GENERAL INSTALLATION INFORMATION

Important: Administrator rights for the computer you are installing to are required for installation.

Before starting the installation process, ensure that the computer you will be installing to meets the minimum system requirements for the products you intend to install.

The following pre-requisites are installed automatically, if not detected by the system, when using the standard installation (setup.exe). For custom installations, ensure that all pre-requisites are installed first.

- Windows Installer 4.5
- .NET 4.0
- SQL Server 2014 SP3
- 64-Bit Shell Extension - for 64-bit systems only
- PPC Data Management Viewer

Note: Installing SMART Practice Aids - Risk Assessment is required if you want to use SMART Practice Aids - Internal Control or Field Work.

To configure Windows Firewall for use with the SMART Practice Aids database, see the information in Appendix C.

INSTALLATION OPTIONS

Several options are available for installing SMART Practice Aids from Checkpoint. Some common configurations are shown below.

Find the configuration you need below and proceed to the instructions for the scenarios noted.

Typical Installation

Local Machine

Local machine with SMART application, Microsoft SQL Server Express and SMART databases installed by the end user from CD or from Checkpoint
Basic Software Deployment

Local machine with SMART application, Microsoft SQL Server Express and SMART databases installed from an Administrative Installation Point on a network server

See Scenario 2: Basic Software Deployment to Multiple Machines (Administrative Install).

Client/Server Deployment

SMART application on local machines connected to one or more shared Microsoft SQL Server databases on network servers

See Scenario 3: Client/Server Installation with Database on Client and Server

– OR –

See Scenario 4: Client/Server Installation with Database only on Server.
Terminal Services or Citrix Deployment

Citrix or Terminal Services Server Farm
with SMART application installed

See Scenario 5: Client/Server Installation with Database Only on Server (Citrix Installation).

TYPICAL INSTALLATION

SCENARIO 1: INSTALLING TO AN INDIVIDUAL MACHINE

Single machine installation of the SMART Practice Aids application and local SQL Server Express database

From the machine, run the SMART Practice Aids installation (for all products/modules you need), selecting the Install to Local Machine option. Refer to the instructions in the End User Guide for Local Machine Installations.

BASIC SOFTWARE DEPLOYMENT

Install the SMART Practice Aids application and SQL Server Express database on multiple client machines.

The basic process creates administrative installation points (AIPs) on a network server/share for each product, which can then be used to deploy or install the products to your local workstations. The Checkpoint Tools for PPC and SMART Practice Aids products have been designed to take advantage of Microsoft’s Windows Installer technology (MSI). One of the many benefits of this technology is the ease with which you can prepare software for distribution. You can quickly and easily use Group Policy, SMS, batch scripting, etc. to create an unattended installation and enable remote deployment to client workstations.
Use the Product Install Wizard to run the SMART Practice Aids Administrative Installation (for all of the products/modules you need) to create separate administrative installation points for each product/module selected. This automating of an otherwise repetitive procedure will save you valuable time.

**Note:** An administrative installation point is a network server/share that contains installation files configured by an administrator for deploying the software throughout the organization.

Deploy to each workstation (using either the push or pull method). (See Appendix E - Deploying the Application to the End User.)

**Note:** This install is recommended for experienced Network Administrators only.

**SCENARIO 2: BASIC SOFTWARE DEPLOYMENT TO MULTIPLE MACHINES (ADMINISTRATIVE INSTALL)**

The following steps are recommended:

1. Create an administrative installation point for each SMART Practice Aids product you own, using the Administrative Install option of the Product Install Wizard.
2. Deploy the applications from the administrative installation points (See Appendix E - Deploying the Application to the End User.)

**Notes:**
SMART Practice Aids – Risk Assessment Content is required if you use any of the supported 2006 or later Checkpoint Tools for PPC titles with SMART Practice Aids – Risk Assessment

**ADMINISTRATIVE INSTALLATION**

1. Close all open programs, including any virus detection programs.
2. Start the PPC Web Installation Wizard.
3. Select Administrative Install to create an administrative installation point.
Note: If you have logged in from Checkpoint, the Checkpoint Acct. # associated with your user name will display automatically by default.

4. Click **Next** to see the products licensed to the Checkpoint Account.
5. Select the products you want to install.
6. Then click **Next** to select the framework version you need:
7. Click **Next**.

8. Check to see that the applicable install locations are set appropriately. A Default location is provided for SMART Practice Aids. If you need to change the SMART Practice Aids install location, click the **Browse** button and select a new folder, or type in the correct path.

