

PrintUsagePro Print Monitor system software

Version:V4.0

User Installation Guide



Revision History

Version	Data	Significant Changes	
No	(mm-dd-yyyy)		
1.0	11-14-2014	Initial Version	



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1. Term Definition

The following content involves the print or Network-related terminology; in order to avoid confusion, describe these Definitions here.

Refers to the computer installed on Windows	
2002/7/2009/2012 Shared minister and another langest in the	
2003/1/2008/2012, Shared printers and provided user services.	
The following document, sometimes in order to emphasize the	
difference between the print server and Hardware, also known	
as the Windows print server.	
A small hardware, can convert one or several parallel port, USB	
port to connect directly to a printer on the network equipment.	
For example: HP Jetdirect 500x.	
The built-in network interface directly connected to the printer	
on a LAN; Through external print servers connected to LPT,	
USB printer interface, also known as network printers.	
Usually refers to the LPT, USB printer; The printer must be	
connected to a computer to print.	
Each customer establishment based on TCP/IP port with local	
printer to print to the network printer type. This way of printing	
doesn't need to have a dedicated computer as a print server.	
Refers to each customer to print by connecting the Printer	
which shared printer for printing type in Windows server. This	
way, there must be a dedicated computer as a print server.	
The information stored on the object of the network and make	
these information can be used for users and network	
administrators. Allow Internet users access to any position on	
the network with a single login process which allows access to	
resources.	

This document applies to V4.0 PrintUsage print monitoring system V4.0 standard and V4.0 enterprise edition. The following content most are suitable for the two versions. Enterprise edition content will be labeled "(enterprise edition only)".



2. Product Overview

2.1 Product Main function

Monitor print behavior and record to the log.

• Records each print servers, printers, document name, the user, computer, print the number of bytes, print pages, paper size, printing time, color, printing costs, etc.

Save Print contents and reprint (enterprise edition only)

- If use the PrintUsage Universal Driver for deployment, user can-print and save with any printers, and view all print content.
- If use the printer manufacturer specific drivers for deployment, user can save the print content and refer any time(Support the printer languages PCL, PostScript, EMF, and XPS)
- Choose to save printer's printing content and converted the resolution of the images. Set up for some users and not to save the print contents.

Print content retrieval(enterprise edition only)

• Use PrintUsage generic driver can extract the part of the text in the Print content.(Note: cannot extract text contained in images).

Force headers, watermarks(enterprise edition only)

- Use PrintUsage generic driver, user can add headers, watermarks, two-dimensional code, Bar/2D code, and others in the Print contents.
- For non PrintUsage part of the printer driver can also add headers, but need according to the actual printer test.

Print billing and Control

- Can be in accordance with the printer, paper, size, color/black and white, single/Duplex side, print/copy/scan/fax respectively set the unit price per page.
- User quota as the main form of cost control, and set fixed quotas, unlimited quota, and according to the year, quarter, month, week, day printing quota.
- From the time, file type, users and many others to print control.

Statement Analysis

• Seven categories of the default report type, from usage, printing costs, printing load and many others provide report with pictures.

Swipe and Print(Extended functions can be purchased separately)

• Support EMID, IC, HID and other smart cards, for user's print jobs, after swiping through certification output the papers.

Swipe and Print version upgrade(Extension function, buy separately)

• Realize the user print from a driver on the same brands and models of printers out of paper

Roaming print(Extension function, buy separately)

• User from a driver to print, and choose any type of printer out of papers. Achieve follow Me Print.

Manually Audited(Extension function, buy separately)

• For some sensitive job or a printer or department personnel, can force to achieve print job manual review. All work must be released after the audit to print.

Client Audit(Extension function, buy separately)

• For some use public print terminal or print environment not well definition print personnel, provides a way of cost allocation.

Multi-function equipment management

- For Toshiba, Kyocera, Sharp MFP, to carry on the function, cost controls.
- Printing Counterfoil of traceability, copy Counterfoil, scan, and fax record.
- Manually Audited.
- Scan to me.
- Automatic registration card number

2.2 Product features

save the print content

• Preserved the entire contents of each print job as Tiff image formats, Can view the Web Page(Enterprise edition only).

Web Page management



- System management and view reports in Web page in each networked computer any time, don't need to install any client application.
- To set a number of different roles and permission administrators, realize multi-level management(Enterprise edition only)
- System only needs to install on the server, to print the client completely transparent, has no effect on the users' printed.
- The user can check user account information via the Web Page and print history.

Centralized management, centralized authentication billing

• As many printers can be incorporated into the management, realize the centralized management, centralized authentication billing, convenient for the users to print resources centralized management and cost control.

Rich Web statements

- In any on a networked computer via a Web page can check the report at any time; don't need to install any client application.
- Seven categories of the default report type, from usage, printing costs, and print the load, provide report with pictures.
- Advanced reporting capabilities, to provide maximum flexibility.
- Support will export a report to Excel format.

Flexible authentication billing model

- Two authentication modes according to the user name or computer name, domain or local area network (LAN) peer-to-peer network model can be a good support.
- Support multiple domain user account to import and unified accounting certification.
- Support for different type of papers, color/black and white, single/Duplex printing, using a different billing rates.
- Support according to the year, quarter, month, week, day, and a fixed value set user print quotas.

Structure is reasonable, the implementation of flexible, easy to extend.

• By site management, central database and monitoring service of three modules, as well as stand-alone installation can also be distributed deployment, meet the application requirements of different size.

Support a variety of database types, meet different application requirements

• Support MS Access, MS SQL Server and MySQL, user can switch at any time and transplantation according to need.



• MS SQL SERVER recommended.



3. Product architecture

3.1 The main modules

The name of the moduleBelongs install module		The main role	
Web site management		Realize the centralized configuration, management, view reports and print contents, etc.	
Maintenance tools	The management	The migration between different databases, the user account and AD account synchronization, will install with Web site management	
The Schedule service	server	Provide a distributed installation print server database configuration, synchronous clock, monitoring of authorization, perform regular tasks	
The central database		Record print log information and configuration information (not stored print content)	
Print monitoring service		Records, control of print, save print contents, distribution installed on each print server. Print content files stored in each print server	
The HTTP service	The Print server	Provide print content view, reprint the document, auxiliary management and distributed coordination, with print monitoring service installed on each print server	



3.2 General framework schematically



- PrintUsage deployment method scalability is very strong, all modules can be installed on a server, can adapt to the distributed installation, and depends entirely on the customer's existing environment and application requirements.
- The central database and Web management only need to install once.
- Print monitoring service and HTTP service according to the need, install each connection has a printer on the print server.
- Print users and manage client don't need to install any of the PrintUsage module.

4. System operation requirements

4.1 Overview

PrintUsage is flexible print monitoring solution, operation requirements according to print volume, the number of servers and performance requirements of different to change.

