Installation manual

SKF @ptitude Observer

User Manual Part No. 32170700-EN Revision N – January 2019 Observer 11.0

A WARNING! - Read this manual before using the product. Failure to follow the instructions and safety precautions in this manual can result in serious injury, damage to the product, or incorrect readings. Keep this manual in a safe location for future reference.

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Product Support – Contact Information

Product Support – To request a <u>Return Authorization</u>, <u>Product Calibration</u> or a <u>Product Support Plan</u>, use the web page links for direct contact and support.

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General Product Information

For general product information (i.e., product data sheet, accessories catalog, etc.), visit the <u>Condition</u> <u>Monitoring Products</u> page on SKF.com and select the appropriate product link.

Technical Support Group

Discuss/review issues of specific interest with maintenance and reliability specialists from around the world at the <u>SKF Knowledge Centre</u>.

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Product Registration

Please take a moment to register your product at <u>www.skf.com/cm/register</u> to receive exclusive benefits offered only to our registered customers, including receiving technical support, tracking your proof of ownership and staying informed about upgrades and special offers. (Please visit our website for more details on these benefits.)

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1 Requirements

SKF @ptitude Observer can be used in a network with an unlimited number of users. However, there are minimum requirements for computers running SKF @ptitude Monitoring Suite.

SKF @ptitude Monitoring Suite contains the following components:

- @ptitude Observer
- @ptitude Observer database administrator
- @ptitude Observer monitor
- @ptitude Observer on-line device configurator
- @ptitude Observer data pump

To be able to install SKF @ptitude Monitoring Suite, check the hardware and operating system requirements listed below.

Before installing the software ensure that the requirements listed below, are fulfilled.

Hardware Requirements

- One available Ethernet network connection for on-line systems
- A Pentium IV, 2.0 GHz or higher CPU
- A recommended minimum of 2.0 GB RAM
- Mouse, track-ball, digital board or similar
- Graphics chip capable of displaying 16-bit colours with a minimum resolution of 1 366 x 768. For optimal experience when using @ptitude Observer, it is recommended to have a resolution of 1 920 x 1 200 or more.
- A DVD ROM drive for installation
- Free space on a hard disk, 500 MB (client) and 1.2 GB (database server) excluding machine and measurement data. The space necessary for the database depends on the amount of stored data.
- A backup system is recommended

Operating System Requirements

SKF @ptitude Observer supports the following operating systems:

- Microsoft Windows 2003 Server with Service Pack 1 or above
- Microsoft Windows 2008 Server
- Microsoft Windows 2012 Server
- Microsoft Windows 2016 Server
- Microsoft Windows Vista
- Microsoft Windows 7
- Microsoft Windows 8
- Microsoft Windows 10

2 General Guidelines

In order to have a properly functioning SKF @ptitude Observer, follow the general guidelines on installation and setup listed below.

Installation and Setup Guidelines

- 1. Insert the SKF @ptitude Observer DVD.
- 2. Install a database engine which will be used by @ptitude Observer.

The @ptitude Observer system uses Microsoft SQL Server 2014 as the recommended database engine, but it is also compatible with other versions such as SQL Server 2005, 2008,2012 and 2016. Included in the SKF @ptitude Observer DVD are a royalty free version of SQL Server called Microsoft SQL Server Express. The royalty free version can be used for databases with sizes up to 10 GB.

- To install SQL Server Express version, follow the instructions in <u>SQL Server</u> Express Installation.
 - To install a different version of SQL Server other than Express, check the SQL Server documentation for installation instructions.
- 3. Install SKF @ptitude Monitoring Suite components by following the instructions in @ptitude Observer Suite Installation.

SKF @ptitude Monitoring Suite contains the following components:

- @ptitude Observer is for data management and analysis of measurement data for condition monitoring. @ptitude Observer runs on all clients.
- @ptitude Observer database administrator is the tool for administrating the @ptitude Observer databases.
- @ptitude Observer monitor is the server service which works as the connector between IMx system, database and @ptitude Observer clients.
 Detailed information can be found in <u>@ptitude Observer Monitor Service</u>.
- @ptitude Observer Online device configurator is a tool which can set the network configuration and identification for the on-line device. It also enables viewing of what the on-line device is measuring right now, clearing measurement data, showing current measurement configuration and synchronizing the time.
- @ptitude Observer data pump enables the export and import of @ptitude Analyst XML files.

4. Install @ptitude Observer database(s).

To be able to run @ptitude Observer, at least one database must be installed.

The database must be compatible to the latest installed @ptitude Observer version.

The installation of a new database or upgrading of an existing database is done through @ptitude Observer Database administrator.

If @ptitude Observer Database administrator component has not been installed, repeat step 3 and make sure to select @ptitude Observer Database administrator at Custom Setup screen.

- Start @ptitude Observer Database administrator by clicking on the shortcut on the start menu located under Programs \ SKF @ptitude Monitoring Suite X.Y \ @ptitude Observer Database Administrator.
- The instruction for installing Observer database is found in <u>Install Observer</u> <u>Database</u> section. In addition, further detailed information is found in @ptitude Observer Database Administrator Manual.

The database settings are stored in a connection file for each database.

