

Web Service for SKF @ptitude Observer

Part No. 32179700
Revision A

Installation Manual

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#US06513386, #US06275781, #US06633822,
#US06006164, #US2003_0178515A1, #US6,789,025,
#US6,789,360, #WO_03_048714A1
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Overview

Web Service for SKF @ptitude Observer is used as the communication device for *Gadgets for SKF @ptitude Observer*. It allows for trouble free data access through firewalls and routers. The *Web Service* is responsible for handling security, data distribution and data feeds. It is the interface barrier between the *Gadgets* and the database, and the entry point for requests from the *Gadgets*.

Requirements

In order to install and run the *Web Service for SKF @ptitude Observer* you need Microsoft Internet Information Server (IIS). You need to run a website. It is not the intention to explain here how to do it, since this guide is for IIS administrators who already know how it works.

You need an access from the server where the *Web Service for SKF @ptitude Observer* is running to all databases you would like to access.

It is strongly recommended that the *Web Service for SKF @ptitude Observer* is installed and run on Windows server versions which have no user limit in connections. However, if the platform for *Web Service for SKF @ptitude Observer* is a non-server versions of Windows such as Windows XP, remember that there is an IIS connection limit of 10 users. Which means that only 10 gadget calls can be made to the IIS web service simultaneously. Failing to do so can result in *Gadgets'* failure in retrieving data or connection.

Available Web Services

There are three versions of *Web Service for SKF @ptitude Observer*, each with its own set of features.

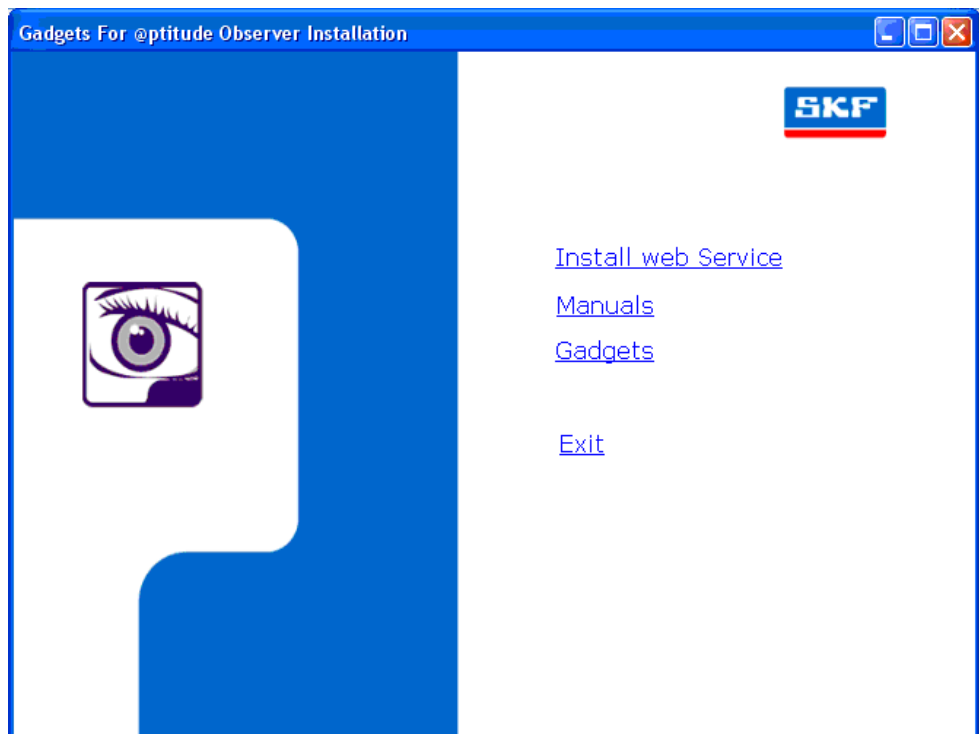
- *Web Service for SKF @ptitude Observer Standard*
- *Web Service for SKF @ptitude Observer Extended*
- *Web Service for SKF @ptitude Observer Enterprise Edition (SKF INTERNAL USE only and NOT FOR SALE)*

Installation

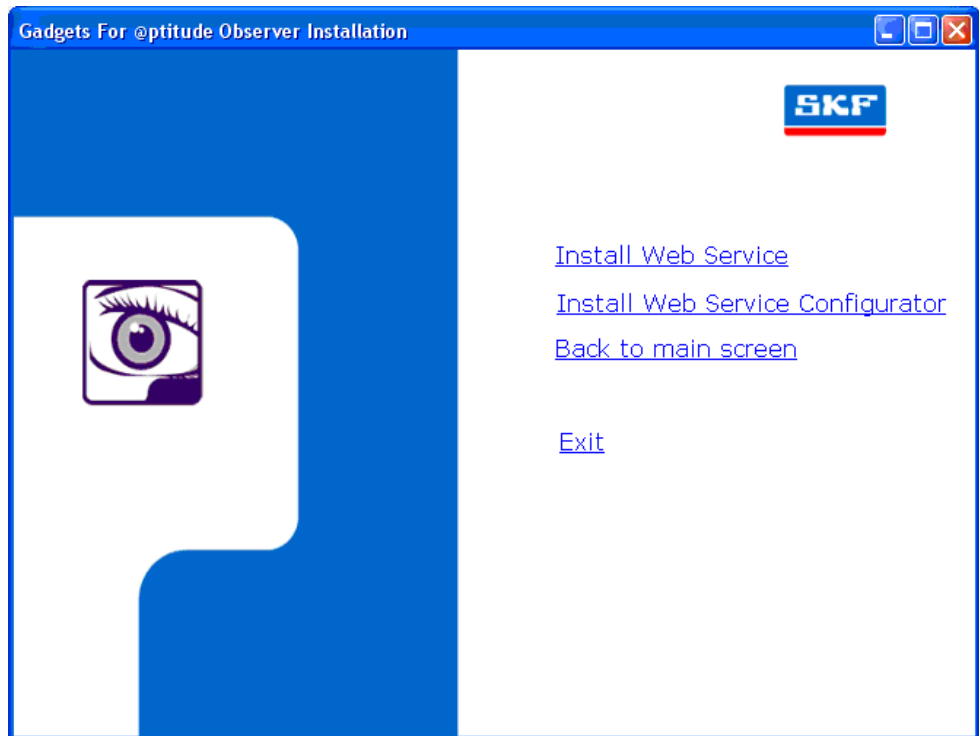
The installation process is in two parts; installation of *Web Service*, and installation of *Web Service Configurator*. You can access the installation programs from the Gadgets CD.