PrintUsage system environment:

Operating System	Windows 2003/7/2008/2012 32 bit or 64 bit
Database	SQL Server 2000 SP4/ 2005/2008/2012



Web server	IIS 6.0/7.0(7.0 need to install the IIS 6.0 compatible
web server	management)

4.2 The recommended configuration

The database server(1)

Hardware:P4 2.0G CPU,512M RAM,5G hard disk space (Can be shared with management server) The operating system: Windows Server 2003/ 2008

Database management systems and components:

MS SQL SERVER: Microsoft SQL Server 2000 SP4,2005/2008/2012.

The management server(1)

Hardware:P4 2.0G CPU,512M RAM,5G hard disk space(Can be Shared with the database server) The operating system:Windows Server 2003/ 2008,IIS 6.0,If this is the IIS 7.0 or higher need to install the IIS 6.0 compatible console.

The Print server (1 or more)

Hardware: P4 2.0G CPU, 512M RAM, 20G The above free hard drive space The operating system: Windows Server 2003/ 2008

Recommend operating system is Windows 2008 server.

Client

Hardware: Anything that can run Windows client

Software: Print customer-without any special requirements, as long as the Windows client can print to the Shared printer

Manage customer-IE Windows client or Firefox 8.0 more than 20.



5. Printer compatibility

Common tasks Monitoring: Support for all supported Windows 2003/7/2008/2012 printers, including one machine or plotter.

- Part of Epson Stylus series printer quota control function is invalid.
- Support all the monitored task of paper types, color, black and white, Single-Duplex and other property records accurate.

Content is saved as image format:

- If using the original drive deployment, Support PCL and PostScript language driver printers. At present, HP, Lexmark, Xerox, Samsung, Sharp, Ricoh series of laser printer can be the perfectly supported. If printer not any brand above, or is not a laser printer or USB interface, may not support saving the Print content.
- If Use the PrintUsage generic driver deployment, support all brands equipment output and print the content view. Save content as reprint file format:
- Support various types of printers, in addition to the part of the Epson printer series.
- Special note: not all printers can save the content, usually PS, PCL5e, PCL6; EMF driver can analyze its content, etc. But not all, please refer to our actual test
- If user has any special request on the printing contents, please use PrintUsage generic driver.



6. Deployment Planning

6.1 Printing method

6.1.1 The company's existing print mode

At present the company printing, is through one of the following three ways, or their combinations:

(1) Network Printer - network print methods

Each print client establishes based on TCP / IP port of a local printer to print to the network printer. This way of printing doesn't need a dedicated computer as a print server.

(2) network printer - Shared print method

In a dedicated Windows server, install local printer based on TCP/IP port, and share, to provide printing services. This way requires more use of a computer, but some managerial functions, the network cannot replace the print way.

(3) Traditional printer-Shared print method

Use department server or someone working machine, connect the LTP or USB printer and share, to provide the department or the nearest office users to print. This is the most convenient and flexible way, but is difficult to print management.

6.1.2 PrintUsage printing method

PrintUsage can be monitored in the printing way⁽²⁾(3),does not support (1). Does not support network printing,Does not mean that a network printer cannot use PrintUsage monitoring, as long as converted into the shared print mode, can realize perfect monitoring, the following will introduce how to remodel.

6.1.2.1 Transform the network print way for sharing printing

If user wants to deploy PrintUsage, need to change the network printing to share printing, the specific approach is:

- (1) Use one (or more) dedicated computer (A PC also can be A Server), install local printer based on TCP/IP port, and Shared out, as a print server, and installed the PrintUsage on these computers.
- (2) Each client to delete the original TCP/IP port printer, to connect the Shared printer for printing on the print server.
- (3) With this transformation, printed data streams through have been installed the PrintUsage computer, so it can achieve the print task of monitoring and controlling
- (4) But after doing this, someone who has a technical basis, can still through the creation of TCP/IP port local printer to print, data flow without through print server, sent directly to the network printer, thus bypassing the monitoring. So, need to network printer or set on the outer print server, only allow IP connection from the print server, IP connection from the client is not allowed.



6.2 Authentication mode

PrintUsage is a full print billing system, the key for billing is to record each print is "who", playing the "who" is the user authentication. PrintUsage provides two kinds of user authentication:

According to the user name authentication	This way set the user name sent to the print job as a basis for billing and control. If a user is logged on with a domain user account, then this is the domain user name, otherwise the machine user name. This way is
	This way is suitable for "domain" or "active directory" network model.
According to the computer name authentication	In this mode, users use the username of the machine to login, but the local login name on the print server and not recognized. Each print task is recorded as "Guest" users to print, so the computer name is used for printing the basis of billing and control. This way is suitable for peer to peer network mode.

6.3 Selection database

PrintUsage currently supports three kinds of commonly used database. Select the database mainly depends on the print size and print architecture, details in below table:

Туре	Instructions	Suitable size	Considered point
Access	Free file-type	Stand-alone installation	Free, simple installation, only Single
	database	Monthly print volume	machine use
		<5000 pages	> 5000 record efficiency bottleneck
MSSQL	Large and	Distributed installation	Does not need to install any database
	medium-sized	Monthly print volume	connector on the print server
	commercial	<500000 pages	Cost-effective, easy to use, easy to
	database		manage and maintain,
			Stable performance
			Recommended to use
	MSDE	Distributed installation	Free, desktop version of MSSQL
		Monthly print volume	Management, backup slightly
		<50000 pages	inconvenient
MySQL	A free, open	Distributed installation	Free, when a small amount of data the
	source of	Monthly print volume	efficiency is very high
	small and	<200000 pages	Cross-platform ability
	medium-sized		Needs of each print server installation
	database		MyODBC
It is recommended to use MS SQL SERVER 2000 SP4 above. SQL SERVER EXPRESS is also			
a good choice.			

The database selection reference table

6.4 Storage space planning

PrintUsage mainly focused on two aspects to the demand of storage space:Database and print content file(Enterprise edition only).

The database server:

Database is mainly used for storing print log and configuration information, print log grows along with time. But each log takes up less than 1 k, the entire database in extreme cases, rarely more than 1 G.



The management server:

Some pages files and temporary files, when viewing the print content cache files requires very little hard disk space, 1 GB space which is enough.

The Print server:

(Enterprise edition only)Will save each print content and kept on each print server. Please note that this feature, the requirement on the print server, according to the size of the print, planning and hard disk space. Specific estimation methods are as follows:

Needed hard disk space=Monthly print volume* content should be preserved the months * number of bytes each the saved file

When PrintUsage save printing content are images, will use the high compression ratio Tiff format G4, precision can vary from 75 dpi to 600 dpi,Bytes per A4 print files from an average of 10 k to 200K, depending on the printout and save the precision. The default resolution is 300 dpi, estimates of 30K per page.

We assume that a print server, a monthly print volume 100,000 pages, need to save the contents of three months, so

Need to hard disk space = (100 k/month) * (three month) * (30 K) = 9G

If PrintUsage saved reprint document options, reprint the document space is larger than the Tiff format (its size depends on the content of the print documents and printer type), the average per A4 printing reprint the document, usually ranging from dozens to hundreds of K, estimates desirable 100 K per page.