- 5. Set up @ptitude Observer with language and register with the license key.
 - Start @ptitude Observer by clicking on the shortcut on the start menu located under Programs \ SKF @ptitude Monitoring Suite X.Y \ @ptitude Observer.
 - Select a language to use.
 - Register with the license key.

It is possible to change the language and license key after the initial settings have been made. For more information, refer to <u>Edit Observer Settings</u>.

6. Create a connection between @ptitude Observer and database(s).

The connection between @ptitude Observer and database(s) is described in detail in Getting Started section of @ptitude Observer User Manual.

7. Set up the configuration of the monitor settings.

To be able to use @ptitude Observer as an on-line system, the communication and database storage are performed by the @ptitude Observer monitor service. The configuration of the monitor settings is described in <u>@ptitude Observer</u> <u>Monitor Service</u>.

If @ptitude Observer monitor component has not been installed, repeat step 3 and make sure to select @ptitude Observer monitor at the Custom Setup screen.

8. Set up @ptitude Observer monitor computer.

If a PC is being used as the @ptitude Observer monitor computer, then <u>IMx/MasCon Network Settings</u> need to be configured and <u>Time synchronization</u> activated.

9. Upgrade @ptitude Observer database(s).

If there are any databases which have been used with a previous version of @ptitude Observer, then these need to be upgraded to the latest version in order to use them with the new version of @ptitude Observer. Please note that it is possible to run several different versions of @ptitude Observer software on the same computer. For more information, refer to <u>Software Upgrade.</u>

3 SQL Server Express Installation

Installation Procedure

1. Insert the SKF @ptitude Observer DVD.

If the installation program does not start, run the file "Setup1.exe" from the DVD.

2. Click Microsoft SQL Server.



Figure 3 - 1. Database Server Installation Start.

3. First, check the prerequisites before installing SQL Server Express 2014.

The prerequisites are the system requirements in order to be able to install SQL Server Express 2014. Which versions of Windows Installer, .NET Framework and Windows PowerShell are installed can be confirmed by checking "Control Panel/Add or Remove Hardware".

- Windows Installer 4.5 is required in order to install SQL Server Express 2014. If it is not installed, click the link **Windows Installer 4.5** and follow the installation guides.
- A minimum of .NET Framework 3.5 SP1 is required in order to install SQL Server Express 2014. If an earlier version is installed, click the link **.NET Framework 4** and follow the installation guides.
- Windows PowerShell 1.0 is required for Management studio express which is a free tool from Microsoft to administer SQL Server databases. However, this tool is not required to run @ptitude Observer.

If the prerequisites are met, click the link SQL Server Express 2014.



Figure 3 - 2. SQL Server Express 2014 Installation.

4 On the first Product key screen, click **Next** to continue.

😭 SQL Server 2014 Setup		x
Product Key Specify the edition of SQL Serv Product Key License Terms Global Rules Microsoft Update Install Setup Files Install Rules Setup Role Feature Selection Feature Selection Feature Selection Feature Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Ready to Install Installation Progress Complete	er 2014 to install. Validate this instance of SQL Server 2014 by entering the 25-character key from the Microsoft certificate of authenticity or product packaging. You can also specify a free edition of SQL Server, such as Evaluation as the largest set of SQL Server factures, as documented in SQL Server Books Online, and is activated with a 180-day expiration. To upgrade from one edition to another, run the Edition Upgrade Wizard. Specify a free edition: Express Enter the product key:	E
	< Back Next > Cancel	

Figure 3 - 3. SQL Server Express 2014 Installation.

5. On the License Terms screen, make sure to read through the license terms and agree to them. Click **Next** to continue the installation.

10 million 0 02 Server 2014, yo	u must accept the Microsoft Software License Terms.
Product Key	MICROSOFT SOFTWARE LICENSE TERMS
icense Terms	
olobal Kules	MICROSOFT SQL SERVER 2014 EXPRESS
vlicrosoft Update	These license terms are an agreement between Microsoft Corporation (or based on where you
nstall Setup Files	which includes the media on which you received it, if any. The terms also apply to any Microsoft
ietun Role	
eature Selection	updates,
eature Rules	supplements,
nstance Configuration	Ba /4
erver Configuration	Copy Print
Database Engine Configuration	I accept the license terms.
eature Configuration Rules	
Ready to Install	Turn on Customer Experience Improvement Program ("CEIP") and Error Reporting to help improve the guality, reliability and performance of Microsoft SOL Server 2014.
nstallation Progress	
Unpiece	See the Microsoft SQL Server 2014 Privacy Statement for more information.
	* Microsoft SOL Concer 2014 also includes a Visual Studie component that will have CEID settings turned
	off by default. If Visual Studio is installed, this component will use the CEIP settings for Visual Studio.

Figure 3 - 4. SQL 2014 License screen.

6. The SQL installation contains the service pack. Use Microsoft Update for updates. Click **Next** to continue.

😭 SQL Server 2014 Setup	
SQL Server 2014 Setup Microsoft Update Use Microsoft Update to check Product Key License Terms Global Rules Microsoft Update Install Setup Files Install Setup Files Setup Role Feature Selection Feature Rules	sr important updates Microsoft Update offers security and other important updates for Windows and other Microsoft software, including SQL Server 2014. Updates are delivered using Automatic Updates, or you can visit the Microsoft Update website. Use Microsoft Update to check for updates (recommended) Microsoft Update FAQ Microsoft Update Privacy Statement
Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Ready to Install Installation Progress Complete	< Back Next > Cancel

Figure 3 - 5. SQL Product Updates.