Install Web Service

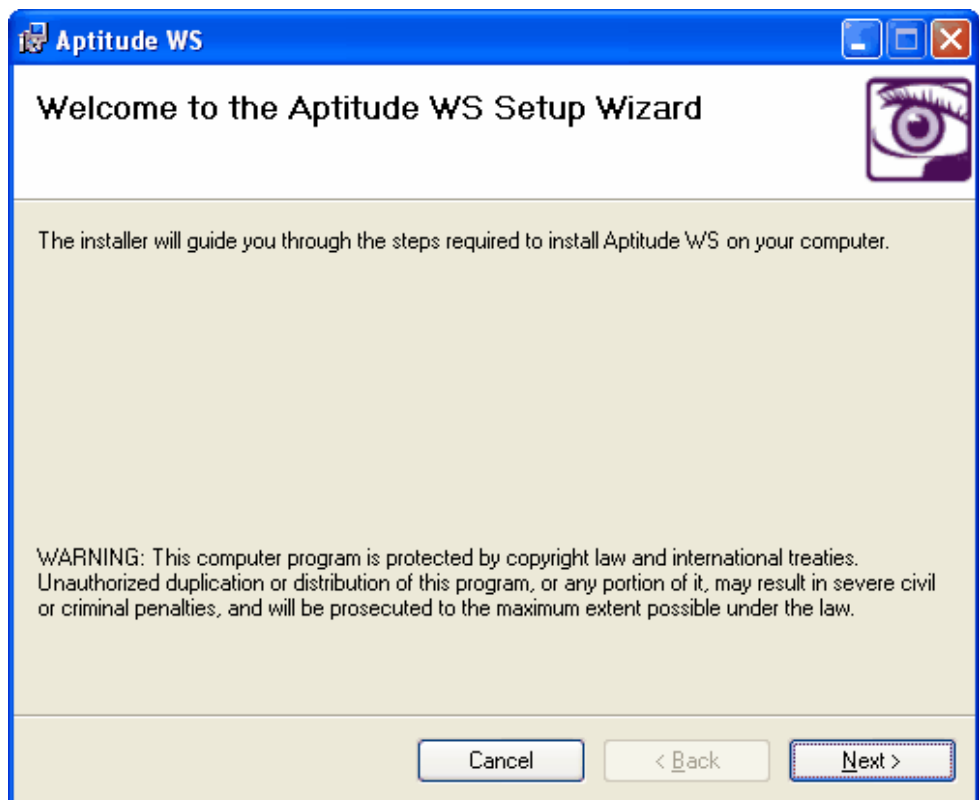
1. Before you can install the *Web Service for SKF @ptitude Observer*, you need to have a running Microsoft IIS (web server). The *Web Service for SKF @ptitude Observer* must be installed on this IIS.
2. Create an Aptitude WS log database. This database is provided on the disk and can be copied to your SQL server for attachment. Make sure the database is operational when finished. If you are not running the full MS SQL version, then you can use the *Observer Database Administrator* and attach the database that way (however, this is not ideal and you must be a database administrator to do it). In some cases a backup of this Aptitude WS log database is also provided on the disk and you can restore the backup with a new name (as a standard you should restore the database with the name AptitudeWSLog). The database provided is a SQL 2005 version. Use the solution with which you are most comfortable. Note that you need to be an administrator to do all of these tasks.
3. Start the Setup program and select **Install web Service**.



4. Select **Install Web Service**.



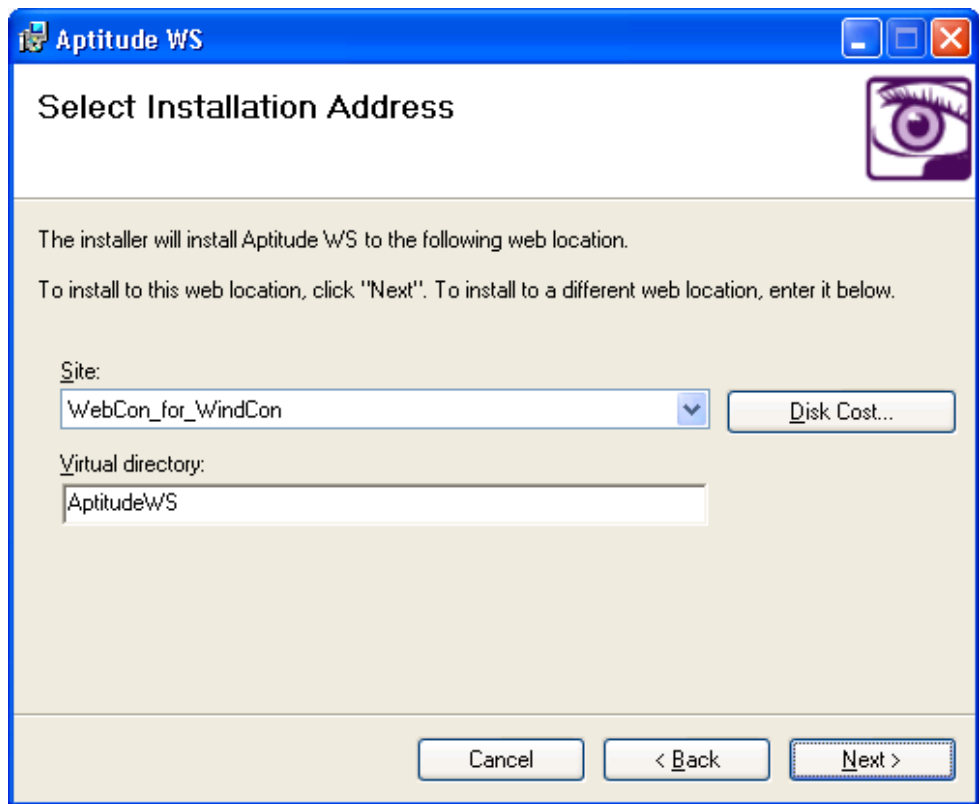
5. Click **Next**.