7. PrintUsage detailed installation instructions

7.1 Preparation of the installation

7.1.1 Uninstall previous PrintUsage version

Suggest uninstalling the old version or trial version before installing PrintUsage. The installers itself also detects and automatically uninstall the existed PrintUsage. Uninstall program will retain the original version of the database and print content file, the default is as follows:

- 1. If use Access database as the original version will stay file:C:\Program Files\PrintUsage\Data\PrintUsage.mdb,this is the original version of the database...
- 2. Using MSSQL or MYSQL database on the database server.
- 3. If the installation is the enterprise edition, save the file C: \ Program Files \ PrintUsage \ the Content directory, this directly stored all the print Content files. For convenient upgrade in the future, it is recommended that this directory will be set up in other place, do not set in under the same directory of PrintUsage.

If user wants to keep the original data and print content files, please don't delete these files and directories. When user install the new version, simply install into this directory can be covered(The installer will prompt PrintUsage directory already exists, confirm to continue).

If user wants a fresh installation, no need to retain the original data, user can delete the C: \ Program Files \ PrintUsage directory delete. If it is MSSQL or MYSQL database, can delete the PrintUsage database in database manager.

7.1.2 Ensure that the used database server has been installed and running

Access: the installation package will automatically install.

MSSQL: User should select user authentication mode as the "mixed mode" during installation, detail info see" SQL Server installation considerations". Recommend to use: SQL SERVER, can also use SQL SERVER EXPRESS.

7.1.3 Install the appropriate database provider

If user chooses to use the Access and MSSQL/MSDE, skip this step;

If user chooses to use MySQL, user need to install MyODBC, go to MySQL's official website free download: http://dev.mysql.com/downloads/.

7.1.4 Install IIS components

For Windows Server 2003 IIS is installed by default for Windows 2003 Standard Edition, Enterprise Edition, 7, 2008, the default is not installed; user needs to add IIS system components.

Noted that, after Windows 7.user need to install IIS6.0 Management Compatibility.

Note: If installed IIS in win7 and Win2008, after the installation is complete need to install IIS6 to management compatibility and .NET Framework 3.5.1.User can in Start -> Control Panel ->



Programs -> Turn Windows features on or off to find them. Please ticked refer the below red draw circle in turn then click the OK button to complete the installation of these components.



Detailed installation steps, please see section "Frequently Asked Questions".

7.1.5 Adding firewall exception

If user have firewall and opened the firewall in system, please make sure that open the operating system TCP80, 8100, 8200, 8090, 8200, 8082, 8300, 8600, UDP8600 port.

7.1.6 Preparations list

Preparations	Annotation
Uninstall previous PrintUsage	Uninstall PrintUsage previous versions or trial version
Make sure the used database has been	Ensure that the database can be used normally



installed and running successfully	
Install the appropriate database provider	Database connection parts need database vendors provide support program
Install IIS components	Win7 and Win2008 system need to install IIS 6 compatible management
Adding firewall exception	In operating system to ensure open the port such as TCP80,8100,8200,ect

7.2 Start the installation



Perform PrintUsage installation package, user must have this computer administrator privileges before installation. It is strongly recommended before the installation continue please close other running applications, so as to avoid conflict in the process of installation.



🚰 PrintUsagePro 4.0 Enterprise 20140911 Setup			
License Agreement Please review the license terms before installing PrintUsagePro 4.0 Enterprise 20140911.			
Press Page Down to see the rest of the agreement.			
THE PROGRAM IS COPYRIGHTED AND LICENSED (NOT SOLD). BY PURCHASING THE PROGRAM, YOU ARE ACCEPTING AND AGREEING TO THE TERMS OF THIS LICENSE AGREEMENT. THIS LICENSE AGREEMENT REPRESENTS THE ENTIRE AGREEMENT CONCERNING THE PROGRAM, BETWEEN YOU AND AMAX INFORMATION TECHNOLOGIES, INC., (REFERRED TO AS "V"), AND IT SUPERSEDES ANY PRIOR PROPOSAL, REPRESENTATION, OR UNDERSTANDING BETWEEN THE PARTIES.			
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install PrintUsagePro 4.0 Enterprise 20140911.			
 I accept the terms of the License Agreement; I do not accept the terms of the License Agreement 			
http://www.printusagepro.com			
< <u>B</u> ack <u>N</u> ext > Cancel			

Read the license agreement please read the End User Software License Agreement carefully, user must accept the agreement to continue the installation.

🚰 PrintUsagePro 4.0 Enterpris	e 20140911 Setup			
Choose Components Choose which features of PrintUsagePro 4.0 Enterprise 20140911 you want to install.				
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.				
Select the type of install:	Full Installation 💌			
Or, select the optional components you wish to install:	 ✓ PrintUsagePro Web Mana ✓ Print Service 	Description Position your mouse over a component to see its description.		
Space required: 141.2MB				
http://www.printusagepro.com				
	< <u>B</u> ack	Next > Cancel		

Select the components user want to install, user can install on the same server or choose distributed installation. The following detailed explain the difference between different installation type.

7.2.1 Full Installation

Full installation method installs the printUsagePro web management and print server on the same



computer. The following two cases, user should choose this kind of installation method:

- 1. If user only have a print server, and just want to use the print server as the management server, or just want to try out PrintUsage, should choose "full installation".
- 2. This machine is one of the print servers, and user wants this server as management server.

Note: if user are the second condition, that is, if there are any other print server need to be installed, then user cannot choose the Access database, only MSSQL, MSDE and MySQL database can be choose. If it is the first kind of circumstance, user can choose any kind of support of the database.

7.2.2 Management Server Installation

🚰 PrintUsagePro 4.0 Enterpris	e 20140911 Setup					
Choose Components Choose which features of PrintUsagePro 4.0 Enterprise 20140911 you want to install.						
Check the components you war install. Click Next to continue.	Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.					
Select the type of install:	Management Server 💌					
Or, select the optional components you wish to install:	PrintUsagePro Web Mana	Description Position your mouse over a component to see its description.				
Space required: 62.6MB	T					
http://www.printusagepro.com						
< <u>B</u> ack <u>N</u> ext > Cancel						

Management server installation, the management server is installed on a separate computer. The computer is no longer used as print server. When deployed to print monitoring service, user only needs to install a management server. During installation, the installation wizard will help user to create the database structure and user accounts, such as initial setup configuration. After the management server installation is complete, user also need to install at least one "print server" to make the system work normally.

Note: The Management Server installation cannot select the Access database, MS SQLSERVER and MySQL can only choose one of them The database server can use this machine also can be another computer. The installer is only generate the PrintUsage data table structure, does not contain a database management system itself.