   The **Administrative Install Location** should be set to a shared network location. An AIP will be created for each of the applications selected on the previous step for deploying the applications in your organization. (See Appendix E – Deploying the Application to the End User)

   **Note:** To create a new administrative installation point make sure the path that is set for the **Administrative Install Location** is not the same as previous administrative installations.

9. After you have set all needed locations, click **Next**.
Read the License Agreements for the selected products and accept them by selecting the check box next to each license listed.

10. Click **Install** to continue the administrative installation of the selected products.

11. The *Download Manager* dialog screen will indicate the progress of the download for each of the selected products and any required components. (This process may take several minutes, depending on the network conditions and the number of products you have selected.)
12. Once the downloads have completed successfully, the individual product and component install packages will be copied to the selected Administrative Install Location you selected. Subfolders will be created under the Administrative Install Location for each product that was selected.

13. Once the installation process is complete, you will see a list of the selected products along with the administrative installation status and the full path to each product’s administrative installation point.
14. If needed, click the **Print** button to print this information.

15. Click **Finished** to complete the process.

The install packages are now ready for either attended or unattended installations from the Administrative Installation Points for your selected products.

### ADVANCED SOFTWARE DEPLOYMENT

Before starting an advanced software deployment, be sure you have read and understand the instructions for a basic software deployment.

Using the advanced software deployment, an administrator can perform the following tasks:

- Setup a shared database on a network server.
- Configure the application installation to pre-populate the list of available database servers.
- Configure the default database server the user will connect to when the application starts up.

**Note:** This install is recommended for **experienced** Network Administrators only.
SCENARIO 3: CLIENT/SERVER INSTALLATION WITH DATABASE ON CLIENT AND SERVER

This scenario results in users having both a local database and one or more shared databases.

1. Setup Shared databases (TOCTTARGPPC05 SQL instance) on the servers. (See Setting up a Shared Database.)

2. Run the SMART Practice Aids Administrative Installation (for each product/module) directly from the setup.exe—using a command line and selecting both the database and the application under the Custom Setup Type option. (See Creating an Administrative Installation Point for Deploying the Application, Including Setting Up a Local Database to connect to shared databases and set up a local database.)

3. Deploy to each workstation. (See Appendix E - Deploying the Application to the End User.)

Note: If SMART Practice Aids is already installed on end users’ machines prior to setting up a shared database on a network server, those users will need to point to the shared database from the SMART Practice Aids menu: Tools>Options>Point to a Different Database.

SCENARIO 4: CLIENT/SERVER INSTALLATION WITH DATABASE ONLY ON SERVER

SMART Practice Aids products are installed to local workstations with no local database and are configured to use one or more shared network databases.

1. Setup shared databases (TOCTTARGPPC05 SQL instances) on the servers.

2. Run the SMART Practice Aids Administrative Installation (for each product/module) directly from the setup.exe—using a command line and selecting the application only under the Custom Setup Type option. (See Creating an Administrative Installation Point for Deploying the Application Without Setting Up a Local Database to connect to shared databases only.)

3. Deploy to each workstation. (See Appendix E - Deploying the Application to the End User.)

SCENARIO 5: TERMINAL SERVICES OR CITRIX INSTALLATION

SMART Practice Aids products are installed to Terminal Services or Citrix servers with no local database and are configured to use one or more shared network databases.

1. Setup Shared databases (TOCTTARGPPC05 SQL instance) on the servers.

2. Run the SMART Practice Aids Administrative Installation (for each product/module) directly from the setup.exe—using a command line and selecting the application only under the Custom Setup Type option. (See Creating an Administrative Installation Point and Configuring Workstation Installation to connect to shared databases and/or setup local database.)

3. Deploy to each Citrix server. (Use either the push or pull method.)

General Tips:

- SMART Practice Aids was certified for use in Citrix XenApp Server 5, 6 and 6.5. For Citrix use, we recommend using one or more shared databases on database servers.
• Because of an issue with Microsoft .Net Framework, we recommend that **High** color (16-bit) be selected in Citrix as the color setting in Application Properties under Advanced/Appearance for SMART Practice Aids.

• We recommend that an experienced Citrix administrator install these products to the Citrix and database servers.

• Before starting the installation process, ensure that your Citrix environment meets our **minimum system requirements** for SMART Practice Aids.

• Based on load testing, it is estimated that each Citrix server can accommodate 55-60 concurrent users before reaching the 80 percent maximum utilization.