6. Select **I Agree** and click **Next**.

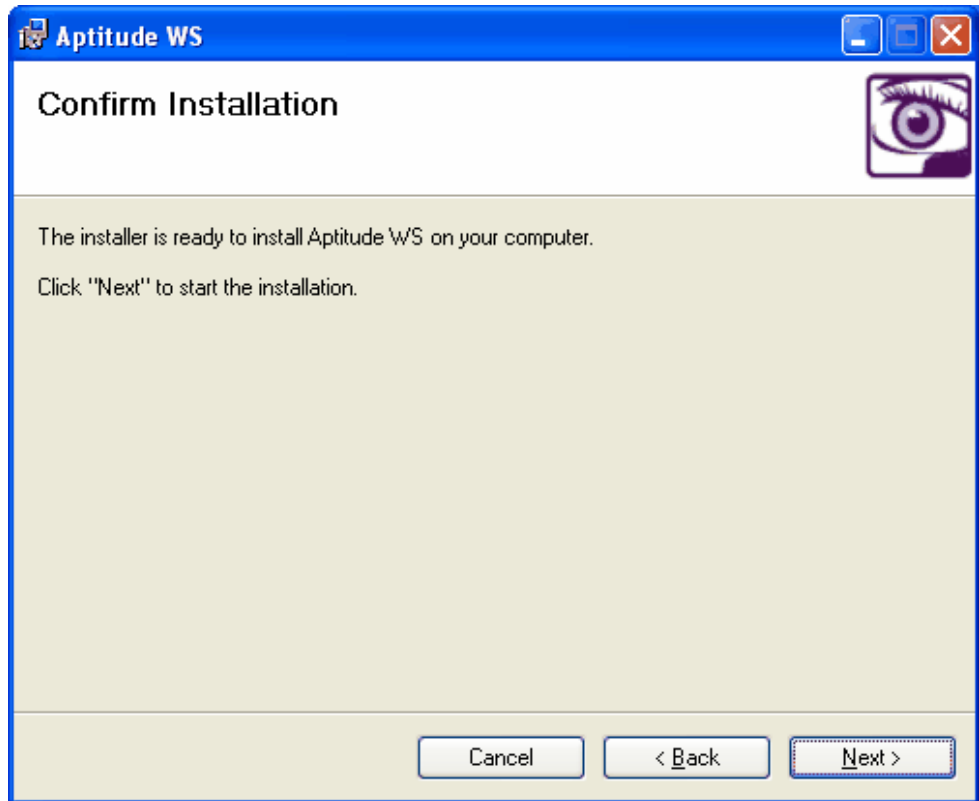


7. Enter the site and virtual directory for the installation address. Then click **Next**.

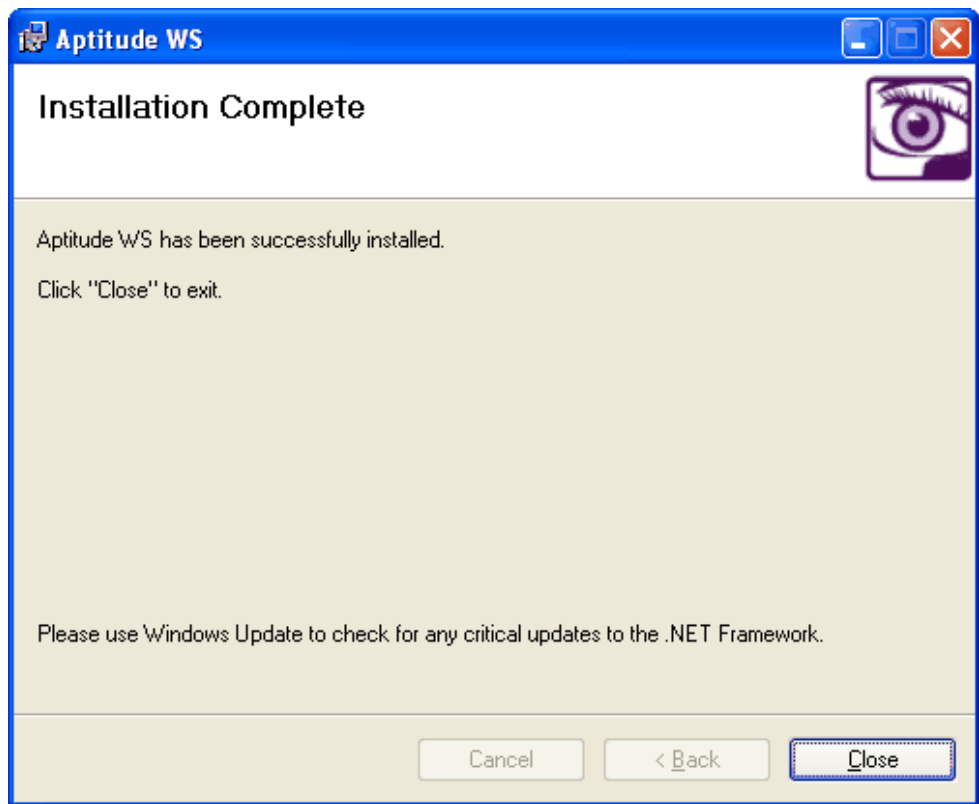


- **Site** is the web server site to which you would like to install.
- **Virtual directory** is the default *@ptitude Web Service* name.

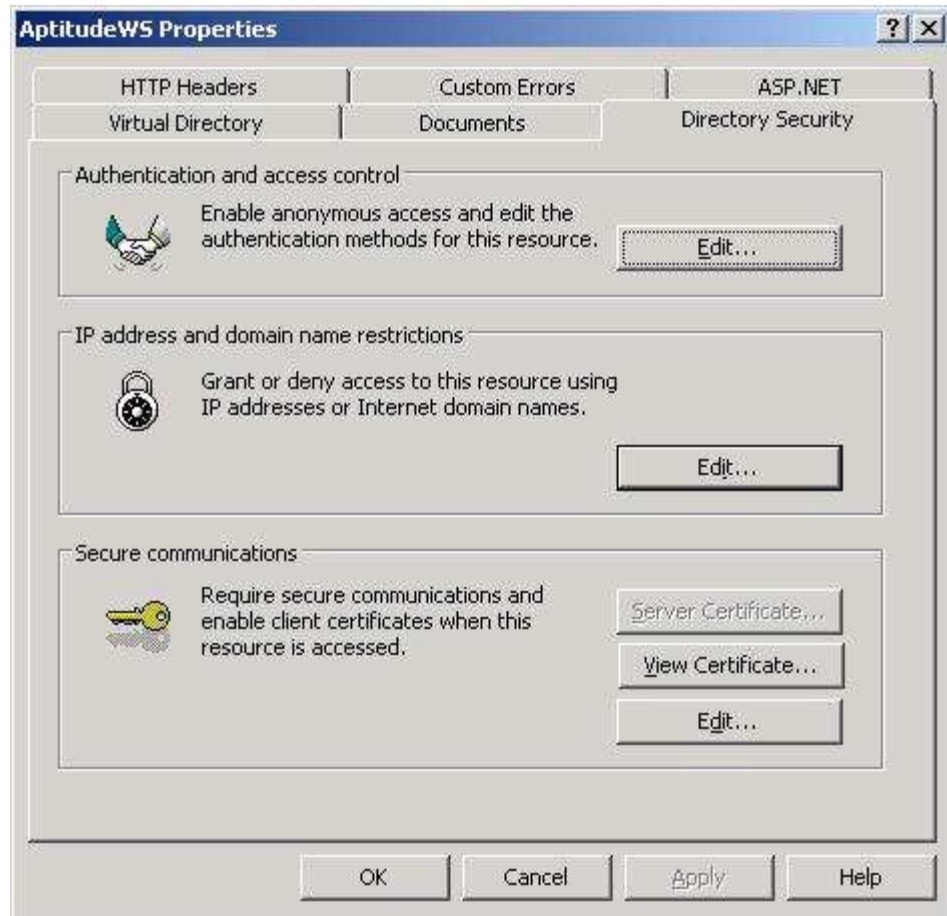
8. Press **Next**.



9. Click **Close**.



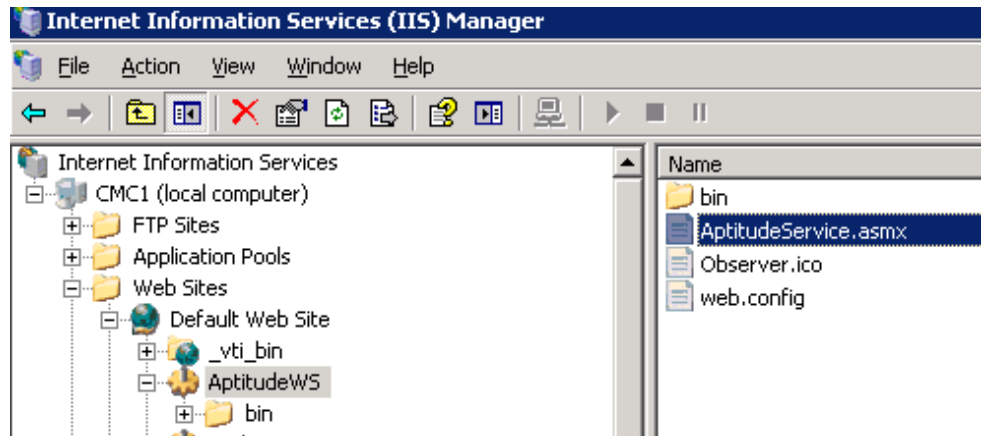
- If you are planning to host this for users outside of your domain, you must have a website that is reachable from outside of your domain. The website must be operational. This installation will add a new website to your IIS called AptitudeWS (the virtual directory name). Right click on this new virtual site and select **properties >> Directory Security** which will bring you to the screen shown below. Select **Ip address and domain name restrictions**.