7. The setup will check if the computer is ready for installation. Click **Next** to continue.

Setup rules identify potential can continue.	problem	is that might occur while running Setup. Failures must be correcte	ed before Setup
Product Key License Terms Global Rules Vicrosoft Update nstall Setup Files	Ope Hi	ration completed. Passed: 6. Failed 0. Warning 1. Skipped 0. de details << v detailed report	Re-run
nstall Rules			6
etup Role		Kule	Status
eature Selection		Fusion Active Template Library (ATL)	Passed
edure nules		Previous releases of SQL Server 2008 Business Intelligence Devel	Passed
enver Configuration		Consistency validation for SQL Server registry keys	Passed
atabase Engine Configuration		Computer domain controller	Passed
eature Configuration Rules		Microsoft .NET Application Security	Passed
eady to Install		Windows Firewall	Warning
nstallation Progress		Block install when Microsoft SQL Server 2014 CTP1 is present.	Passed
Complete			

Figure 3 - 6. SQL check compliancy.

8. Setup SQL roles and then click **Next** to continue.

SQL Server 2014 Setup		
Click the SQL Server Feature In feature role to install a specific	nstallation option to individually select which feature components to install, or click a c configuration.	
Product Key License Terms Global Rules Microsoft Update Install Setup Files Install Rules Setup Role Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Ready to Install Installation Progress Complete	 SQL Server Peature Installation Install SQL Server Database Engine Services, Analysis Services, Reporting Services, In and other features. All Features With Defaults Install all features using default values for the service accounts. 	ntegration Services,
	< Back Next > Cancel	Help

Figure 3 – 7 SQL Roles.

9. When prompted to select which features to install, make sure to install at least the options Database Engine Services, Management Tools - Basic and Management Tools - Complete. Click Next.

Select the Express features to	install.				
Product Key	Features		Feature description:		
Product Key License Terms Global Rules Microsoft Update Install Setup Files Install Rules Setup Role Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Ready to Install Installation Progress Complete	Instance Features Ø Database Engine Services SQL Server Replicatio Shared Features Client Tools Connectivity Client Tools Backwards O Client Tools SDK Ø Management Tools - Bas Ø Management Tools - SQL Client Connectivity S LocalDB Redistributable Features	n ompatibility ic Complete iDK	The configuration and operation of each instance feature of a SQL Server instances is isolated from other SQL Server instances. SQL Server instances can operate side-by-side on Prerequisites for selected features: Already installed: Windows PowerShell 2.0 MicrosoftNET Framework 3.5 MicrosoftNET Framework 3.5 Toisk Space Requirements Drive C: 2232 MB required, 363397 MB available		
	Instance root directory: C:\Program Files\ Shared feature directory: C:\Program Files\ Shared feature directory (x86): C:\Program Files		\Microsoft SQL Server		
			\Microsoft SQL Server\		
			(x86)\Microsoft SQL Server\		

Figure 3 - 8. SQL Installation Feature Selection.

10. When the Instance Configuration screen is displayed, click **Next** to continue.

SQL Server 2014 Setup Instance Configuratio Specify the name and instanc	n e ID for the instance of S	QL Server, Instance	ID becomes part of f	the installation path.	
Product Key License Terms Global Rules Microsoft Update Install Setup Files Install Rules Setup Role Feature Selection Feature Rules	Default instance Named instance:	MSSQLSERVER			
	Instance ID:	MSSQLSERVER]
	SQL Server directory:	C:\Program Files\	Microsoft SQL Server	MSSQL12.MSSQLSER	VER
Server Configuration Database Engine Configuration Feature Configuration Rules Ready to Install Installation Progress Complete	Instance Name	Instance ID	Features	Edition	Version
	1		< Back	Next > Can	cel Help

Figure 3 - 9. SQL Installation Instance Configuration.

11. On the Server Configuration screen, click Next.

SQL Server 2014 Setup Server Configuration Specify the service accounts an	d collation configuration.				
Product Key License Terms Global Rules	Service Accounts Collation	use a separate account for each	SQL Server serv	ice.	
Microsoft Update	Service	Account Name	Password	Startup Typ	e
Install Setup Files	SQL Server Database Engine	NT Service\MSSQLSERVER		Automatic	-
Install Rules	SQL Server Browser	NT AUTHORITY\LOCAL		Disabled	-
Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Ready to Install Installation Progress Complete					
		< Back Next :	> Can	cel He	elp

Figure 3 - 10. SQL Installation Server Configuration.

12. On the Database Engine Configuration screen, select Mixed Mode authentication and choose a System Administrator password. In addition, SQL Server 2014 needs to have a SQL Server administrator specified. If unsure about which account to pick, it is recommended to click the **Add Current User** button.