7.2.3 Print Service Installation

🚰 PrintUsagePro 4.0 Enterpris	se 20140911 Setup		×		
Choose Components Choose which features of PrintUsagePro 4.0 Enterprise 20140911 you want to install.					
Check the components you wai install. Click Next to continue.	nt to install and uncheck the comp	onents you don't want to			
Select the type of install: Or, select the optional components you wish to install:	Printserver Installation ▼ PrintUsagePro Web Mana Print Service	Description Position your mouse over a component to see its description.			
Space required: 79.9MB	<pre> • • • • • • • • • • • • • • • • • • •</pre>				
http://www.printusagepro.com —	< <u>B</u> ack	Next > Cancel			

Print server installation, it will installed the print monitor in a separate computer. The print server to accept the management server Unified management. After the installation complete, the print server will explore to try to automatically find Management server through the network and connect with them. Normal circumstances, after the installation completed no configuration needed to start print monitoring service. If there is no automatic discovery management server, need to manually configure print monitoring service, specific please refer to 7.3 for associated Settings.

Choosing components required to install, click next.

🚰 PrintUsagePro 4.0 Enter	prise 20140911 Set 🔀				
Microsoft.Net framework 4.0 can not find Do you want to download it					
Yes	No				

Provide Microsoft.Net Framework4.0 does not exist, user need to download and install it or directly installing the downloaded components.



🚰 PrintUsagePro 4.0 Enterprise 20140911 Setup 📃 🔲 🗙				
Choose Install Location Choose the folder in which to install PrintUsagePro 4.0 Enterprise 20140911.				
Setup will install PrintUsagePro 4.0 Enterprise 20140911 in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation.				
Destination Folder C:\Program Files\PrintUsagePro				
Space required: 125.5MB Space available: 1.6GB				
http://www.printusagepro.com < <u>B</u> ack <u>I</u> nstall Cancel				

Choose the PrintUsage installation path, click install for the next step. If the operating system is not installed VC10, user need to install.

Microsoft Visual C++ 2010 x86 Redistributable Setup
Welcome to Microsoft Visual C++ 2010 x86 Redistributable Setup Please, accept the license terms to continue.
MICROSOFT SOFTWARE LICENSE TERMS
MICROSOFT VISUAL C++ 2010 RUNTIME LIBRARIES
I have read and accept the license terms.
Yes, send information about my setup experiences to Microsoft Corporation.
For more information, read the <u>Data Collection Policy</u> .
Install Cancel



7.3 Relevant settings

7.3.1 Select Install License

🖉 Print Usa	gePro Wizard				
Ē	PrintUsage	Pro V4.0 B	uild20140	911	
License S	etting				
C Auth	lays Trial zes three printers to be n to the correct printers bu rupted service. lorized usage requires Re	onitored for a 20 day the print monitoring g code	evaluation period. Ai service is disabled. P	fter the 20 days, j urchase a license	print jobs will still be code for
			Cancel	Previous	Next

Trial user, please select "20 days trial ".Trial license can be fully functional trial 20 days, limit monitoring three printers. After the trial expires, the print monitoring service will not start, but not affect the user to print, just cannot catch a new print job. Web site management can still login and use normally.

After the official version of the user selected the "Authorized usage requires Reg code" user need to enter your registration code information, the installation program will automatically display the registration number of the authorization information in the "licensed to" text box, in general, should be your company's full name.

7.3.2 The database type selection and connection Settings

Choose what type of database, depending on the amount of data and application requirements, please refers to 6.3 sections.

• Access type configuration



PrintUsagePro Wizard	_ 🗆 🗙
PrintUsagePro V4.0 Build20140911	
Database and Connection Settings	
Please select the database: Access, SQL Server 2000/2005/2008, Or MySQL 5.0. You should enter the user name and password of database administrator.	
Access	
Select Access only when: The website manager and print monitoring service are installed on the same computer with a trial versio Otherwise, please choose other databases, MSSQL recommended.	n.
Cancel Previous	Vext

Access database does not require any configuration, simply select "Microsoft Access 2000 / XP". The installer will create an empty database named PrintUsage.mdb in a subdirectory under the installation directory of Data.

• MSSQL/MSDE Configuration



🖗 PrintUsagePro Wizard	
PrintUsagePro V4.0 Build20140911	
Database and Connection Settings	
Please select the database: Access, SQL Server 2000/2005/2008, Or MySQL 5.0. You should enter the user name and password of database administrator.	
Microsoft Sql Server	
Server Name	
Username	
Password	
Test Connection	
Cancel Previous	Next

MS SQL Server 2000 SP4/ 2005,SQL SERVER EXPRESS database need to select "Microsoft SQL Server". Server name is the installed MS SQLSERVER computer name or IP address (strongly recommend the use of IP address) corresponding to the instance name. Username server has an account on the SQL Server database administrator privileges, normally use "sa".(If user can't use "sa", at least need a privileges to create database login account)Here is not a Windows account. Password is the SQL login account password, pay attention to the case.

When Input is completed, click on the "Test Connection" button, if test passed, then click "next". If the test fails, please make sure the inputs are correct, and MSSQL service is running. If the input is computer name, user needs to ensure that the computer name can be parsing correctly.



苍 PrintUsagePro Wiza	rd		_ 🗆 🗙
C Print	UsagePro V4.0 Build2014(0911	
Database and Connect	ion Settings		
Please select the dat You should enter the	abase: Access, SQL Server 2000/2005/2008, Or MySG user name and password of database administrator.	QL 5.0.	
Microsoft Sql Serve	r 🔽	Connection success!	
An existing data fou	nd, please select install mode! O Create O Update	OK	
Server Name	192.168.120.10		
Username	Sa		
Fassword			
Test Connection			
	Cancel	Previous	Next

No matter what type database used, if the installation program found the original database exists, it will be prompted to select, prompts user to cover the original data. Select "Create", the installer will delete the original database, a new installation. If user selects "Update", the system will retain the original data. If the original data is the structure of the old version, the installation program will automatically upgrade to the latest version, and data will not lost.

After select "Update", because the user data, such as configuration information is already in the database, unless user need to modify, otherwise in the installation wizard steps, such as import users, set the default value can choose to skip.



7.3.3 Select Web server

💣 PrintUsagePro Wizard				
PrintUs	sagePro V4.0	Build20140	911	
Select Web Server				
Cassini				
Port	8090			
O IIS				
Virtual Directory	PrintUsage			
		Cancel	Previous	Next

The default is Cassini, if need to use IIS for deployment, please see 7.1.4 section.



7.3.4 Printer Server settings

🚰 PrintUsagePro Wizard		_ 🗆 X
PrintUsage	ePro V4.0 Build20140911	
Print Server Settings		
Manager Center Port	8300 Data Server that record print detail job information.	
Normal Print Server Port	8082 Normal print monitor service that use Raw protocal for printing.	
Advanced Print Server Port	8081 Advanced print monitor service that use LPD protocol for printing.	
Http Server Port	8100 Http Server that monitor print monitor services.	
	Cancel Previous	lext

Please ensure that the firewall settings are correct when users configure the port, and these ports can be monitored normally.



