



- Users will be expected to justify multiple and frequent requests or use of temporary licenses.
- Users will be expected to provide proof of legal license ownership before the temporary license expires.
- No extra fee or charge will be required to support the costs of temporary licenses. This must be covered by the initial purchase.
- Everyone recognizes the fact that these systems are in place to benefit the suppliers and not the users.