Software License Monitoring Using IIS

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Abstract: This project deals with a complete control “Software License Monitoring System”. This project is used to maintain the inventory control of the various software licenses that the organization had. This System maintains the details such as no of software licenses, type of license, license no, license key, no of users, license validity and so on. These details are stored and maintained by the different hardware engineers. The software, which is installed in a particular machine, is rollback, whenever the purpose of software is finished. These rollback and expiry alerts will be given by the project to the concern persons. It will all help the organization to maintain and control the software usage.

Key words: Software License Monitoring System • License Validity • Inventory Control • License No

INTRODUCTION

The purpose of this software specification (SS) is to establish the major requirements and specification necessary to develop this Software Systems for the Developers. The overall objective of the Team Project is to establish a Client Server Oriented project. The goal of this document is the same as any requirements document, to lay out all requirements of the application in order to have both the developers and the end users maintaining the same understanding and expectations from the application. The project requirements will define, in general terms, the setup of the web site, topics for available information concerning the Software Project Management.

Feasability Study: This Software License Monitoring System is provided so as to present an easy way of updating the information about the Software License Particulars in the Client Server Network. The system also helps the Administrator and the Higher Officials to know the Existing License Particulars, No of users available for the software and expiry dates of it. Since the system contains the updated information during any point of time, the user gets the proper information that was needed.

The system being developed can be deployed on an intranet or an Internet, since it operates on a data that is stored in central database on the server. It can be installed on any web server within the organization or hosted by any web hosting company v [1]. Also included a mailing service for sending/receiving the rollback alert and expiry alert message specific to the local network reduce turnaround of paper files within an organization. This will help the Hardware and Network Engineers to control the software [2].

The server provides a great security, so that an unauthorized user cannot be permitted to use this facility. Some of the features provided by these systems are

- Interactive portability with the user
- Fast storage and retrieval of requested data
- Reduce the turnaround of paper work
- Ensure security

Existing System: In the organization the details about software used in the projects are maintained by individually in a excel sheet. Admin having all the details in the excel sheet and the installation people are give a report to him regarding the installation details of the software. These things are updated in the excel sheet [3]. System Admin maintains the expiry date alert and the Rollback alert only. It is very difficult to control in a manual process.

Proposed System: The proposed system is designed to provide a solution for the drawbacks of present system. It aims to:

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Replace Manual Processing system with an automated one.

- Speedup Transactions
- Reduce the chances of confusion and work lag associated in a manual system.
- Reduce the workload involved in processing
- Update information system and provide easy access to corresponding information.
- Full automated control through online
- Easy Handling Expiry and Rollback Alerts.
- Online Maintenance of Records that very much useful to the administrator, for any no of licenses.

**IIS Architectures Overview:** IIS is a core product, which means that it is designed to work closely with many other products, including all products in the Windows NT Server 4.0 Option pack. The following figure shows the relationship between IIS and other products installed as part of the Windows NT Server 4.0 Option pack.

**Security for IIS Application:** IIS provides three authentication schemes to control access to ITS resources: Anonymous, Basic and Windows NT challenge/Response. Each of these schemes had different effect on the security context of an application launched by ITS. This includes ISAPI extension agents, COT applications, IDC scripts and future scripting capabilities.

**Access Privileges:** IIS provides several new access levels. The following values can set the type of access allowed to specific directories:

- Read
- Write
- Script
- Execute
- Log Access
- Directory Browsing.

**System Environment**

.NET Framework: The .NET Framework is many things, but it is worthwhile listing its most important aspects. In short, the .NET Framework is: A Platform designed from the start for writing Internet-aware and Internet-enabled applications that embrace and adopt open standards such as XML, HTTP and SOAP. A Platform that provides a number of very rich and powerful application development technologies, such as Windows Forms, used to build classic GUI applications and of course ASP.NET, used to build web applications. A Platform with an extensive class library that provides extensive support for date access (relational and XML), a director services, message queuing and much more. A platform that has a base class library that contains hundreds of classes for performing common tasks such as file manipulation, registry access, security, threading and searching of text using regular expressions. A platform that doesn’t forget its origins and has great interoperability support for existing components that you or third parties have written, using COM or standard DLLs. A Platform with

**Internet Information Server (IIS):** A web server is a program connected to the World Wide Web (www) that furnishes resources from the web browser. Microsoft IIS is a web server integrated with Windows .NET server that makes it easy to publish information and bring business application to the web. Because of its tight integration with Windows NT server, IIS guarantees the network administrator and application developer the same security, Networking and administrator functionality as Windows NT server. Above and beyond its use of familiar Windows NT server Tools and functionality, IIS also has built-in capabilities to help administer secure websites and to develop server-intensive web application.
an independent code execution and management environment called the Common Language Runtime (CLR), which ensures code is safe to run and provides an abstract layer on top of the operating system, meaning that elements of the .NET framework can run on many operating systems and devices.