**To install in Citrix:**

1. **Install one or more SMART Practice Aids databases on database servers.**
   - For detailed instructions, see the section on [Setting up a Shared Database](#).
   - We do not recommend the use of databases on the Citrix servers since users are not guaranteed that they will be assigned that same server every time they log in.
   - By setting up a shared database, the user profile will point to the shared database server every time.

2. **Install SMART Practice Aids, the related Checkpoint Tools for PPC titles, and Microsoft Office with the appropriate service packs, according to minimum machine requirements, on each server in your Citrix environment.**
   - For SMART Practice Aids, see the [Creating an Administrative Installation Point for Deploying the Application Without Setting Up a Local Database](#) section of this guide for instructions on installing just the SMART Practice Aids application to the Citrix servers and configuring it to point to the shared databases created in step 1.
   - It is recommended that you designate a single, shared network location for the Checkpoint Tools for PPC templates. When installing each title, set the template path to this shared location so the templates are not duplicated unnecessarily on all Citrix servers. (This will prevent different servers from ending up with different versions of the same Checkpoint Tools for PPC templates.)
   - When installing Office 2007 or greater, you will need an **Enterprise** key or a **Volume License** key, which uses Volume Activation 1.0 and does not require activation.
     - Utilize the Office Customization Tool to set options on the terminal server.
     - Use the Setup command to delete identifying information recorded to the terminal server shadow registry key.
     - Utilize Microsoft Update to ensure that the latest service packs and **hotfixes** are installed.
   
   **Note:** If you also have CCH's Engagement Terminal Services 5.0 client installed, it may be necessary to uninstall this product, as well as Microsoft SQL Native Client, prior to installing SMART Practice Aids; then reinstall the CCH product.

3. **Resolve a known Citrix issue:** Install the following registry key so that linking from Checkpoint Tools for PPC documents or SMART Practice Aids applications to material on Checkpoint or PPC’s Reference Library will work properly:
   
   a) Open Notepad and enter the following information:
   
   ```plaintext
   Windows Registry Editor Version 5.00
   ```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Citrix\wfshell\TWI]
"SeamlessFlags"=dword:00080000

b) Save this file (as seamless.reg, for example).
c) Copy the registry file to a location on your network that a Citrix administrator can access.
d) Log in to the Citrix servers and merge the registry file into the registry of that server.
   **Important**: No users should be logged in at this point!
e) Optionally, you can create a script to run the registry merge to all Citrix servers automatically.

**DOWNLOAD ONLY (WEB INSTALLER OPTION)**

Intended for advanced users, the **Download Only** option downloads the installation files for SMART Practice Aids to your computer for use with more advanced installation options.

For a Downloads Only installation, perform the following steps:
1. Close all open programs, including any virus detection programs.
2. Start the **PPC Web Installation Wizard**.
3. The **Welcome to the Product Install Wizard** screen will prompt you to select an installation type (Install to Local Machine, Administrative Install, or Download Only). Your Checkpoint account number (if applicable) defaults in the appropriate field.
The Download Only option is intended for advanced users who want to configure the application installations for SMART Practice Aids. It saves the installation files to the default download location so an administrative user can configure an advanced installation of the database, administrative installation point, and/or workstation installs.

4. Click Next to display the Product Download Selection screen.
PPC’s SMART Practice Aids® – Single Audit. An additional database (named SPS) is available for storing your single audit engagements:

This comprehensive technology application walks you through the entire Single Audit process. You will be able to use this automated solution to reduce errors and to comply with increased complexity, more frequently changing rules, and an increased number of major programs in existing single audits.

Only SMART Practice Aids products will be listed on the Product Selection screen because they are the only products currently available for Download Only.
5. Select the products you want to download.

6. Click **Next** to display the *Product Install Locations* screen.

7. Use the default *Installation Download Location* or change it to your desired download location.
8. Click **Next** to start the download.

9. When all products have finished downloading, the *Download Products Status* screen will be displayed:

   ![Download Products Status](image)

   The Thomson Reuters Download Manager shows you the progress of the downloads.

   Notice above that the *Download Products Status* screen displays the paths to the downloaded products and also displays the access code for each product.
IMPORTANT! You will need to enter these access codes later to complete the Client/Server installation. Write them down now or click Print to capture all of the access codes!

10. Select the Print option to print the download status information.
11. Select Finished to complete the download process.

Default Path for Product Downloads:
C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG
Subfolders will be created under the download location for each product selected.