Specify Database Engine authe	ntication security mode, a	administrators and i	lata directories.		
Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Installation Type License Terms Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Installation Progress Complete	Server Configuration Specify the authent Authentication Mod <u>Windows authen</u> <u>Mixed Mode (SQ</u> Specify the password: <u>Enter password:</u> <u>Confirm password:</u> Specify SQL Server a	Data Directories ication mode and a de L Server authentica rd for the SQL Serve e.e. administrators	User Instances dministrators fo ion and Windo r system admini	FILESTREAM or the Database En ws authentication istrator (sa) accou	gine.) nt
	Add <u>C</u> urrent User	Add	move		SQL Server administrators have unrestricted access to the Database Engine.

Figure 3 - 11. SQL Installation Database Engine Configuration.

13. On the Ready to install screen, click Next.

SQL Server 2014 Setup		
Ready to Install Verify the SQL Server 2014 fe	atures to be installed.	
Product Key License Terms	Ready to install SQL Server 2014:	
License Terms Global Rules Microsoft Update Install Setup Files Install Rules Setup Role Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Ready to Install	Suffridge Suffridge Action: Install Prerequisites Aready installed: Windows PowerShell 2.0 Microsoft Visual Studio 2010 Redistributables Microsoft Visual Studio 2010 Shell Microsoft Visual Studio 2010 Shell Microsoft NET Framework 4.0 General Configuration Features Management Tools - Basic Management Tools - Complete Role: AllFeatures_WithDefaults	E
Complete	Instance Configuration Instance Name: MSSOI SERVER III	+
	Configuration file path: C:\Program Files\Microsoft SQL Server\120\Setup Bootstrap\Log\20170207_133512\Configuration	nFile.ini
	< Back Install Cancel	Help

Figure 3 - 12. SQL Ready to install.

14. SQL Server will now install.

😭 SQL Server 2014 Setup	
Installation Progress	
Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Installation Type License Terms Feature Selection Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Feature Configuration Rules Installation Progress Complete	Initializing Windows Installer actions.
	Next > Cancel Help

Figure 3-13. SQL Installation in Progress.

15. After the installation is complete, click **Close**.

😭 SQL Server 2014 Setup		
Complete Your SQL Server 2014 installation	on completed successfully with product updates.	
Global Rules	Information about the Setup operation or possib	le next steps:
Microsoft Update	Feature	Status
Product Updates	Client Tools Connectivity	Succeeded
Install Setup Files	Client Tools SDK	Succeeded
Install Rules	Client Tools Backwards Compatibility	Succeeded
Installation Type	Database Engine Services	Succeeded
License Terms	SQL Server Replication	Succeeded
Feature Selection		
Feature Rules		
Instance Configuration	Details:	
Server Configuration	Viewing Product Documentation for SQL	Server
Database Engine Configuration	field and because and a set	E
Feature Configuration Rules	Only the components that you use to view a	nd manage the documentation for SQL Server have
Installation Progress	been installed. By default, the Help Viewer of	component uses the online library. After installing
Complete	your local computer. For more information is	ee Use Microsoft Books Online for SQL Server
complete	(<http: ?linkid="299</td" fwlink="" go.microsoft.com=""><td><u>9578>)</u>.</td></http:>	<u>9578>)</u> .
		· · · ·
	Summary log file has been saved to the following	location:
	C:\Program Files\Microsoft SQL Server\120\Setu	p Bootstrap\Log\20170208_101458
	\Summary SELULCND625418K 20170208 1014	<u>58.txt</u>
		Close Help

Figure 3-14. SQL Installation Complete.

4 @ptitude Observer Suite Installation

Installation Procedure

- 1. Insert the SKF @ptitude Observer DVD.
 - If the installation program does not start, run the file "Setup1.exe" from the DVD.
- 2. Click @ptitude Observer.

	Installation
SKF @ptitude Observer	 Windows Installer 4.5 (Installed) Installer 4.5 (Installed)

Figure 4 - 1. @ptitude Observer Installation Start.

3. The InstallShield® Wizard will guide the @ptitude Observer Suite installation. Click **Next** to continue.



Figure 4 - 2. InstallShield Wizard for @ptitude Observer Installation.

4. Select "I accept the terms in the license agreement" and then click Next.

License Agreement Please read the following license agreement carefully.	F
End-User License Agreement	
THIS END-USER LICENSE AGREEMENT (this "Agreement") is entered into by and between SKF USA Inc. and/or SKF Sverige AB (hereinafter referred to collectively as the "Licensor") and ar person or business that executes this Agreement by clicking the "I agree" icon at the end of this Agreement or by accessing, using, or installing the Software ("Licensee" or "You"). Licenson and Licensee shall be referred to collectively in this Agreement the Parties.	s iy e as
I accept the terms in the license agreement	t
◎ I do not accept the terms in the license agreement	
InstallShield	
< Back Next > Canc	el

Figure 4 - 3. @ptitude Observer Installation License Agreement.

5. Check the destination folder. If it was set to the correct folder, click **Next** to continue. Otherwise, click **Change** to install to a different folder.

Destinatio Click Ne folder.	on Folder ext to install to this folder, or click Change to install to a different
Þ	Install SKF @ptitude Observer 11.0 to: C:\Program Files (x86)\SKF\Observer11.0 \ Change
InstallShield	
THERE -	< Back Next > Cancel

Figure 4 - 4. @ptitude Observer Installation Destination Folder.