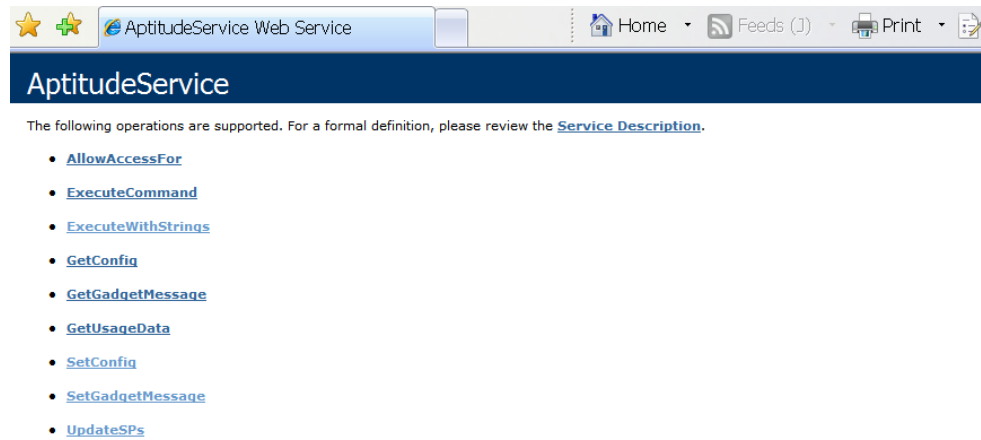
- Select **Granted access**.



12. You can test this site by following the steps below.
 - 1) Open control panel
 - 2) Go to administration tools
 - 3) Start IIS service manager
 - 4) Right click on AptitudeService.asmx and choose browse



13. You should see the AptitudeWS interface as below. This is the proof that it is up and running. Note the address of the AptitudeWS service shown in your browser.



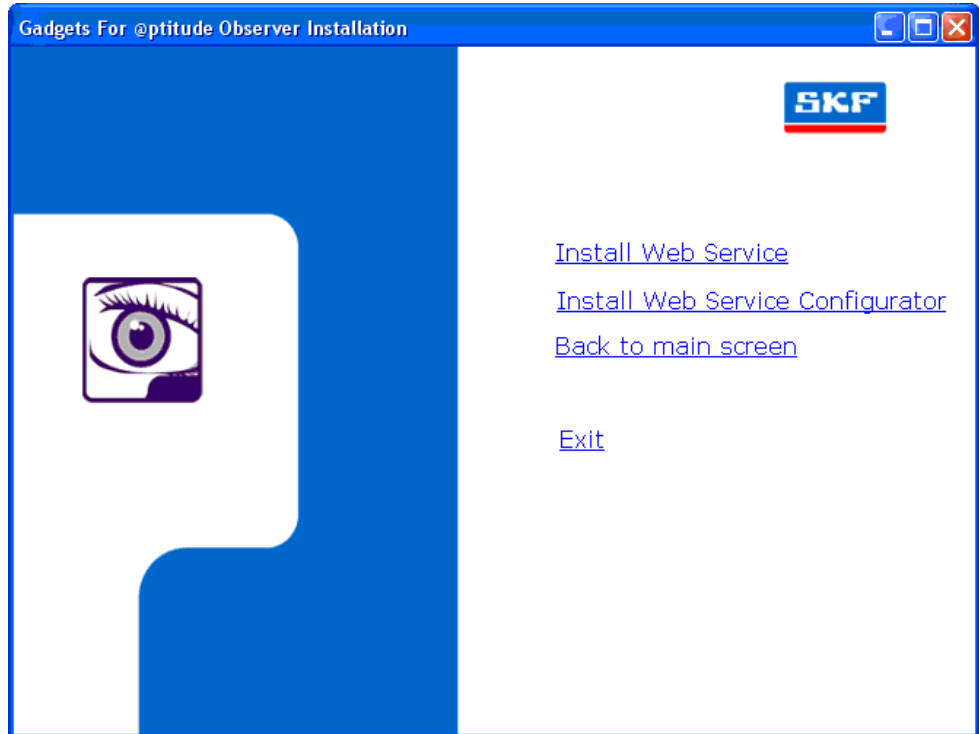
14. Now, you need to install the AptitudeWSConfig program which is described in the next section, Install Web Service Configurator. This is the tool that creates the main interface for your *Web Service for SKF @ptitude Observer*. It also allows you to register your version of the AptitudeWS.

Install Web Service Configurator

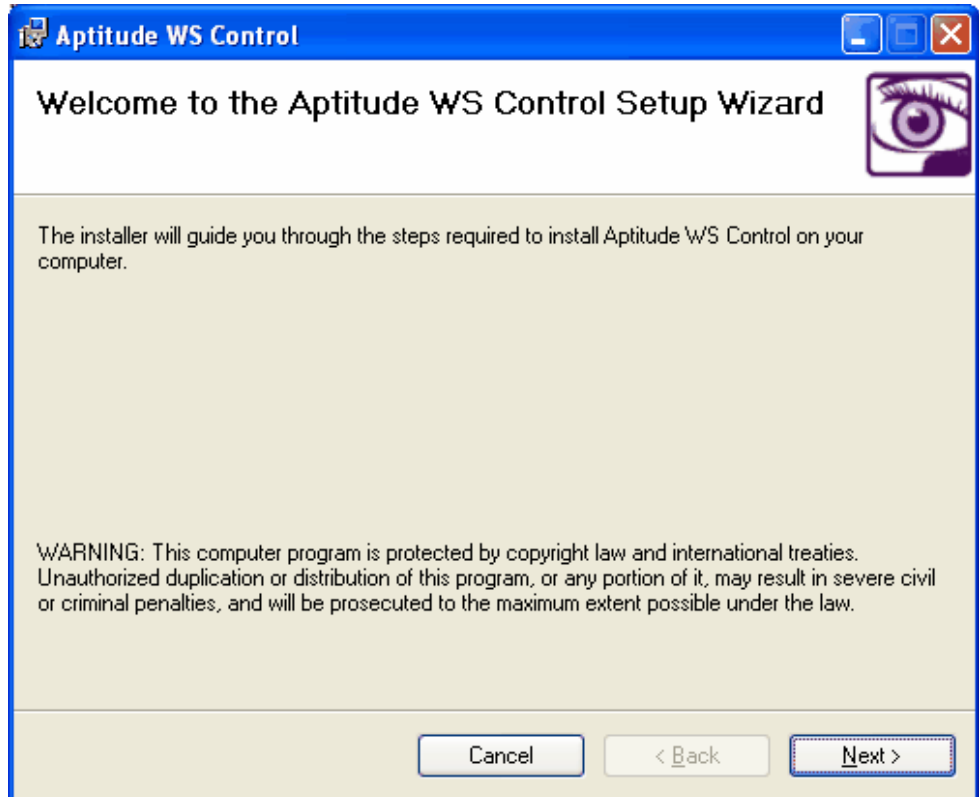
Web Service Configurator is the tool that creates the main interface for your *Web Service* for *SKF @ptitude Observer*. It also allows you to register your version of the *AptitudeWS*.

Important - The AptitudeWSConfig must be installed on the same computer as the one running the web service. Only local (same computer) installation of the AptitudeWSConfig program is allowed to edit and save settings to the Web Service for SKF @ptitude Observer (for security reasons).