SETTING UP A SHARED DATABASE

Installing a shared database to a server on the network allows you to share information more efficiently by using one or more common network databases. Install the SMART Practice Aids database on one or more network servers, and (optionally) on the individual workstations.

A shared database can be set up from either the SMART Practice Aids – Risk Assessment, Disclosure, Compilation and Review, or Audit Essential installation. The database setup only needs to be run from one of these products.

Note: If a shared database is created after SMART Practice Aids is installed on the end user’s machine, each user will need to point to the shared database from the SMART Practice Aids menu Tools>Options>Point to a Different Database. If a shared database is created prior to installing SMART Practice Aids on a workstation, the administrative installation point can be configured to contain the location of the shared databases. (See the Creating an Administrative Installation Point for Deploying the Application.) Users must be running a compatible version of the application to connect to the shared database.

Tip: The best practice is to run the database installation on the server that you want it installed on.

Using SQL Server Express to Set Up a Shared Database

Important notes regarding network server installations that use SQL Server Express:

A database in Microsoft SQL 2014 SP3 Express or later version can contain a maximum of 10 GB of data, but this capacity may not be sufficient if a single database is used by lots of people. It is strongly recommended that you monitor the size of any shared database and that—by using the Backup and Delete functions—you proactively manage the number of engagements stored, or use multiple databases and procedurally distribute the engagements among the multiple databases.

Example:
Server 1 has a database installed for Clients A-M.
Server 2 has a database installed for Clients N-Z.

You can have only one instance of the SMART Practice Aids database on a server.

To ensure optimal performance of the database, we strongly recommended that you keep the number of engagements in the database to a minimum – our typical recommendation is no more than 500. (When using a SQL Server Express instance, SMART Practice Aids will warn you every time you open the application if there are more than 500 engagements in the database.) However, you may be able to work...
with more engagements in the database depending on the nature of the engagements, the number of concurrent users of the database, and the maintenance plan employed by your firm.

We also strongly recommended that you establish maintenance and recovery plans for the database. You can use the new PPC Data Management Viewer tool to perform common maintenance and recovery tasks more easily, such as creating database backups, maintaining indexes and deleting unused content. This tool is installed with SMART Practice Aids, under the Tools folder. See the “Maintenance Schedules” section of the PPC Data Management Viewer help documentation for additional information.

**SQL Server Express does not automatically warn you when you reach the maximum database capacity.**

To install SQL Server Express on a network server, perform the following steps:

1. Complete the [Download Only option for the PPC Web Installation Wizard](#), or insert the SMART DVD into the drive.

   Record/print the download location from the final screen of the PPC Web Installation Wizard. You will need this path in the next step.

   The installation files are downloaded to “<My Documents>\Downloads\Thomson\TTA\RG.” The installation files for each product are saved to a separate subfolder. For example, the SMART Practice Aids – Risk Assessment installation files are saved to “C:\Documents and Settings<user ID>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010.”

2. Browse to the MSI file and double-click it to run it.

   For example, if the installation was downloaded from the Web, browse to:
   "C:\Documents and Settings<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010"

3. Run the Command Prompt: Start>Run>CMD, which opens the following window:

4. At the command prompt, type the path to setup.exe, located in the product folder you opened in step 2. Be sure to include double quotation marks at the beginning and end of the path to setup.exe.

   For example:
   C:\>"C:\Documents and Settings<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010\setup.exe"

   **Tip:** You can also drag setup.exe and drop it on the command prompt window instead of typing the full path to setup.exe.

5. Then type the /s command line parameter and the path to the shared downloads folder. Be sure to include double quotation marks at the beginning and end of the path to the shared downloads folder.

   Installation files that are shared between products are downloaded to the shared downloads folder. The path to the shared downloads folder is:
   C:\Documents and Settings<user name>\My Documents\Downloads\Thomson\TTA\RG\Shared
Your command should now resemble:

```
C:\>"C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010\setup.exe" /s:"C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\Shared"
```

**Tip:** After typing "/s:" at the command prompt, you can drag the shared folder and drop it into the command prompt window instead of typing the full path to the shared folder.

6. Press **Enter** to run this set of instructions.

7. The **License Agreements** screen for the SMART Practice Aids – Risk Assessment installation opens, showing all of the prerequisites that also have license agreements. The box next to each item must be marked to indicate the license agreement has been read and accepted.

8. Click **Install**. After all of the prerequisites have been installed, the **Welcome** screen for the application installation wizard opens:
9. Click Next.