6. Choose a setup type and click **Next** to continue.

Client installation and **Server installation** will install all the necessary components. Go to step 8.

However, **Full / Custom installation** requires choices to be made on which components to install, as shown in the next step.

Setup Type								
Choose the setu	Choose the setup type that best suits your needs.							
Please select a s	setup type.							
🔘 Client installat	ion							
Se De Co	elect this option to install the client components of the ptitude Monitoring Suite.							
🔘 Server installa	tion							
Se C	Select this option to install the server components of the @ptitude Monitoring suite.							
Full / Custom i	nstallation							
Ch Ch al	noose which program features you want installed. For stand one installations, this option should be selected.							
InstallShield								
	< Back Next > Cancel							

Figure 4 - 5. @ptitude Observer Installation Setup Type.

7. Select programs to install, then click **Next**. Program(s) to install can be selected by changing the installation option. There are different installation options as shown below.

Custom Setup Select the program features you want installed.	SKF
Click on an icon in the list below to change how a feat	ure is installed.
Optitude Observer Optitude Observer Online Device Configura Optitude Observer Database Administrator Optitude Observer Monitor Optitude Observer Data pump	Feature Description Observer Client software used for analysing data.
	This feature requires 47MB on your hard drive.
4	
Install to: C:\Program Files (x86)\SKF\Observer11.0\ InstallShield	Change
Help Space < Back	Next > Cancel

Figure 4 - 6. Example of @ptitude Observer Installation Custom Setup.

Custom Setu Select the	p program features you want installed.	SKF
Click on an i	con in the list below to change how a feat	ure is installed. Feature Description
	This feature will be installed on local hard d This feature, and all subfeatures, will be inst	rive. alled on local hard drive.
×]	This feature will not be available.	This reature requires 47MB on your hard drive.
Install to: C:\Program F InstallShield — Hel	iii ►	Change Next > Cancel

Figure 4 - 7. @ptitude Observer Installation Custom Setup Options.

@ptitude Observer will now install. 8.

Installing : The pro	SKF @ptitude Observer gram features you selected are being installed.					
1 1 1	Please wait while the InstallShield Wizard installs SKF @ptitude Observer. This may take several minutes.					
	Status:					
	Copying new files					
InstallShield –						
	< Back Next > Cancel					

Figure 4 - 8. @ptitude Observer Installation in Progress.

9. Click Finish to complete the installation and exit InstallShield® Wizard.

InstallShield Wizard Completed
The InstallShield Wizard has successfully installed SKF @ptitude Observer. Click Finish to exit the wizard.
< Back Finish Cancel

Figure 4 - 9. @ptitude Observer Installation Finish.

After the InstallShield Wizard has completed, additional third-party components may be installed automatically by the installer. This may take a few minutes.

5 Install Observer Database

After the @ptitude Observer suite has been installed, it is necessary to connect the suite to an Observer database.

If an Observer database already exists, the database needs to be <u>upgraded to the</u> <u>version of the @ptitude Observer suite</u> installed.

If an Observer database does not exist, it is necessary to <u>install a new Observer</u> <u>database</u>.

Note - For more information about @ptitude Observer database administrator software, refer to **Observer Database Administrator Manual**.

Upgrade an Existing Observer Database

- 1. Start the @ptitude Observer database administrator software by clicking on the shortcut on the start menu.
- 2. Log in to the database server using the login credentials specified when installing the SQL server.

lamo	Version	1
	Version	
IMx-8 Alpha Test	10,5	
Observer	10,5	
Regression testing	10,5	



- 3. In the database list, select the database to be upgraded and click the menu option **Database / Upgrade selected databases**.
- 4. Browse for the database definition file which contains information about how to upgrade the database and click OK. The definition file can be found in the folder \NewVer\Database administrator on the Observer DVD.
- 5. After the procedure is finished, the selected database is upgraded and the @ptitude Observer database administrator software can be closed.

Install a New Observer Database

- 1. Start the @ptitude Observer database administrator software by clicking on the shortcut from the start menu.
- 2. Log in to the database server using the login credentials specified when installing the SQL server.
- 3. Click on the menu option Server / Create new database.

Name:	Observer
Database file Location:	C:\Program Files\Microsoft SQL Server\MSSQL12.MSSQLSERVER\MSS
	Create Bearings and Diagnostic rules
	Create <u>C</u> ancel

Figure 5 - 2. Example of Observer Create Database.

- 4. Select a database name (default is Observer) and select where the database files should be stored (default is SQL server data directory).
- 5. Click on **Create** button.

Important - The database name cannot be the same as an already existing database.

6. At the end of the Create database procedure, at the prompt, select the measurement units to use for the standard diagnosis in Observer and click the **Update** button.

6 @ptitude Observer Monitor Service

To be able to use @ptitude Observer as an on-line system, the communication and database storage are performed by the @ptitude Observer monitor service. There can be several @ptitude Observer monitor services installed at the same time.

Installing a Monitor Service

 To start a @ptitude Observer monitor service, start the @ptitude Observer Monitor Manager software by clicking on the shortcut on the start menu located in Programs\SKF @ptitude Monitoring Suite X.Y\@ptitude Observer Monitor Service Manager.