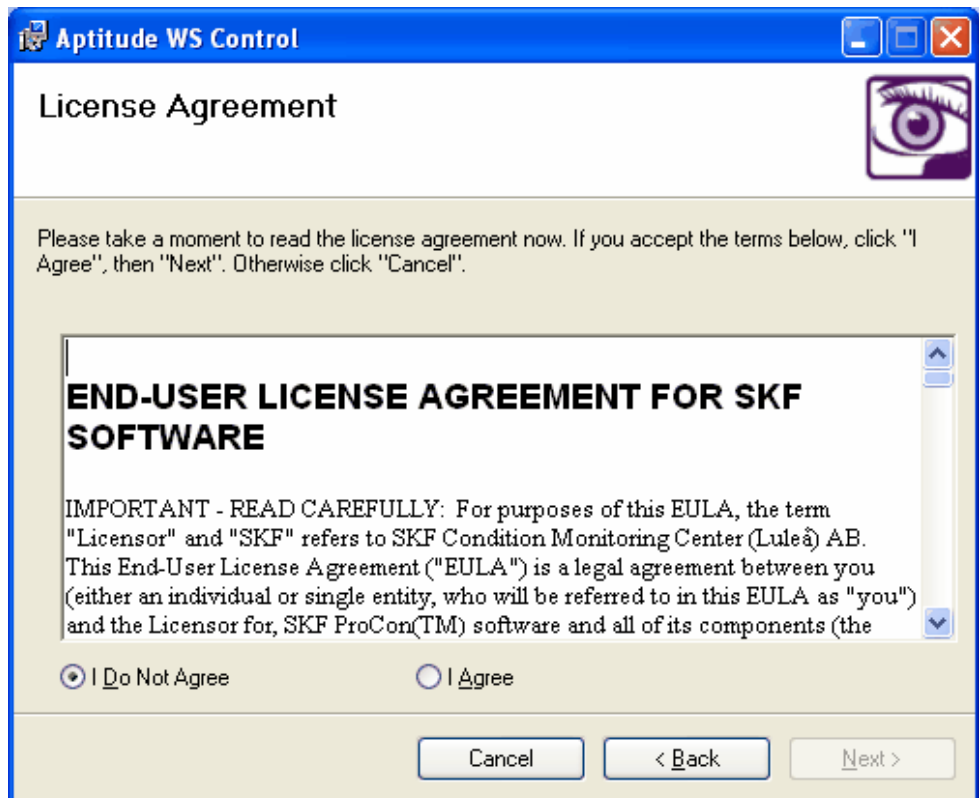
1. Select **Install Web Service Configurator**.



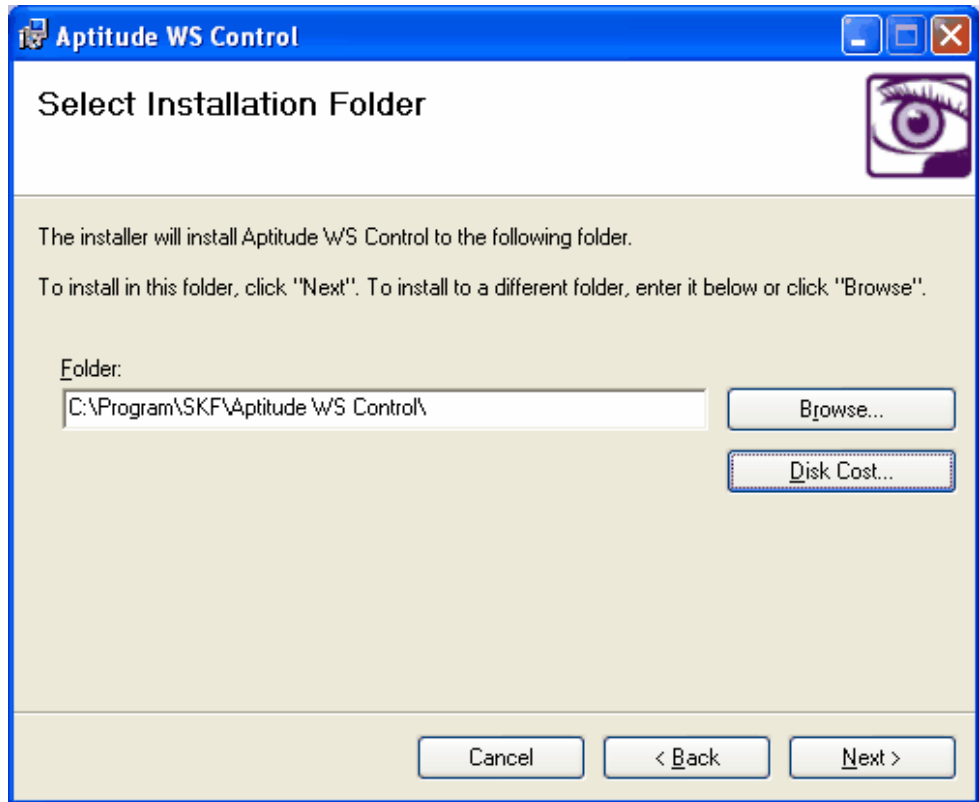
2. Click **Next**.