The License Agreement dialog screen opens:

**LICENSE AGREEMENT**

PLEASE READ THIS AGREEMENT CAREFULLY. BY USING ALL OR ANY PORTION OF THE THOMSON REUTERS (TAX & ACCOUNTING) INC., DBA RIA AND/OR PPC (“TRTA”) PRODUCT YOU ACCEPT ALL THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT AND OF THE ORDER FORM. YOU AGREE THAT THIS LICENSE AGREEMENT AND ORDER FORM ARE ENFORCEABLE LIKE ANY OTHER WRITTEN NEGOTIATED AGREEMENT SIGNED BY YOU. IF YOU DO NOT AGREE, DO NOT USE THIS PRODUCT.

1. **Definition of Terms.**

- I accept the terms in the license agreement
- I do not accept the terms in the license agreement

**Welcome to the InstallShield Wizard for PPC SMART Practice Aids - Risk Assessment**

The InstallShield(R) Wizard will install PPC SMART Practice Aids - Risk Assessment on your computer. To continue, click Next.

WARNING: This program is protected by copyright law and international treaties.
10. Accept the License Agreement and click **Next**.

   **Note**: To print the license agreement, click **Print**.

11. On the Product **Access Code** dialog screen, type your access code and click **Next**.

   For help in finding your product access code, click **Look up Access Code**.

   **Note**: If the installation was launched from a Web download, the product access code will be on the **Finish** dialog screen of the Web installer.

12. Click **Next**.

   The **Setup Type** dialog screen opens:

13. Select **Custom** and click **Next**.
Having selected **Custom**, you would see the **Custom Setup** screen, from which you can select **Application** and/or **Database** installation. *(Clear the check box next to **Application** to install just the database.)*

Notice that several screens provide a **Help** feature to give you a better understanding of your options. For example, if you click **Help** next to **Application**, you will see the following explanation:

**Application**

Select this option to install the PPC SMART Practice Aids - Risk Assessment application. If this is the only option selected then the database will not be configured for this version of the application and it is expected that a database has already been configured on another server on your network. If the administrator has configured this installation to connect to this server and this is the first time you have installed and used PPC SMART Practice Aids then the application will connect to this server when it is run. If the administrator did not configure this installation to connect to a server or you have run any version of PPC SMART Practice Aids before you will have an opportunity to connect to a database server configured for this version of the application when you run the application.
14. Click **Next** at the bottom of the *Custom Setup Help* screen.

The *Database Server* dialog screen opens, giving you the opportunity to enter the Windows server where the TOCTARGPPC05 instance is installed and the credentials for this SQL instance.

The default Windows Server Name is "(local)" and you can change it. If you are running this installation on the Windows Server the SQL instance is installed on (recommended), you do not need to change the Windows Server Name.

The SQL instance name is displayed for informational purposes only and cannot be changed.

The administrator can use the "**Connect using**" options to specify the login type for the SQL database:

- "Windows authentication…" uses the credentials of the current user.
- "Server authentication using the existing Login ID and password…" is the default and uses the credentials of the SQL Server Express instance for the PPC SMART Practice Aids installer.

**Note**: By default, the Login ID and password were set up for the SQL Server Express instance installed by the SPA installation. If users have set up their own SQL instance, they will need to change these values. These options are used only to connect to the SQL instance during the installation. The user running the installation can use either mode to connect to the specified SQL instance to configure the database for SPA. However, for the SMART Practice Aids application to connect to the database, the SQL instance must have been setup to use SQL mixed mode security.

15. Click **Next**.

The *Ready to Install the Program* screen opens:
16. Click **Install** to setup/upgrade the database. The last screen in the InstallShield Wizard opens:

17. Click **Finish** to end the installation process. You now have a SQL Server Express instance installed on the server that you can use with PPC’s SMART Practice Aids application.
Reminder: Instruct users who already have SMART Practice Aids installed (providing the location of the database) to point to the shared database from the SMART Practice Aids menu: Tools>Options>Point to Different Database.

Note: Alternatively, during the installation of SMART Practice Aids, you can use the Administrative Install option to configure the shared database.

Installing SQL Server Express to an Alternate Drive

By default, SQL Server Express will be installed to the local Program Files drive. If, for some reason, you are unable to install to the Program Files drive, you can configure SQL Server Express to be installed to a different drive by following these steps:

Note: The following instructions apply to SQL Server 2008 Express and above. These instructions will not work with earlier versions of SQL Server Express and may not work with other editions of SQL Server.