7.3.5 Select Print Content save Path

PrintUsa	gePro Wizard						
Ē	PrintUs	agePro V4	1.0 Bu	ild20140	911		
Select Prin	nt Content Save Pa	ath					
C:\Prog	gram Files\PrintUs	agePro\content				Browse	
					-		
				Cancel	Prev	ious	Next



7.3.6 Configuration item overview

k	PrintUsagePro Wizard	_ 🗆 X
	PrintUsagePro V4.0 Build20140911	
	Finish Setup Wizard Wizard Settings Result: - Cost of black and white printing = \$0.1, color \$0.5 - Unlimited quota and default quota for each user = \$100 - Login account for the website management is "admin" with a blank password - Using Cassini as Web Server - Click Finish to complete the wizard	
	Cancel Previous F	inish



7.3.7 User import tool

Ć	UserInfoImport	
	Ć	User information import
	Select User Im	nport Mode
	Select I	mport Mode Domain or Computer mode I need import CardID Property Name of CardID: AuthMode © User Update Exist User © Yes No
		D Import User Information From Database
		<u>Exit(E)</u> Next(N)

Authentication mode selection: Refer to 6.2 section;Basic rule is domain or active directory, select "Domain or a Computer mode", choose AuthMode as "User"; Peer-to-peer network working group, choose AuthMode as "Computer".

Select the user authentication, the default will be imported to user groups and user account from the active directory.

Select the Computer authentication,Installer will traverse of all working group on the net, the workgroup name as user group name, set computer name as the user account import to the system. Note: only opened machine computer can be imported. No imported computer, after the installation is complete, In Web management site can manually to add.

Select the "user authentication", the default from activities also can import from a file, the file format support XLS, XLSX, CSV, TXT, the format of the file needs to be a line, each user account to allow user id, user name, User Full Name, user groups, card number, email address five field, field between half Angle in English ", "catalog segmentation into user groups and user account. Here is an example:

Tom, Tom Cruse, Personnel Department, 123456, Tom_ Cruse@printusage.com Jean, Jean Leo, sales Department, 654321, Jean_ Leo @printusage.com Jack, Jack Hanks, sales Department, 555555, Jack_Hanks@printusage.com

After such a TXT or CSV file to import, the system will be established two user groups the personnel and sales departments, Zhang, Wang, Li three user, Zhang belongs to the personnel department, Li and



Wang belongs to the sales department. This way very suitable for when the domain of grouping and cost accounting group without corresponding, can export account from personnel system or the management system and import into the PrintUsage.

In addition, the import tool also supports importing from a database; currently supported database type is Access, SQL Server.

7.3.7.1 Basic Settings

"Whether to update existing users", select "Update", In user attributes as card number, email address information is consistent with the data source; If choose "no update", User attributes the card number, email address information remains the same. Worth mentioning is that whether-choose update user group or not, will be consistent with the current data source.

7.3.7.2 From Domain or Computer

"I need to import the card number", memory card number by a field from the domain import into the database, fill the corresponding field name in "card corresponding attribute name."

1)OU Mode:According to the domain organization unit imported

C UserInfoImport	
User information import	
Import user information from domain or NT mode	
Mode Selection	
 OU Mode (From Domain) Whether to import the subdomain data 	
NT Group Mode (From Domain or Computer)	
Mixed Mode (Domain OU & NT Group)	
Exit(<u>E</u>) Previoius(<u>F</u>	2) Next(N)

"Whether to open the automatic synchronization", checked open.



"Auto sync interval time setting", Can follow the daily / weekly / monthly / quarterly / annual user synchronization. If the selected day, expressed next morning to start the synchronization, the synchronization time can be set in the configuration file.

"Synchronous method "expressed the increment based on the data source added, PU database also increased; Delete the data source, PU database unchanged. Based on the difference, said data source increased, PU database also increased; data sources deleted, PU database corresponding deleted.

VserInfoImport	×
User information import	
Set the Synchronize Mode	
Auto synchronize on Auto synchronize period setting: Monthly	
Base On O Increment O Difference	
Exit(E) Previoius(P) Next(N)	

Select the root node, select only after load the root node and it's all subgroups, click next after selection.



Content information import	
C User informat	tion import
Select the group to be imported	Invoke Multiple Group Function
·····································	
Load OU Group Successfully!	Exit(E) Previoius(P) Next(N)

Confirm that user needs to import the user group, click next.



C User information import	
<i>User information import</i>	
Selected group(s) to be imported	
Loading user group Exit(E) Previoius(P)	Next(N)

Choose the required import users, click next after confirmation.



Contemport Verland Verland		
User informa	ation import	
Select the User to be imported		
 		
	Exit(E) Previoius(P Import(I)

Click Import to perform operations.

2)NT mode:NT Group the local account imported

Generally applicable to the environment without using a domain account to deploy. Click next to synchronize settings page.

"Whether to open the automatic synchronization", checked open.

"Auto sync interval time setting", can follow the daily / weekly / monthly / quarterly / annual user synchronization. If the selected day, expressed next morning to start the synchronization, the synchronization time can be set in the configuration file. If the selected month, expressed early morning start on the 1st of the month, the synchronization time can be set in the configuration file.

"Synchronous method "expressed the increment based on the data source added, PU database also increased; Delete the data source, PU database unchanged. Based on the difference, said data source increased, PU database also increased; data sources deleted, PU database corresponding deleted.



C UserInfoIm	port	-	
Ć	User informatio	n import	
Set	the Synchronize Mode		
	Auto synchronize on Auto synchronize period setting:	Monthly	
	Base On O Increment	Oifference	
	(Exit(E) Previoius(P)	Next(N)

Select the groups need to be imported.

User information import	fc	ormation im	port	
Select the group to be imported				
Group	*		Group	
Performance Monitor Users			РМ	
Pre-Windows 2000 Compatible A		->	Print Operators	
RAS and IAS Servers				
Read-only Domain Controllers		->>		
Remote Desktop Users				
Replicator				
Schema Admins		<-		
Server Operators				
Terminal Server Computers	Ε	<<-		
Terminal Server License Servers				
Users	Ŧ			
4			< III	۲.
Load NT Group Successfully!		Exit(E)	Previoius(P)	Next(N)



Click next to import users.

•

\langle	User	ΙΠΤΟΙ	mation in	ηροιτ		
Select the Us	erto be impor	ted				
UserName	Full Name	Group		User Name	Full Name	Group
				cherry	Cherry	PM
				connie	Connie	PM
			->	emma	Emma	PM
				henry	Henry	PM
			->>	jeff	Jeff	PM
				joey	Joey	PM
			<-	pytia	Pytia	PM
				tim	Tim	PM
				tk	Tk	PM
				vicky	Vicky	PM

Click Import to complete the operation.

7.3.7.3 File Import

Current document does not support automatic synchronization.



🯹 UserInfoImp	port	- - X
Ć	User information import	
Set	the Synchronize Mode)
	Auto synchronize on Auto synchronize period setting:	
	Base On O Increment O Difference	
	Evit/E) Previoius(P)	Next(N)

Load documents required to import and select the appropriate field name.