File Action Help						
i 🐅 🕨 🔳 🖻 🥔 🔄						
Registered Monitor Services On L	ocal Comput	ter				
Name	Version S	Startup method	Port	Status	Executable path	
🚳 IMx-8 Alpha Test	10.5 A	Automatic	1001	Stopped	C:\Program Files (x86)\SKF\Observer10.5\Moni	
Observer	10.5 A	Automatic	1000	Stopped	C:\Program Files (x86)\SKF\Observer10.5\Moni	
Regression testing	10.5 A	Automatic	1004	Stopped	C:\Program Files (x86)\SKF\Observer10.5\Moni	
						//

Figure 6 - 1. Example of @ptitude Observer Monitor (Service) Manager.

Observer Monitor (Service) Manager screen lists all the registered monitor services on the local computer.

Action allows the following interfaces:

- New adds new monitor services on the local computer.
- **Properties** can edit the properties of the already registered services through Connection interface.
- **Delete** deletes the selected registered service.
- Start starts the selected monitor service.
- Stop stops the selected monitor service.
- **Monitor Service Viewer** displays events, connections and status of the selected monitor service.
- View Log File views a log file for the selected monitor service.
- Refresh updates the list with most current information.

2. To register a new monitor service, click Action, then select New.

Name	Observer
Path:	C:\Program Files (x86)\SKF\Observer11.0\ Monit
Version:	11.0.0
Database connec	tion settings
Server:	SQL Server
Name:	(local)
Authentication:	SQL Server authentication
User name:	sa
Password:	
Parameters:	
Database	Observer
Service settings	
Port:	1000
Start delay:	20 s
Startup method:	Automatic

Figure 6 - 2.

Example of @ptitude Observer Monitor Service - Connection.

Name is a unique name which has to be given to the service. It will be used to identify the registered database connection on local computer. Once a new service is registered, the name cannot be changed.

Path defines the location of the executable file to be used as the service. The default path is C:\Program Files (x86)\SKF\Observer X.Y, (based on the software version X.Y).

Version displays the version of @ptitude Observer in use currently.

Database connection settings

Server is the type of database server such as SQL Server. The Monitor Service settings vary depending on the server type.

Name is for selection of a server from the list of databases. (local) means that the database is on the same PC.

Authentication defines whether to use Windows authentication or SQL Server authentication for SQL Server. This Authentication selection corresponds to the selections made when installing SQL Server Express at the <u>Database Engine</u> <u>Configuration screen</u>.

User name is the database user name.

Password is the password for the user.

Parameters allows additional parameters to be entered, for the connection. For example, to force TCP/IP protocol, enter "Network=DBMSSOCN;" in this text box.

Database is the selected database from a list of available databases on the database server.

Service settings

Port is used to assign which port the @ptitude Observer Monitor Service should use to communicate with @ptitude Observer and IMx devices. The default value is 1000.

Start delay is used to give the database server some time (in seconds) to start before @ptitude Observer monitor tries to open the connection. It is recommended to set this field to 20 for the startup method Automatic. Whereas, it is recommended to set this field to 0 for the startup method Manual.

Startup method sets the startup method of the service to either Automatic, Manual or Disabled.

- Automatic means that the service starts when the operating system boots up.
- Manual means that the service has to be started by the user either through @ptitude Observer Monitor Manager or through the services interface in windows.

le <u>A</u> ction <u>V</u> iew	Help						
	Q 📑 🛛 📰 🕨 🔳 H 🛛						
Services (Local)	O Services (Local)	-					
	ObsService_Observer11	Name	Description	Status	Startup Type	Log On As	
	and the second second second	Net.Pipe Listener Adapter	Receives act		Disabled	Local Service	
	Start the service	Net.Tcp Listener Adapter	Receives act		Disabled	Local Service	
		Net.Tcp Port Sharing Service	Provides abi		Disabled	Local Service	
		🕞 Netlogon	Maintains a	Started	Automatic	Local System	
		Network Access Protection Agent	The Networ		Manual	Network Service	
		Retwork Connections	Manages o	Started	Manual	Local System	
		Network List Service	Identifies th	Started	Manual	Local Service	
		Network Location Awareness	Collects an	Started	Automatic	Network Service	
		Network Store Interface Service	This service	Started	Automatic	Local Service	
		NVIDIA Display Driver Service	Provides sys	Started	Automatic	Local System	
		ObsService_Observer11			Automatic	Local System	
		🔍 Office Source Engine	Saves install		Manual	Local System	
		Office Software Protection Platform	Enables the		Manual	Network Service	
		🕞 Offline Files	The Offline	Started	Automatic	Local System	
		😘 OpcEnum		Started	Manual	Local System	
		Reported Controls	This service		Manual	Local Service	
		Peer Name Resolution Protocol	Enables serv		Manual	Local Service	
		🕞 Peer Networking Grouping	Enables mul		Manual	Local Service	
		Peer Networking Identity Manager	Provides ide		Manual	Local Service	
		🔍 Performance Counter DLL Host	Enables rem		Manual	Local Service	
		Performance Logs & Alerts	Performanc		Manual	Local Service	
		Rug and Play	Enables a c	Started	Automatic	Local System	

- **Disabled** means that the service is completely disabled.