Run the SQL Express installation file that is downloaded with the application. We recommend that instead of just running the installation from Windows Explorer, that you run it from a command line with the following parameters. Running the installation from the command line with these parameters will set the defaults for you and run the installation without user interaction.

For a 64-bit Windows OS run SQLEXPR_x64_ENU.exe.

For a 32-bit Windows OS run SQLEXPR_x86_ENU.exe. The 32-bit installer may also be run on a 64-bit Windows OS if the 32-bit version is preferred. The following instructions will use the 32-bit SQL Express installation. The 64-bit SQL Express installer can be substituted anywhere the 32-bit installer is used and be sure the target installation folder is for 64-bit applications.

Note: Running the installation with these command line parameters signifies your acceptance of the Microsoft SQL Server Express license agreements.

First Time Installation

[path to SQLEXPR_x86_ENU.exe]\SQLEXPR_x86_ENU.exe /qs /hideconsole /action=Install /features=SQLEngine,Conn,SSMS /instancename="<path to installation folder>" /instancename=TOCTTARGPPC05 /enableranu=1 /SECURITYMODE=SQL /SAPWD=!2vfChNQbG /sqlsvcaccount="NT Authority\Network Service" /SQLSVCSSTARTUPTYPE="Automatic" /AddCurrentUserAsSqlAdmin /IAcceptSqlServerLicenseTerms /skiprules=RebootRequiredCheck /npenabled=1 /tcpEnabled=1 /browsersvcstartuptype=Automatic

Note: If you need to allow remote installations and the server on which you installed SQL Server Express has a firewall enabled, such as Windows firewall, you will need to allow network traffic to pass. See Appendix C for more details.

Upgrade Installation

[path to SQLEXPR_x86_ENU.exe]\SQLEXPR_x86_ENU.exe /action=Upgrade /instancename=TOCTTARGPPC05 /IAcceptSqlServerLicenseTerms /skiprules=RebootRequiredCheck
Other things to keep in mind when upgrading SQL Express

- When upgrading SQL Express the installer only allows upgrading from x86 to x86 or from x64 to x64. Please be sure to use the appropriate SQL Express installer when performing the upgrade.
- The upgrade installation does not change the location of the SMART Practice Aid databases. If you want to move the databases you will have to do this manually.

Shared Databases Using an Edition of SQL Server Other Than Express

1. Install a new instance of SQL Server 2014 SP3. The new instance must have the following attributes:
   - The instance name must be TOCTTARGPPC05.
   - The instance must use SQL mixed mode security.
2. Once the new SQL Server instance is installed, the SPA database needs to be configured.
   
   On the same server where the new SQL instance was installed, download the Smart Practice Aids – Risk Assessment, Disclosure, Compilation and Review or Audit Essential installation. [See Download Only (Web Installer Option).]

   **Tip:** You can copy a downloaded installation from any machine to run it locally.

3. Browse to the MSI file and double-click it to run it.

   For example, if the installation was downloaded from the web, browse to:
   "C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010\SPRApplication"

   If you are installing from the DVD, browse to:
   <disc drive letter>:\SPRE\SPRApplication

   **Note:** If the application is already installed when running the MSI file directly, you may receive an error message about another version of the product already being installed. Appendix B – Upgrades has more detailed information about running the installation when this occurs.

4. Continue with step 9 from "Setting up a shared database using SQL Server Express."

   **Reminder:** Instruct users who already have SMART Practice Aids installed (providing the location of the database) to point to the shared database via the SMART Practice Aids menu: **Tools>Options>Point to Different Database.**

   **Note:** Alternatively you can use the Administrative Install option to configure the application to point to the shared database.

CREATING AN ADMINISTRATIVE INSTALLATION POINT FOR DEPLOYING THE APPLICATION
Without Setting Up a Local Database

**Note:** When using this process, network administrators must deploy .Net 4.0 to the end users’ machines. If these prerequisites are not installed, the SMART Practice Aids will not work.

To install a SMART Practice Aids product to a workstation without a local SQL Server Express instance and database, repeat these steps for each of the SMART Practice Aids products:

1. Complete the Download Only option for the PPC Web Installation Wizard, or insert the SMART DVD into the drive.

   Record/print the download location from the final screen of the PPC Web Installation Wizard. You will need this path in the next step.

   The installation files are downloaded to “<My Documents>\Downloads\Thomson\TTA\RG.” The installation files for each product are saved to a separate subfolder. For example, the SMART Practice Aids – Risk Assessment installation files are saved to “C:\Documents and Settings\<user ID>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010.”