File	Edit	Format	View	Help
User	Name	,UserF	ullna	me,GroupName,UserEmail,CardID
TOM,	TOM	Cruse,	HR, TO	m_Cruse@printusage.com,12345678
Jear	n,Jea	n Leo,	5ales	,Jean_Leo@printusage.com,87654321
Jack	c, Jac	k Hank:	s,HQ,	Jack_Hanks@printusage.com,55555555



UserInfoImport	
رک کې	lser information import
Import User In	formation From File
UserName:	UserName
UserFullName:	UserFullName
GroupName:	GroupName
Email Address:	UserEmail
Card ID:	CardID
Select file to	import
File Path:	E:\UserInfo.txt Browse
	Exit(E) Previoius(P) Import(I)

Click Import to complete the operation.

7.3.7.4 Database Import

"Whether to open the automatic synchronization", checked open

"Auto sync interval time setting", user can follow the daily / weekly / monthly / quarterly / annual user synchronization. If the selected day, expressed next morning to start the synchronization, the synchronization time can be set in the configuration file. If the selected month, expressed early morning start on the 1st of the month, the synchronization time can be set in the configuration file.

"Synchronous method "expressed the increment based on the data source added, PU database also increased; Delete the data source, PU database unchanged. Based on the difference, said data source increased, PU database also increased; data sources deleted, PU database corresponding deleted.



🦉 UserInfoIm	port
Ć	User information import
Set the Syr	nchronize Mode
	Auto synchronize on Auto synchronize period setting: Monthly
	Base On O Increment O Difference
	Exit(E) Previoius(P) Next(N)

Set the database connection and configure the appropriate fields.

	ser information import	×
Import User Inform	nation From Database	
User Information	LineName Euli Name: FullName -	
UserName:		
GroupName:	Groups Card ID: Card	
Email Address:	EMail	
Data Source		
Database Type:	Microsoft SQL Server Table: UserList	
Server name	192.168.120.10 Database Port	
User Name	sa Password ••••••	
Database	PrintUsage Windows Authentication Connect	
	Exit(E) Previoius(P) Import(I)	



Click import button to complete.

7.4 Complete the installation

PrintUsage related services will start automatically after the installation complete, and PrintUsage have successfully installed on your server.

8. Frequently Asked Questions

8.1 Configuration PRINTUSAGE in IIs 6

8.1.1 Install IIS

🐻 Add or Re	move Programs
	Windows Components Wizard
C <u>h</u> ange or Remove Programs	Windows Components You can add or remove components of Windows.
Add <u>N</u> ew Programs	To add or remove a component, click the checkbox. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details. <u>C</u> omponents:
Add/Remove <u>W</u> indows Components	Internet Explorer Enhanced Security Configuration 0.0 MB Management and Monitoring Tools 10.8 MB Microsoft .NET Framework 2.0 150.0 MB Networking Services 2.7 MB Other Network File and Print Services 6.4 MB Description: Includes Windows Accessories and Utilities for your computer. Total disk space required: 4.0 MB Space available on disk: 25475.8 MB
	< <u>B</u> ack <u>N</u> ext > Cancel Help



🐱 Add or Ren	Windows Components Wizard
C <u>h</u> ange or Remove	Windows Components You can add or remove components of Windows.
Add New Programs	To add or remove a component, click the checkbox. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details. Components:
Add/Remove <u>W</u> indows Components	✓ Accessories and Utilities 4.9 MB △ Active Directory Services 16.7 MB ✓ ✓ Application Server 34.4 MB ✓ ✓ ✓ Image: Services 1.8 MB ✓ ✓ Distributed File System 0.1 MB ✓
	Description: Includes ASP.NET, Internet Information Services (IIS), and the Application Server Console. Total disk space required: 14.8 MB Space available on disk: 25474.5 MB Cencel Help

🐞 Add or Rer	pove Drograme	
	Windows Components Wizard	×
	Application Server	33
C <u>h</u> ange or Remove Programs	To add or remove a component, click the check box. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details.	Ð
	Subcomponents of Application Server:	
	🗹 🚡 Application Server Console 0.0 MB 🖂	
Add New	🗆 🎭 ASP.NET 0.0 MB	
Programs	☑ 🚱 Enable network COM+ access 0.0 MB	
	Enable network DTC access 0.0 MB	
	🗹 🎀 Internet Information Services (IIS) 27.4 MB	
Add/Remove	🗆 🚅 Message Queuing 7.0 MB	
Windows	▼	
Components	Description: IIS Includes Web, FTP, SMTP, and NNTP support, along with support for FrontPage Server Extensions and Active Server Pages (ASP).	
	Total disk space required: 14.8 MB Details	
	Space available on disk: 25474.5 MB	
	OK Cancel	
	< <u>B</u> ack <u>N</u> ext > Cancel Help	

8.1.2 Enable ASP.NET in IIs

In Windows 2003 enable ASP.NET





8.1.3 Creating virtual directory

🐚 Internet Information 9	Services (IIS) Manager		
🐚 Eile <u>A</u> ction <u>V</u> iew <u>V</u>	<u>V</u> indow <u>H</u> elp		_ 5 ×
← → E X	r d B) 😫 🖬 💂	▶ ■ Ⅱ	
Internet Information Serv BLAIRCYY (local comp Application Pools Composition Web Sites Composition Default Web Web Service Ext	vices puter) Name iisstart.htm pagerror.gif Explore Open Permissions Browse Start Stop Pause	Path	Status
Create new Web Virtual Direc	New All Tasks View New Window from Here Delete Rename Refresh Export List Properties Help	Web Site Web Site (from file) Virtual Directory Virtual Directory (from file)	



	and the second
irtual Directory Alias Specify a short name, or alias, for t	this virtual directory.
Type the alias you want to use to g same naming conventions that you	gain access to this Web virtual directory. Use the u would for naming a directory.
PrintUsage	
	< <u>B</u> ack <u>N</u> ext> Cancel
ual Directory Creation Wizard	
eb Site Content Directory	
Where is the content you want to p	oublish on the Web site?
Where is the content you want to p Enter the path to the directory that Path:	contains the content for this Web site.
Where is the content you want to p Enter the path to the directory that <u>Path:</u> C:\Program Files\PrintUsagePro\A	contains the content for this Web site.
Where is the content you want to p Enter the path to the directory that Path: C:\Program Files\PrintUsagePro\A	contains the content for this Web site.
Where is the content you want to p Enter the path to the directory that <u>Path:</u> C:\Program Files\PrintUsagePro\A	contains the content for this Web site.
Where is the content you want to p Enter the path to the directory that <u>P</u> ath: C:\Program Files\PrintUsagePro\A	contains the content for this Web site.
Where is the content you want to p Enter the path to the directory that Path: C:\Program Files\PrintUsagePro\A	contains the content for this Web site.
Where is the content you want to p Enter the path to the directory that Path: C:\Program Files\PrintUsagePro\A	contains the content for this Web site.
Where is the content you want to p Enter the path to the directory that Path: C:\Program Files\PrintUsagePro\A	contains the content for this Web site.
Where is the content you want to p Enter the path to the directory that <u>Path:</u> C:\Program Files\PrintUsagePro\A	contains the content for this Web site.
Where is the content you want to p Enter the path to the directory that <u>Path:</u> C:\Program Files\PrintUsagePro\A	contains the content for this Web site.