3. Select **I Agree**, then click **Next**.

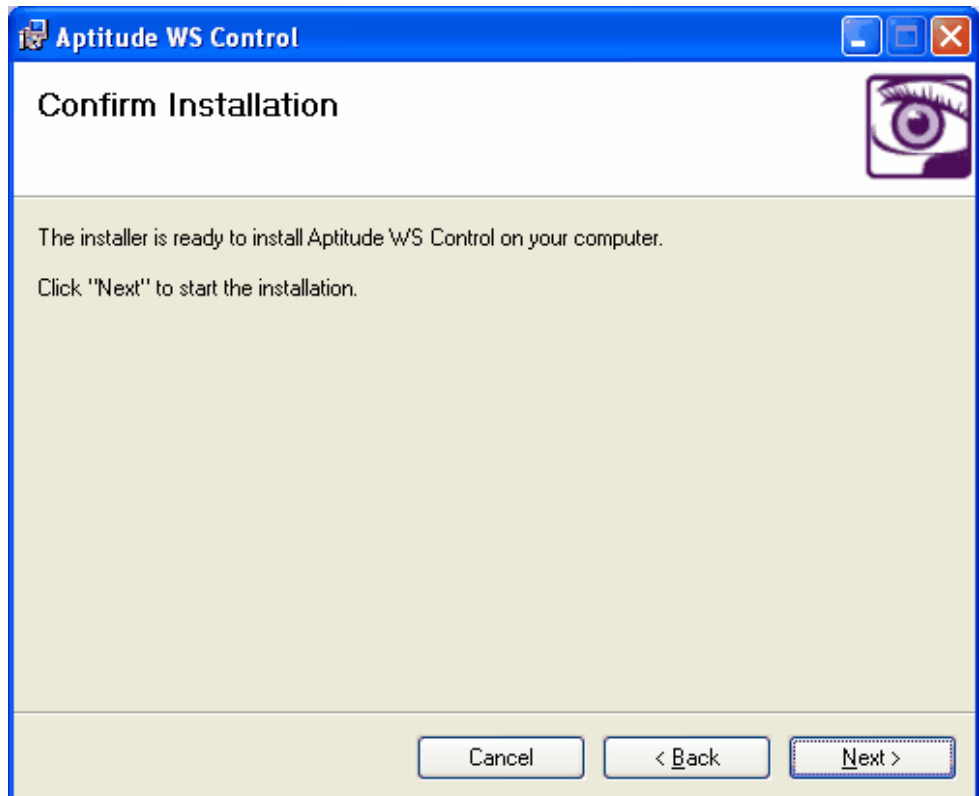


4. Enter the folder in which *@ptitude Web Service Control* is to be installed.

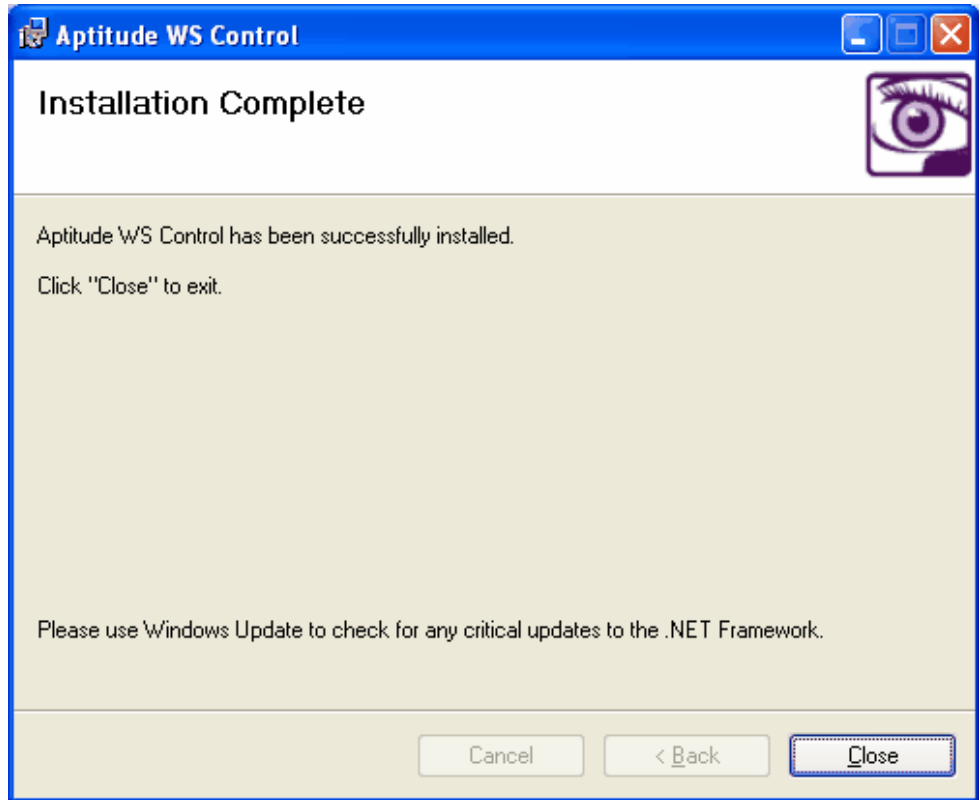


- **Disk Cost** displays the drives in which you can install *@ptitude WS Control*. It also displays the available and required disk space of each drives.

5. Click Next.



6. Click **Close**.



7. Now, run the registry file that is included in the disk called: "WSCmd080815" by double clicking on it. This will insert the default standard command in use for the Gadgets. If it is not possible to run the registry file, you will have to type in all the text on the Commands tab to look exactly like the following.

The screenshot shows a software interface with a tab labeled "Commands". Below the tab is a table titled "Update Stored Procedures to". The table has the following columns: Description, Stored Procedure, Parameters, Parameter Types, Columns, and Column Types. The data rows are as follows:

Description	Stored Procedure	Parameters	Parameter Types	Columns	Column Types
CheckNodes	AG_GetNodes	PCID,User,Pwd	string,string,string	IDNode,IDParent,IDRefNode,NodeType,NodeName,NodeDescription,NodeStatus,NodeActive	
CheckUsers	AG_ContainsUsers	PCID,User,Pwd	string,string,string	Access	
GetAl	AG_GetRecentAlarms	PCID,User,Pwd	string,string,string		
GetAlaHist	AG_GetLatestHistoricValues	PCID,User,Pwd	string,string,string		
GetVal	AG_GetLatestValues	PCID,User,Pwd	string,string,string		
GetTrend	AG_GetTrendHistory	PCID,User,Pwd,NodeID	string,string,string,string		
GetTAl	AG_GetTrendAlarms	PCID,User,Pwd,NodeID	string,string,string,string		
GetNewMess	AG_GetNewMessages	PCID,User,Pwd	string,string,string		
GetVal	AG_GetTrendValues	PCID,User,Pwd,NodeID	string,string,string,string		

8. Start the AptitudeWSConfig program. First time you open the application you will be asked for the registration key. The registration key will be sent to you once you have completed the customer information and has successfully been e-mailed to SKF. The e-mailing is done automatically if you have a working e-mail on the computer when you click on Request. If not, you must send this information by hand to tsq-emea@skf.com. Note that two installation serial numbers are needed to complete the registration. You will get the registration key within 24 hours via the e-mail you provided.

Registration

Customer Information

Enter your name and company or organization in the box below.
The information will be used to obtain a registration key for this installation.

Name

Organization

Email

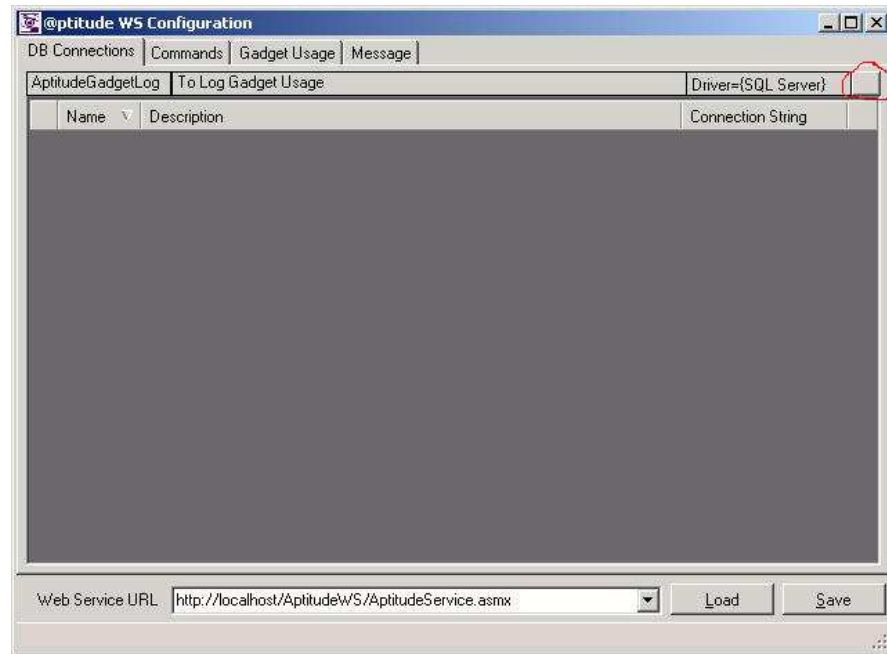
Installation Serial Number
A3C54DF8-31D9-32B6-D128-C9D003475444
E88E04B5-6296-1884-AF09-89F32719726E

Enter your registration key below.