2. Browse to the MSI file.

   For example, if the installation was downloaded from the web, browse to:
   "C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010\SPRApplication"

3. Run the Command Prompt: Start>Run>CMD, which opens the following window.

4. At the command prompt, type the following:

   **msiexec /a**

5. Then type a space and the path to MSI file located in the product folder you opened in step 2. Be sure to include double quotation marks at the beginning and end of the path to the MSI file.

   For example:
   "C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010\SPRApplication\PPC SMART Practice Aids - Risk Assessment.msi"

   **Tip:** You can also drag MSI file and drop it into the command prompt window instead of typing the full path to the MSI file.

6. At this point, the command prompt should look similar to this example:

   **C:\>msiexec /a "C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010\SPRApplication\PPC SMART Practice Aids - Risk Assessment.msi"**

7. Press Enter to run this set of instructions.

8. Click Next on the Welcome screen for the application installation wizard.

9. Accept the license agreement and click Next.

10. Type the Access Code for the product you want and click Next.
11. Change the Destination Location if the default is not the installation path you want on the end users’ machines and click **Next**.

The *Database Setup* screen opens:

12. Uncheck the first option (**Setup Local Database**).

13. Check the second option (**Set Available Windows Server(s)**), and replace "(local)" with the name of the server on which the SMART Practice Aids database resides. (See *Setting Up a Shared Database*.)

14. Check the third option (**Set Default Windows Server**) and also type the server name as the default Windows server.

   **Note:** Setting up the default is good only for a new installation. If a user already has other servers installed and has defined a default, this installation will not overwrite their default but will add the server to their list, as needed.

15. Click **Next**.

If SMART Practice Aids – Disclosure is being installed, the *Firm Library Database Setup* screen will open. For other products, proceed to step 16.

Firms have the option to use a separate database for their firm library of disclosure notes, or they can utilize the same (engagement) database. Installation is the same process, however, if you want to install a separate database for the firm library on a different server. (See *Setting Up a Shared Database*.)
Leave both options unchecked to use the same databases established for engagement data on the previous screen. (Unchecked, servers are listed, but they are grayed out on this screen.) To configure the user’s SMART Practice Aids application to use a separate database for Firm Library, check the options and designate the appropriate server.

16. Click **Next** to open the *Network Location* screen to identify the destination folder for the administrative installation.
17. Click the **Change** button to go to the *Change Current Destination Folder* screen:

18. In the **Folder Name** field, type the location on the network where you want the administrative installation point stored.

19. Click **OK**.
20. Click **Install** to install the SMART Practice Aids product.

21. Click **Finish** to close the installation wizard.

The administrative installation point can now be used to deploy SMART Practice Aids to the end users’ workstations. [See Deploying the Application Only (No Local Database) for details.]

### Including Setting Up a Local Database

To create an administrative installation point (AIP) and configure the workstation installation to connect to shared databases and setup a local database, perform the following steps:

1. Complete the **Download Only option for the PPC Web Installation Wizard**, or insert the SMART DVD into the drive.
   
   Record/ print the download location on the final screen of the PPC Web Installation Wizard. You will need this path in the next step.

   The installation files are downloaded to “<My Documents>\Downloads\Thomson\TTA\RG.” The installation files for each product are saved to a separate subfolder. For example, the SMART Practice Aids – Risk Assessment installation files are saved to “C:\Documents and Settings\<user ID>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010.”

2. Browse to the product installation folder.
   
   For example, if the installation was downloaded from the web, browse to:
   
   “C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010”

3. Run the Command Prompt: **Start>Run>CMD**, which opens the following window.

4. At the command prompt, type the path to setup.exe, located in the product folder you opened in step 2. Be sure to include double quotation marks at the beginning and end of the path to setup.exe.
   
   For example:
   
   `C:\>"C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\2010\setup.exe"`

   **Tip:** You can also drag setup.exe and drop it into the command prompt window instead of typing the full path to setup.exe.

5. Then type the `/s` command line parameter and the path to the shared downloads folder. Be sure to include double quotation marks at the beginning and end of the path to the shared downloads folder. Installation files that are shared between products are downloaded to the shared downloads folder. The path to the shared downloads folder is:
   
   `C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\Shared`
Your command should now resemble:

`C:\>` "C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\setup.exe" /s:"C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\Shared"

**Tip:** After typing " /s:" at the command prompt, you can drag the shared folder and drop it into the command prompt window instead of typing the full path to the shared folder.