**ASP.NET:** ASP.NET is part of the whole .NET framework, built on top of the Common Language Runtime (also known as the CLR) - a rich and flexible architecture, designed not just to cater for the needs of developers today, but to allow for the long future we have ahead of us. What you might not realize is that, unlike previous updates of ASP, ASP.NET is very much more than just an upgrade of existing technology-it is the gateway to a whole new era of web development.

**VB Script:** VB Script, sometimes known as Visual Basic Scripting Edition, is Microsoft’s answer to Java Script. Just as Java Script’s syntax loosely based on Java, VB Script’s syntax is loosely based on Microsoft Visual Basic a popular programming language for Windows machines. Like Java Script, VB Script is a simple scripting language and we can include VB Script statements within an HTML document. To begin a VB Script, we use the `<script LANGUAGE=“VB Script”>` tag. VB Script can do many of the same things as Java Script and it even looks similar in some cases.

**ActiveX:** ActiveX is a specification developed by Microsoft that allows ordinary Windows programs to be run within a Web page. ActiveX programs can be written in languages such as Visual Basic and they are compiled before being placed on the Web server. ActiveX application, called controls, are downloaded and executed by the Web browser, like Java applets. Unlike Java applets, controls can be installed permanently when they are downloaded; eliminating the need to download them again. ActiveX’s main advantage is that it can do just about anything.

**ADO.NET:** ADO.NET provides consistent access to data sources such as Microsoft SQL Server, as well as data sources exposed via OLE DB and XML. Data-sharing consumer applications can use ADO.NET to connect to these data sources and retrieve, manipulate and update data. ADO.NET cleanly factors data access from data manipulation into discrete components that can be used separately or in tandem. ADO.NET includes .NET data providers for connecting to a database, executing commands and retrieving results. Those results are either processed directly, or placed in an ADO.NET Dataset object in order to be exposed to the user in an ad-hoc manner, combined with data from multiple sources, or remote between tiers. The ADO.NET Dataset object can also be used independently of a .NET data provider to manage data local to the application or sourced from XML.

**Module Description:** This project deals with a complete control “Software License Monitoring System”. The system maintains the details such as total number of license, type of license we have, the license that has been used, validity of license and so on.

It includes the following modules,

**Addition of new software license:** It used to feed in the details of the new software. The detail includes:

- Software name
- No of User
- Vendor/Issuer
- Cost
- Valid Till
- Type of license (Host based/User based)
- Usage Alert Limit

**Addition of More Licenses to the Existing Software:**
This module is intended to update the additional licenses to the existing set of licenses to the software. It includes the fields such as:

- Software name
- No of License
- Vendor/Issuer
- Cost
- Valid Till
- Type of license (Host based/User based)

**License Installation Update:** This module is intended to update the details of each license that had been put to use in a system for a particular project.

- License Number
- Software
- Usage Till
- Assigned to `<Machine Number>` / Project
- Assigned By
- Authorized By
- Date and time of Installation
- Type of License
License Rollback Update: This module is intended to update the license details of those that had been rolled back, so that it can be displayed as available for further/future use. It includes the fields such as:

- License Number
- Software
- Rolled back by
- Authorized by
- Date and Time of Rollback

License Usage Report: The report is intended to list the usage of the individual license key for particular software [5-9].

License Validity Report: This report lists the validity periods of the various licenses available for the various software.

License Expiry Alert (Mail): The alert is intended to be populated a specified number of days earlier prior to the date of software expiration. The specific number of days is configurable by the administrator.

License Usage Limit Alert (Mail): The alert will be generated when the number of license in use exceeds the usage limits for the software.

License Rollback Alert (Mail): The alert needs to be generated a specified number of days earlier prior to the date on which the license needs to be rolled back.

CONCLUSION

This Software License Monitoring System is provided so as to present an easy way of updating the information about the Software License Particulars in the Client Server Network. The system also helps the Administrator and the Higher Officials to know the Existing License Particulars, No of users available for the software and expiry dates of it. Since the system contains the updated information during any point of time, the user gets the proper information that was needed. The system being developed can be deployed on an intranet or an Internet, since it operates on a data that is stored in central database on the server. It can be installed on any web server within the organization or hosted by any web hosting company. Also included a mailing service for sending/receiving the rollback alert and expiry alert message specific to the local network reduces turnaround of paper files within an organization. This will help the Hardware and Network Engineers to control the software. The server provides a great security, so that an unauthorized user cannot be permitted to use this facility.

Books:
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- The Modules-Module Base Class
- ASP.NET made Simple, BPB Publications
- Concepts of .Net, Chapter 9
- By Michael Otey and Paul Cote

Connecting to SQL Server-Chapter 11
- ADO architecture-Chapter 15
- SQL-A Complete Reference by Alexis Leon and Mathew Leon
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World Wide Web:
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