Figure 6 - 3. Example of Window's Interface Services.

- 3. A recovery plan, in case of an unrecoverable error, of registered monitor services resides within Windows' interface **Services (Local)** which is located under Administrative Tools in Control Panel.
 - @ptitude monitor services start with the text "ObsService_".

Select an @ptitude monitor service, then select **Properties** under Action. Or, right-click on an @ptitude monitor service and select **Properties**. Select **Recovery** tab

elect the computer's respon	se if this servio	ce fails. <u>Help me set up recoverv</u>			
irst failure:	Restart the Service 🔹				
econd failure:	Restart the Service				
ubsequent failures:	Restart the Service				
Reset fail count after:	0	days			
estart service after:	2	minutes			
Enable actions for stops w Run program Program:	<i>r</i> ith errors.	Restart Computer Options			
		Browse			
Command line parameters	s d of command	l line (/fail=%1%)			

Figure 6 - 4. Example of Recovery Setting.

4. It is recommended to set the First, Second and Subsequent failures of the Recovery setting to **Restart the Service**.

7 Edit Observer Settings

Language and License Key

When installing @ptitude Observer, a setting file called @ptitude Observer.ini is installed in C:\Users\[User name]\AppData\Roaming\SKF\Observer X.Y\Observer.ini. This section describes the different settings in that file.

The following is an example of the contents of the @ptitude Observer.ini file:

[System]

Language=English

RegKey=X53BB8-91JJ45-XY13GH-PC333L-9XMCV6-PP

Language specifies which language to use.

RegKey is the license key entered when installing the product.

The language and license key entries in this file, may be edited.

Application Data Folder

With @ptitude Observer which folder to use as the application data folder can be specified (default is the user's own application data folder which is usually located in C:\Users\[Username]). The application data folder is used to store user specific data for the @ptitude Observer application such as connection files and .ini files.

One of two methods, described below, can be used.

Using the USE_APP_PATH Keyword on the @ptitude Observer Properties Shortcut

Using this USE_APP_PATH keyword will cause the @ptitude Observer system to use the same folder as the executable file which resides in for its application data.

🔊 @ptitude Obse	rver Properties
General Shortcut	Compatibility Security Details Previous Versions
e	ptitude Observer
Target type:	Application
Target location:	Observer11.0
Target	m Files (x86)\SKF\Observer11.0\ObserverWinUI.exe'
Start in:	
Shortcut key:	None
Run:	Normal window 🗸
Comment	
Open File Lo	Change Icon Advanced
<u>.</u>	
	OK Cancel Apply

Figure 7 - 1. Assigning the Executable File as an Application Folder.

Create a new shortcut to the ObserverWinUI.exe file by editing the @ptitude Observer X.Y Properties Shortcut.

Add the text USE_APP_PATH in the target field as shown in the screen shot, above.

Using a Custom Folder on the @ptitude Observer Properties Shortcut

Instead of using the USE_APP_PATH keyword, it is also possible to specify a custom folder as an application data folder, for example "C:\myfolder".

eneral Shortcut	Compatibili	ty Security	Details	Previous Versions		
P	ptitude Obser	ver				
Target type:	Application					
Target location:	Observer11.0					
Target	"C:\myfolder\Observer11.0\ObserverWinUI.exe"					
247-00 0/07	7					
Start in:						
Shortcut key:	None					
Run:	Normal window 🗸					
Comment:	-					
Open File Lo	ocation	Change Ic	on	Advanced		
1						

Figure 7 - 2. Assigning a Custom Folder as an Application Data Folder.

If it is difficult to locate the Observer.ini file, click on the shortcut "User Application data" folder on Programs \ SKF @ptitude Monitoring Suite X.Y \ @ptitude Observer.

8 IMx/MasCon Network Settings

This step is needed only if the computer is to be used as the @ptitude Observer Monitor computer.

Network Configuration

IMx/MasCon units use the TCP/IP protocol to communicate with @ptitude Observer Monitor. By default, the network setting for IMx/MasCon uses IP address of 10.0.0.1 and net mask of 255.255.255.0.

To use a different IP address, settings in IMx/MasCon units will need to be configured. The MasCon48 is configured using the digital display on the front panel, and MasCon16 and IMx units are configured by creating and sending a configuration file to the unit via @ptitude Observer On-line device configurator software.

For further information, refer to the corresponding IMx unit's User Manual and the **@ptitude Observer On-line Device Configurator User Manual**.

9 Time Synchronization

This step is only needed if the PC is being used as the @ptitude Observer monitor computer.

Activating Time Synchronization

IMx, MasCon16 and MasCon48 devices use a built-in function in Windows for time synchronization. The @ptitude Observer monitor computer is used as the reference for time in the IMx/MasCon system. In order to activate time synchronization, please follow the procedure below.

- 1. Open port 123 in the firewall. This is done a bit differently depending on the operating system and eventually external firewall.
- 2. Go to services and check that "Windows Time" service start-up method is set to "Automatic" and is started.
- 3. Double click on the file EnableTimeSync.reg in the Extra\TimeSync folder on the Observer DVD. This will enter information in the registry to enable the time synchronization service on the computer.
- 4. Stop and start "Windows Time" service to make this change take effect.