ual Directory Access Permissio Set the access permissions for this v	ns irtual directory.	
Allow the following permissions:		
☑ <u>R</u> ead		
🔽 Run <u>s</u> cripts (such as ASP)		
Execute (such as ISAPI applicati	ons or CGI)	
Vite Vite		
☐ Br <u>o</u> wse		
To complete the wizard, click	Next .	
	(Back Nevt	

8.1.4 Configuration Properties

A Print Isage		3
ADD G	Explore	
	<u>O</u> pen	
	Permissions	
🗄 🭎 ChartI	Browse	
🗄 🕖 Clients	New	
🕀 🕖 Contro	All Tacks	
🗄 🏉 Downli _	All 1855	
🗄 📁 Export	⊻iew	
🗄 🕖 Group	New Window from Here	
🗄 🝎 Help 🗧	····· 4 ·····	-
🗄 🦳 Home	Delete	
🗄 🭎 Image	Refresh	
🗄 🍎 JS	Export List	
🗄 📁 Lexma		
🗄 🥘 Log 📘	Properties	
	Help	



	1 1	
Virtual Directory	Custom Errors	ASP.NET
The content for this re		Directory Secondy
	A directory located on this computer	
o.	A share located on another computer	
C.	A redirection to a URL	
.o <u>c</u> al path: C: 	\Program Files\PrintUsagePro\Avalon	Br <u>o</u> wse
Script source acces:	s IV Log visits	
✓ <u>R</u> ead	I. Turey and the source	
Directory browsing		
Application settings		
Application name:	PrintUsage	Remove
Starting point:	<default site="" web="">\Print</default>	
Execute <u>p</u> ermissions:	Scripts only	Configuration
Application pool:		Unload
Usage Properties		
Virtual Directory	Documents	Directory Security
HTTP Headers	Custom Errors	ASP.NET
Microsoft		
	net	
	let	
	1et	
	1et	
Microsoft ASP.(1et 4.0.30319	
Microsoft ASP.(5P.NET version: rtual path:	4.0.30319 /PrintUsage	
Microsoft ASP.() 5P.NET version: rtual path:	4.0.30319 /PrintUsage	ageProj@valopiweb.co
Microsoft SP.NET version: rtual path: e location:	4.0.30319 /PrintUsage C:\Program Files\PrintUsa	 agePro\Avalon\web.co
Microsoft SP.NET version: rtual path: le location: e creation date:	4.0.30319 /PrintUsage C:\Program Files\PrintUsage 2014-9-11 10:17:56	agePro\Avalon\web.co
Microsoft SP.NET version: rtual path: e location: e creation date: e last modified:	4.0.30319 /PrintUsage C:\Program Files\PrintUsage 2014-9-11 10:17:56	agePro\Avalon\web.co
Microsoft SP.NET version: rtual path: e location: e creation date: e last modified;	4.0.30319 /PrintUsage C:\Program Files\PrintUsa 2014-9-11 10:17:56 2014-9-11 10:17:56	agePro\Avalon\web.co
Microsoft SP.NET version: rtual path: e location: e creation date: e last modified:	4.0.30319 /PrintUsage C:\Program Files\PrintUsage 2014-9-11 10:17:56 2014-9-11 10:17:56 Edit. Con	agePro\Avalon\web.co



📣 PrintUs=		
E AC	Explore	
E AC	Open	
E bir	Permissions	
🗄 🍎 Ct	Browse	
🗉 🕖 Cli	New	•
E CC	All Tasks	
+ Dc	Carl Carl	

8.2 Configuring PrintUsage in IIS7

8.2.1 Install IIS

For Windows Server 2003 IIS is installed by default for Windows 2003 Standard Edition, Enterprise Edition, 7, 2008, the default is not installed; user needs to add IIS system components.

Noted that, Windows 7.user need to install IIS6.0 Management Compatibility.

Note: If installed IIS in win7 and Win2008, after the installation is complete need to install IIS6 to management compatibility and .NET Framework 3.5.1.User can in Start -> Control Panel -> Programs -> Turn Windows features on or off to find them. Please ticked refer the below red draw circle in turn then click the OK button to complete the installation of these components.





8.2.2 Create an application pool

In Windows 7/2008 create an application pool. Named as PrintUsage or other names. Choose v4.0.



Add Application Pool
Name:
PrintUsage
.NET Framework version:
.NET Framework v4.0.30319
Managed pipeline mode:
Integrated 💌
Start application pool immediately
OK Cancel

The application pool, advanced settings.

NETWORKSERVICE. "Enable 32-bit applications" is set to true;Identity is set to NETWORKSERVICE.

Adv	anced Settings		?	x
E	(General)			•
	.NET Framework Version	v4.0		
	Enable 32-Bit Applications	True		
	Managed Pipeline Mode	Integrated		
	Name	PrintUsage		Ξ
	Queue Length	1000		
	Start Automatically	True		
E	I CPU			
	Limit	0		
	Limit Action	NoAction		
	Limit Interval (minutes)	5		
	Processor Affinity Enabled	False		
	Processor Affinity Mask	4294967295		
E	Process Model			
	Identity	NetworkService		
	Idle Time-out (minutes)	20		
	Load User Profile	False		
	Maximum Worker Processes	1		
	Ping Enabled	True		-
(General)			
		ОК	Canc	el



8.2.3 Creating an application

Create a PrintUsage application in the default Web site. Figure

Add Application	? ×					
Site name: Default Web Sit Path: /	te Here is the application pool that created earlier					
Alias:	Application pool:					
PrintUsagePro	DefaultAppPool Select					
Example: sales PrintUsagePro Avalon Directly Physical path:						
C:\Program Files (x86)\PrintUsagePro\Avalon						
Pass-through authentication						
Connect as Test Set	tings					
	OK Cancel					

8.2.4 Update Avalon access right

The Network service will full control permissions to Avalon directly

8.3 Use SQL SERVER 2005 as PRINTUSAGE Database Considerations

When use SQL Server 2005/2008 as the database and install model as distribution, It usually will cause PrintUsage monitoring service cannot connect to the database, Use SQL Server 2005/2008 as PrintUsage database, even with ODBC also cannot connect to the database, now, for example with Windows 2003 With SP1 + SQL Server 2005 Developer Edition, using SQL Server 2005 database and distributed installation..