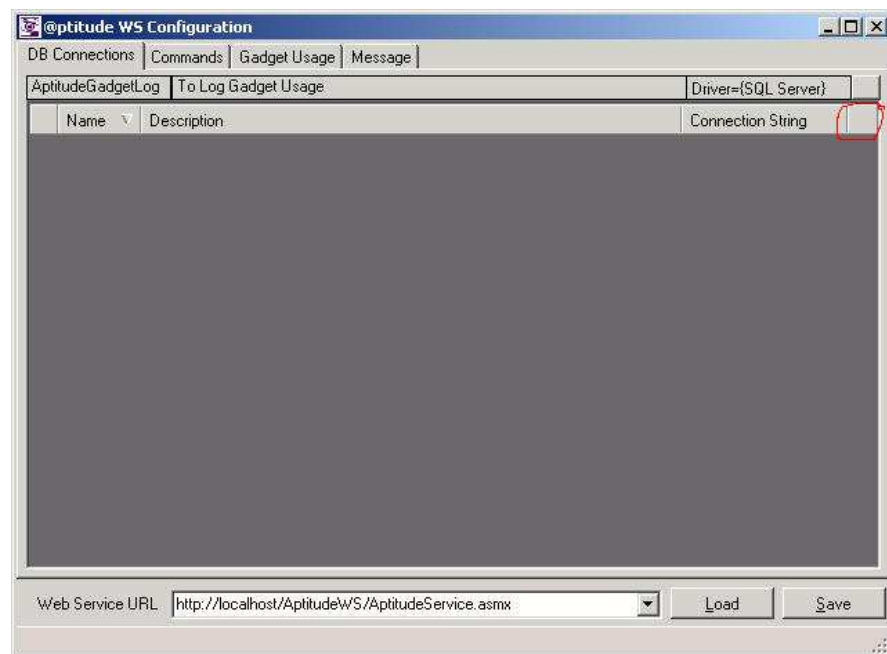
Registration key

9. You can continue without registration while you wait for the registration key. This unregistered version will only run for 24 hours to allow you to continue. When the installation is finished, run the AptitudeWSConfig (shortcuts are added to your program files >> SKF). This registration will come up when opening application before the valid registration code is inserted.

10. On the 1st tab, use the “...” button to set up a connection to the database you have attached for the Aptitude WS log (the default name is AptitudeWSlog) as shown in the example below, or you could create a new database on your SQL server and run the script provided on the disk called “UsageLog” to create the needed log tables only.



11. Use the “...” button to set up database connections to all the databases you would like to make available (you must double click in the space as indicated in the example to enable the connection editing form). A useful tip is to create a separate SQL user for the AptitudeWS in each database. This allows for higher security and traceability of user activity should you suspect abuse. This account needs store, procedure, and execution rights in each database or DBO right.



12. Go to the Commands tab. Select the SQL file we provided (on the disk named: AptitudeWSSP) and run it. This will update and install all needed functions in the databases you have set up connection to in the previous step.

Important - The SQL user name and password you provide here must have administrator/DBO rights in each database to allow for the installation of the needed procedures on each SQL databases.

13. The setup is now done. Press the save button to save the configuration settings.
14. Remember that the platform uses double security as far as user access goes. The user name and password that each user uses in the *Gadgets* need to be a *@ptitude Observer* user name and password or the *@ptitude Analyst* user name and password in each database. If you want to create a new user that can access a database, then you must use either *Observer* or *Analyst* to create the user in the applicable database. The user does not need any specific right, it just needs to exist.
15. The *@ptitude Web Service Configurator* does not need to be running for all to work, only the *Web Service* needs to be running. If you start the *@ptitude Web Service Configurator*, you will need to point it to the *Web Service* that you want to load first before you can monitor that service, and hence make changes to it. This is done by typing in the full *Web Service* address e.g. `http://mywebserver/VirtualDirectoryName/AptitudeService.asmx` (remember, only a local address in the form of: `http://localhost/...` or `http://127.0.0.1/...` can be used for editing and saving) and then press **Load**.

Important - You can not edit or change a remote Web Service for SKF @ptitude Observer, you must load (link to) a local instance of the Web Service for SKF @ptitude Observer if you want to edit its settings.

Note - There is no help file because the Web Service for SKF @ptitude Observer and AptitudeWSConfig have limited settings and this installation manual also serves that purpose. It is assumed that you are an IIS administrator. If help is needed, you can contact tsg-emea@skf.com

Web Services

There are three versions of *Web Services* for *SKF @ptitude Observer*; standard, extended, and enterprise edition.

Standard Edition

The standard edition of the *Web Service* for *SKF @ptitude Observer* provides the following features.

- Unlimited number of user connections
- Maximum of 30 simultaneously connected gadgets
- User and gadget statistics information can be obtained by the Gadget Usage tab
- No “Active Blocking” of abusing users. However, If someone unwanted is connecting or abusing the system, you could block that person’s IP address through the IP blocking functions in IIS (see IIS help file).
- No “IP to City” translation for easy identifying of users
- No SQL throttling

IP	Application	Query	User	Cour	Day	We	Mont	Day	Wee	Mc	First Usage	Last Usage
87.209.91.28	TrendsGadget	AG_GetTrendValues	theo	2681	17	17	2681	555	2654	0	2008/11/04 19:21:20	2008/11/10 07:53:31
87.209.91.28	AlarmsGadget	AG_GetRecentAlarms	theo	1982	17	17	1982	560	1965	0	2008/11/04 19:21:36	2008/11/10 07:53:33
87.209.91.28	BarsGadget	AG_GetLatestValues	theo	1985	17	17	1985	559	1968	0	2008/11/04 19:21:46	2008/11/10 07:53:33
127.0.0.1	ControlApp	GetUsageData	Admin	15	2	15	15	2	0	0	2008/11/04 19:22:47	2008/11/07 10:36:17
87.209.91.28	BarsGadget	AG_GetNodes	feix	4	4	4	4	0	0	0	2008/11/04 19:23:57	2008/11/04 19:30:13
87.209.91.28	BarsGadget	AG_GetNodes	feix	10	3	10	10	3	0	0	2008/11/04 19:30:26	2008/11/07 11:17:06
87.209.91.28	BarsGadget	AG_GetLatestHistoric	feix	6	1	6	6	2	0	0	2008/11/04 19:30:27	2008/11/07 11:16:47
87.209.91.28	BarsGadget	AG_GetLatestValues	feix	1717	17	17	1717	464	1700	0	2008/11/04 19:33:37	2008/11/10 07:53:32
87.209.91.28	MessagesGadget	AG_GetNewMessages	theo	1245	17	17	1245	559	1228	0	2008/11/04 20:04:59	2008/11/10 07:53:34
84.192.192.173	BarsGadget	AG_GetLatestValues	feix	7	7	7	7	0	0	0	2008/11/05 13:21:31	2008/11/05 13:25:47
84.192.192.173	TrendsGadget	AG_GetTrendValues	theo	5	5	5	5	0	0	0	2008/11/05 13:21:31	2008/11/05 13:25:25
84.192.192.173	AlarmsGadget	AG_GetRecentAlarms	theo	5	5	5	5	0	0	0	2008/11/05 13:21:32	2008/11/05 13:25:27
84.192.192.173	BarsGadget	AG_GetLatestValues	theo	5	5	5	5	0	0	0	2008/11/05 13:21:32	2008/11/05 13:25:26
84.192.192.173	MessagesGadget	AG_GetNewMessages	theo	4	4	4	4	0	0	0	2008/11/05 13:22:27	2008/11/05 13:25:26
84.192.192.173	BarsGadget	AG_GetNodes	feix	2	2	2	2	0	0	0	2008/11/05 13:24:09	2008/11/05 13:24:45
84.192.192.173	BarsGadget	AG_GetLatestHistoric	feix	1	1	1	1	0	0	0	2008/11/05 13:24:10	2008/11/05 13:24:10
87.209.91.28	BarsGadget	AG_GetNodes	theo	3	1	3	3	2	0	0	2008/11/05 15:33:47	2008/11/06 15:47:14
87.209.91.28	BarsGadget	AG_GetLatestHistoric	theo	2	1	2	2	1	0	0	2008/11/05 15:33:48	2008/11/06 15:47:15

Web Service URL:

Extended Edition

The extended edition of the *Web Service for SKF @ptitude Observer* provides the following features.