10 Software Upgrade

This section of the installation manual describes how to upgrade @ptitude Observer.

Important - It is strongly recommended that a backup of the database is created, before starting the upgrade procedure.

Guidance for System Upgrades and Updates

Before the upgrade is started, a full database backup should be made.

SKF does rigorous testing on new firmware and software. However, it is impossible to test all parameter permutations of a configurable system.

When a customer deploys a new version of SKF software or firmware, it is advised to test the configurations on a small scale under the real world operating conditions. A complete roll-out should only be performed one database at a time, after successful small-scale testing.

The SKF software has some specific tools that can help with the distribution of new firmware over a large fleet. The use of these tools is encouraged for the deployment of updates and upgrades.

Upgrade Procedure

- 1. Start @ptitude Observer database administrator.
- 2. Select the menu option Database, then Upgrade selected database.
- Select definition file which should be located in the same folder as @ptitude Observer or in the folder '[DVD]:\NewVer\Database administrator\' and has a file extension of .DEF. Click Ok to proceed.
- 4. Start @ptitude Observer.
- 5. Click the menu item **On-line** then select **IMx/MasCon** units.
- 6. Click the button **Firmware**.
- 7. Browse the folder for the firmware of the IMx/MasCon types being used. The files are located in the '[DVD]:\NewVer' folder.

Note that there is no need to uninstall the database manager such as SQL Server, in order to upgrade the system.

Important - After a database conversion, all diagnoses in the database need to be recalculated in the Observer software. Until this is done, all diagnoses will display the value 0. The recalculation can be done at Observer Hierarchy view, by right clicking on a node and selecting Configure\Recalculate diagnoses.

Appendix A End User License Agreement

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If Licensee is acquiring the Software for or on behalf of a subdivision of the U.S. federal government, this Section 16 shall apply. The Software was developed completely at private expense, is existing computer software, is a trade secret for all purposes of the Freedom of Information Act, is "restricted computer software" and in all respects proprietary data belonging solely to Licensor, and all rights are reserved under the copyright laws of the United States. Use, duplication, or disclosure by the Government is subject to restricted rights as set forth in subparagraphs (a) through (d) of the Commercial Computer Software Restricted Rights clause at FAR 52.227-19, or for DoD units, the restrictions as set forth in subparagraph (c)(1)(ii) of the **Rights in Technical Data and Computer** Software clause at DFARS 252.227-7013.

17. TRADEMARKS

Licensee agrees that SKF @ptitude Analyst, SKF @ptitude Inspector, SKF @ptitude Observer, SKF @ptitude Decision Support or any other software within the SKF @ptitude family suite and the trade dress, logos and other designations of source used by Licensor to identify the Software are trademarks or registered trademarks of Licensor. Licensee shall not use Licensor's trademarks or service marks without the prior written consent of Licensor. If the Software contains any active links to web sites, you agree to maintain such active links and not redirect or modify them.

18. GENERAL PROVISIONS

- (a) Complete Agreement. The Parties agree that this Agreement is the complete and exclusive statement of the agreement between the Parties, which supersedes and merges all prior proposals, understandings and all other agreements, oral or written, between the Parties relating to the use of the Software.
- (b) Amendment. This Agreement may not be modified, altered or amended except by written instrument duly executed by both Parties. Any purchase orders or other ordering documents issued to Licensee by Licensor shall not have the effect of amending or modifying this Agreement, and shall only serve to memorialize the number of licenses or products ordered by Licensee. In the event of a conflict between the PSP Policies and this Agreement, the terms of this Agreement shall control.
- (c) Waiver. The waiver or failure of either party to exercise in any respect any right provided for in this Agreement shall not be deemed a waiver of any further right under this Agreement.
- (d) Severability. If any provision of this Agreement is invalid, illegal or unenforceable under any applicable statute or rule of law, it is to that extent to be deemed omitted. The

remainder of the Agreement shall be valid and enforceable to the maximum extent possible.

- (e) Read and Understood. Each party acknowledges that it has read and understands this Agreement and agrees to be bound by its terms.
- (f) Limitations Period. No action arising under, or related to, this Agreement, may be brought by either party against the other more than two (2) years after the cause of action accrues, unless the cause of action involves death or personal injury.
- (g) Attorneys' Fees. In the event any litigation is brought by either party in connection with this Agreement, the prevailing party in such litigation will be entitled to recover from the other party all the costs, reasonable attorneys' fees, and other expenses incurred by such prevailing party in the litigation.
- (h) Authorized Representative. The person installing or using the

Software on behalf of Licensee represents and warrants that he or she is legally authorized to bind Licensee and commit Licensee to the terms of this Agreement.

Injunctive Relief. Licensee agrees (i) that Licensor may suffer irreparable harm as a result of a violation of Sections 2, 4, 6, 10, 15, and 17 of this Agreement and that monetary damages in such event would be substantial and inadequate to compensate Licensor. Consequently, Licensor shall be entitled to seek and obtain, in addition to such other monetary relief as may be recoverable at law or in equity, such injunctive other equitable relief as may be necessary to restrain any threatened, continuing, or further breach by Licensee without showing or proving actual damages sustained by Licensor and without posting a bond.

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