8.3.1 Set up the database for mixed authentication mode

Enable SQL Server Management Studio

Connect to the database server



Right-click on the database server, and select Properties (attributes), as shown in Figure



Click on Security (security), as shown in Figure::

Server Properties - 119.119	9.119.59		
Select a page	🖾 Script 👻 📑 Help		
Memory Processors Security Connections Patabase Settings	Server authentication		
Advanced Permissions	SQL Server and Windows Authentication mode Login auditing		
	◯ <u>N</u> one		
	• Eailed logins only		
	O Successful logins only		
	C Both failed and successful logins		
	Server proxy account		
	Enable server proxy account		
	Proxy account:		
Connection	Password:		
Server: 119.119.119.59	Options		
Connection: CHINANUSA\tyr 學 View connection properties	 Enable C2 audit tracing Cross database ownership chaining 		

Select SQL Server and Windows Authentication mode;

8.3.2 Setting SQL Server port number

Usually if without making any changes, the port number is 1433, if the firewall is set, please open this port. Setting SQL Server port number as follows steps:



Open SQL Server Configuration Manager from the Start menu

Expand SQL Server 2005 Network Configuration

Display Protocols for MSSQLSERVER

🔀 SQL Server Configuration Manager (Local)	Protocol Name	Status
SQL Server 2005 Services	🐨 Shared Memory	Enabled
🖹 🖳 SQL Server 2005 Network Configuration	To Named Pipes	Enabled
Protocols for MSSQLSERVER	TCP/IP	Enabled
🗄 🚆 SQL Native Client Configuration	WIA WIA	Disabled

Confirm the right of the TCP / IP is not disabled, if yes, to enable

Right-click on TCP / IP, select Properties

Select IP Addresses

Active	Yes
Enabled	NO
IP Address	fe80::a5a9:2b14:9b5:a9c7%11 E
TCP Dynamic Ports	
ICP Port	1433
E IP2	
Active	Yes
Enabled	NO
IP Address	119.119.113.2
TCP Dynamic Ports	
	1433
E IP3	
Active	Yes
Enabled	No
IP Address	::1
IP3	

Modify TCP Port: 1433

Click Ok and exit



8.3.3 Enable TCP / IP network connection with the pipeline

Running SQL Server 2005 Surface Area Configuration from the Start menu.



Click Surface Area Configuration for Services and Connections

Help Protect Your SQL Serv Enable only the services and connection protect your server by reducing the surfar Select a component and then configure its G MSSQLSERVER G Database Engine	er types used by your a ce area. For default se s services and connect Disable this service	pplications. Disabling unused services and connections hebs ttings, see <u>Help</u> . ions: unless your applications use it.		
	S <u>e</u> rvice name: Display name: Des <u>o</u> ription: St <u>a</u> rtup type:	MSSQLSERVER SQL Server (MSSQLSERVER) Provides storage, processing and controlled access of data and rapid transaction processing.		
View by Component	Service status:	Running Stop <u>P</u> ause <u>R</u> esume		

Expand MSSQLSERVER-->Database Engine-->Remote Connections





Modify the default database connection, Modified Local Connections Only as Local and Remote Connections, and choose Using Both TCP / IP and named Pipes.

🗌 Surface Area Configuration for Serv	ices and Connections - localhost	×
SQL Server 2005 Surfa	ace Area Configuration	
Enable only the services and connection protect your server by reducing the surfar Select a component and then configure it:	n types used by your applications. Disabling unused services and connections helps ce area. For default settings, see <u>Help</u> . s services and connections:	
 MSSQLSERVER Database Engine Service Remote Connections Analysis Services SQL Server Agent Tull Text Search Integration Services SQL Server Browser 	By default, SQL Server 2005 Express, Evaluation, and Developer editions allow local client connections only. Enterprise, Standard, and Workgroup editions also listen for remote client connections over TCP/IP. Use the options below to change the protocols on which SQL Server listens for incoming client connections. TCP/IP is preferred over named pipes because it requires fewer ports to be opened across the firewall.	
	OK Cancel Apply Help	

Save and Exit

Note: Any of the above changes are needed to restart the SQL Server service.



🏶 Special Administration Console	Allows adm		Manual	Local System
SQL Server (MSSQLSERVER)	Provides st	Started	Automatic	Local System
🏶 SQL Server Active Directory Hel	Enables int		Disabled	Network S
SQL Server Agent (MSSQLSERV	Executes j		Manual	Local System
🏶 SQL Server Analysis Services (Supplies on	Started	Automatic	Local System
🖏 SQL Server Browser	Provides S	Started	Automatic	Local System
🏶 SQL Server FullText Search (MS	Quickly cre	Started	Automatic	Local System
🏶 SQL Server Integration Services	Provides m	Started	Automatic	Network S
SOL Server VSS Writer	Provides th		Manual	Local System

Restart display highlighted services will be ok.

8.4 SQL SERVER Firewall Script

@echo Enabling SQLServer default instance port 1433 Netsh firewall set portopening TCP 1433 "SQLServer" @echo Enabling Dedicated Admin Connection port 1434 Netsh firewall set portopening TCP 1434 "SQL Admin Connection" @echo Enabling conventional SQL Server Service Broker port 4022 Netsh firewall set portopening TCP 4022 "SQL Service Broker" @echo Enabling Transact-SQL Debugger/RPC port 135 Netsh firewall set portopening TCP 135 "SQL Debugger/RPC" @echo ====== Analysis Services Ports ========= @echo Enabling SSAS Default Instance port 2383 Netsh firewall set portopening TCP 2383 "Analysis Services" @echo Enabling SQL Server Browser Service port 2382 Netsh firewall set portopening TCP 2382 "SQL Browser" @echo ====== Misc Applications ======== @echo Enabling HTTP port 80 Netsh firewall set portopening TCP 80 "HTTP"



@echo Enabling SSL port 443

Netsh firewall set portopening TCP 443 "SSL"

@echo Enabling port for SQL Server Browser Service's 'Browse' Button

Netsh firewall set portopening UDP 1434 "SQL Browser"

@echo Allowing multicast broadcast response on UDP (Browser Service Enumerations OK)

Netsh firewall set multicastbroadcastresponse ENABLE

8.5 Enable Windows account print method

1,By default,XP disabled Guest accounts.

2,By default, XP local security policy prohibits Guest user from the network access.

3,By default, the local security policy of XP - > security options, "account: use an empty password users "only console login" is enabled, that is to say, any account empty password cannot be accessed from the network only local login, the Guest password default as empty.

So, if user needs to use the Guest user access XP, need to set the above three Settings: enable Guest, modify the security policy to allow Guest from the network access, disable 3 security policies or add a password to Guest.

Sometimes meet another another situation: access XP, the user name login dialog is grey, is always a Guest user, cannot enter the other user account.

Reason is that it's security policy(Administrative tools - > local security policy - > security options - > "Internet access: local account sharing and safe mode).By default, Windows XP access is a "Guest" only way, then user visit it, of course, is fixed for the Guest cannot enter a different user account

"Account: use an empty password users "only console login" is enabled

Network access: Local account sharing and safe mode classic- local users with their own authentication

8.6 How to open the SQL Server Express open SA landing permissions

No SSMS environment.

Open the registry regedit

HKEY_LOCAL_MACHINE\Software\Microsoft\Microsoft SQL Server\MSSQL.1



The key value: LoginMode

1 Change to 2 enters the following command in the command line.

Sqlcmd -E -S\< Instance name > -d master ALTER LOGIN sa ENABLE

ALTER LOGIN sa WITH PASSWORD = "

Go

Open 1433 TCP, This will not give a screenshot.

Restart the SQL server service