- Unlimited number of user connections
- Maximum of 100 simultaneously connected gadgets
- User and gadget statistics information can be obtained by the Gadget Usage tab
- Availability of “Active Blocking” of abusing users directly from the User Log tab
- “IP to City” translation for easy identifying of users with detailed GEO location information of the *Gadget* user’s origin. Location information is 70% accurate and includes country, region and city.
- SQL throttling
- Optimized SQL interface with multi-threading and error handling
- SQL “denial of service” prevention
- Possibility to increase the maximum number of simultaneous *Gadgets*

Ac	IP	Application	Query	User	Cour	Day	Week	Month	Day	Wk	Mo	First Usage	Last Usage	Co	Re	City
<input checked="" type="checkbox"/>	87.209.91.28	TrendsGadget	AG_GetTrendValues	theo	2203	84	2203	2203	238	0	0	04/11/2008 19:21:20	07/11/2008 10:29:20	NL	03	Tiel
<input checked="" type="checkbox"/>	87.209.91.28	AlarmsGadget	AG_GetRecentAlarms	theo	1501	96	1501	1501	300	0	0	04/11/2008 19:21:36	07/11/2008 10:35:28	NL	03	Tiel
<input checked="" type="checkbox"/>	87.209.91.28	BarsGadget	AG_GetLatestValues	theo	1504	95	1504	1504	301	0	0	04/11/2008 19:21:46	07/11/2008 10:36:11	NL	03	Tiel
<input checked="" type="checkbox"/>	127.0.0.1	ControlApp	GetUsageData	Admin	15	2	15	15	2	0	0	04/11/2008 19:22:47	07/11/2008 10:36:17			
<input checked="" type="checkbox"/>	87.209.91.28	BarsGadget	AG_GetNodes	feix	4	4	4	4	0	0	0	04/11/2008 19:23:57	04/11/2008 19:30:13	NL	03	Tiel
<input checked="" type="checkbox"/>	87.209.91.28	BarsGadget	AG_GetNodes	feix	8	1	8	8	3	0	0	04/11/2008 19:30:26	07/11/2008 09:35:56	NL	03	Tiel
<input checked="" type="checkbox"/>	87.209.91.28	BarsGadget	AG_GetLatestHistoric	feix	5	2	5	5	1	0	0	04/11/2008 19:30:27	06/11/2008 20:40:42	NL	03	Tiel
<input checked="" type="checkbox"/>	87.209.91.28	BarsGadget	AG_GetLatestValues	feix	1276	40	1276	1276	144	0	0	04/11/2008 19:33:37	07/11/2008 09:34:57	NL	03	Tiel
<input checked="" type="checkbox"/>	87.209.91.28	MessagesGadget	AG_GetNewMessages	theo	764	95	764	764	300	0	0	04/11/2008 20:04:59	07/11/2008 10:35:28	NL	03	Tiel
<input checked="" type="checkbox"/>	84.192.192.173	BarsGadget	AG_GetLatestValues	feix	7	7	7	7	0	0	0	05/11/2008 13:21:31	05/11/2008 13:25:47	BE	09	Kortrijk
<input checked="" type="checkbox"/>	84.192.192.173	TrendsGadget	AG_GetTrendValues	theo	5	5	5	5	0	0	0	05/11/2008 13:21:31	05/11/2008 13:25:25	BE	09	Kortrijk
<input checked="" type="checkbox"/>	84.192.192.173	AlarmsGadget	AG_GetRecentAlarms	theo	5	5	5	5	0	0	0	05/11/2008 13:21:32	05/11/2008 13:25:27	BE	09	Kortrijk
<input checked="" type="checkbox"/>	84.192.192.173	BarsGadget	AG_GetLatestValues	theo	5	5	5	5	0	0	0	05/11/2008 13:21:32	05/11/2008 13:25:26	BE	09	Kortrijk
<input checked="" type="checkbox"/>	84.192.192.173	MessagesGadget	AG_GetNewMessages	theo	4	4	4	4	0	0	0	05/11/2008 13:22:27	05/11/2008 13:25:26	BE	09	Kortrijk
<input checked="" type="checkbox"/>	84.192.192.173	BarsGadget	AG_GetNodes	feix	2	2	2	2	0	0	0	05/11/2008 13:24:09	05/11/2008 13:24:45	BE	09	Kortrijk
<input checked="" type="checkbox"/>	84.192.192.173	BarsGadget	AG_GetLatestHistoric	feix	1	1	1	1	0	0	0	05/11/2008 13:24:10	05/11/2008 13:24:10	BE	09	Kortrijk
<input checked="" type="checkbox"/>	87.209.91.28	BarsGadget	AG_GetNodes	theo	3	1	3	3	2	0	0	05/11/2008 15:33:47	06/11/2008 15:47:14	NL	03	Tiel
<input checked="" type="checkbox"/>	87.209.91.28	BarsGadget	AG_GetLatestHistoric	theo	2	1	2	2	1	0	0	05/11/2008 15:33:48	06/11/2008 15:47:15	NL	03	Tiel
<input checked="" type="checkbox"/>	87.209.91.28	TrendsGadget	AG_GetTrendAlarms	theo	2	1	2	2	1	0	0	05/11/2008 15:34:21	06/11/2008 15:47:09	NL	03	Tiel
<input checked="" type="checkbox"/>	87.209.91.28	TrendsGadget	AG_GetNodes	theo	3	1	3	3	1	0	0	05/11/2008 15:34:21	07/11/2008 09:07:08	NL	03	Tiel
<input checked="" type="checkbox"/>	87.209.91.28	TrendsGadget	AG_GetTrendHistory	theo	2	1	2	2	1	0	0	05/11/2008 15:34:22	06/11/2008 15:47:11	NL	03	Tiel
<input checked="" type="checkbox"/>	163.157.254.25	AlarmsGadget	AG_GetRecentAlarms	theo	282	282	282	282	0	0	0	06/11/2008 10:18:17	06/11/2008 15:01:00	SE	28	Göteborg
<input checked="" type="checkbox"/>	163.157.254.25	MessagesGadget	AG_GetNewMessages	theo	281	281	281	281	0	0	0	06/11/2008 10:18:54	06/11/2008 15:00:38	SE	28	Göteborg
<input checked="" type="checkbox"/>	163.157.254.25	TrendsGadget	AG_GetTrendAlarms	theo	1	1	1	1	0	0	0	06/11/2008 10:18:55	06/11/2008 10:18:55	SE	28	Göteborg

Web Service URL: <http://localhost/AptitudeWS/AptitudeService.asmx> [Load] [Save]

Enterprise Edition

Note - Due to the high volume of users, administrative activities and high level of support this version might require, enterprise edition is designed for SKF INTERNAL USE only and NOT FOR SALE.

The enterprise edition of the *Web Service for SKF @ptitude Observer* provides the following features.

- Unlimited and faster *Gadget* connection. Which means that it allows for more loading of the SQL server. You can use the “Query Time” setting to customize this loading depending on your own server’s performance. Note that this is something only an experienced administrator should do to fully understand the consequences of the actions.
- Shows the location in real time of all the *Gadget* users such as country, region and city where the *Gadget* connection is coming from. The location data is 90% accurate. Note that you must have the AptitudeWSLog installed and linked.
- Ability to block unwanted users or abusers directly from the User Log tab. Just uncheck the tick box in front of their instance in order to block them.
- Advance filtering options to easily administer and control the user access. This can be selected by using the drop down menu in the Gadget Usage tab which is pre-configured with some filtering selection option.
- Ability to send messages to all your *Gadget* clients by the Message tab. Messages sent from here come up in the *Message Gadget for SKF @ptitude Observer*. Note that this is intended for information purposes only, thereby should be used with care.