6. Add `/a:" to run the bootstrapper in administrative mode.

Your command should be similar to this:

`C:\>` "C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\setup.exe" /s:"C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\Shared" /a

7. Then add `/aip:<path to Administrative Installation Point>` to set the AIP base path, that is, the path to the folder where the administrative installation point is to be stored.

Your command should be similar to this:

`C:\>` "C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\setup.exe" /s:"C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\Shared" /a /aip:"\install_apps\ThomsonReuters\SPR\2010"

8. Add `/save`, which gives you the option to save settings passed on the command line. This is necessary to save the shared download path to the INI file for later use. When running an administrative installation (/a), this will also set AdminPackage=true in the INI file saved to the /aip path.

Your command should be similar to this:

`C:\>` "C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\SPRE\setup.exe" /s:"C:\Documents and Settings\<user name>\My Documents\Downloads\Thomson\TTA\RG\Shared" /a /aip:"\install_apps\ThomsonReuters\SPR\2010" /save

9. Press Enter to run this set of instructions.

10. On the License Agreements screen, accept the licenses for all products/prerequisites (based on the machine the products are installed on).
11. Click the **Install** button.

12. Click **Next** on the **Install Shield Wizard Welcome** screen.

13. Click **Next** on the **Welcome** screen for the application installation wizard.

14. Accept the license agreement and click **Next**.

15. Type the Access Code for the product you want and click **Next**.

16. Change the Destination Location if the default is not the installation path you want on the end user's machines and click **Next**.

   The **Database Setup** screen opens:
17. Leave the first option checked: **Setup Local Database**.

18. Check the second option (**Set Available Windows Server(s)**, and add the name of the server on which the SMART Practice Aids database resides. (See **Setting Up a Shared Database**.)

   The server names should be separated by commas. For example: 

   (local),ServerName1  

19. Check the third option (**Set Default Windows Server**) and also type the server name as the default Windows server.

   **Note:** Setting up the default is good only for a brand new installation. If a user already has other servers installed and has defined a default, this installation will not overwrite their default, but will add the server to their list as needed.

20. Click **Next**.

   If SMART Practice Aids – Disclosure is being installed, the **Firm Library Database Setup** screen will open. For other products, proceed to step 21.

   Firms have the option to use a separate database for their firm library of disclosure notes, or they can utilize the same (engagement) database. Installation is the same process. However, if you want to install a separate database for the firm library on a different server, see **Setting Up a Shared Database**.

   Leave both options unchecked to use the same databases established for engagement data on the previous screen. (Unchecked, servers are listed, but they are grayed out on this screen.) To configure the user’s SMART Practice Aids application to use a separate database for Firm Library, check the options and designate the appropriate server.
21. Click **Next** to open the *Network Location* screen to identify the destination folder for the administrative installation.

22. Click the **Change** button to go to the *Change Current Destination Folder* screen:
23. In the **Folder Name** field, type the location on the network where you want the administrative installation point stored.

24. Click **OK**.

25. Click **Install** to install the SMART Practice Aids product.

26. Click **Finish** to close the installation wizard.

The administrative installation point can now be used to deploy SMART Practice Aids to the end users’ workstations. (See Appendix E - Deploying the Application to the End User.)

### APPENDIX A – COMMAND LINE PARAMETERS AND INI SETTINGs

#### Command Line Options for the Bootstrapper (setup.exe)

<table>
<thead>
<tr>
<th>Command</th>
<th>Equivalent INI File Settings</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>-accept</strong></td>
<td>AcceptAllEulas=true</td>
<td>false</td>
</tr>
<tr>
<td><strong>-a</strong></td>
<td>AdminInstallation=true</td>
<td>false</td>
</tr>
<tr>
<td><strong>-adminPackage</strong></td>
<td>AdminPackage=true</td>
<td>false</td>
</tr>
<tr>
<td><strong>-aip</strong></td>
<td>AipBaseDirPath=&lt;path to administrative installation point&gt;</td>
<td>// &quot;:-aip:&lt;path&gt; : Sets the AIP base path, which is the path to the folder where the administrative installation should be stored.</td>
</tr>
<tr>
<td><strong>-logMsi</strong></td>
<td>LogMsiInstalls=true</td>
<td>false</td>
</tr>
<tr>
<td><strong>-nolog</strong></td>
<td>DisableLogging=true</td>
<td>false</td>
</tr>
<tr>
<td><strong>-save</strong></td>
<td></td>
<td>// &quot;:-save : Option to save settings passed on the command line; this is necessary to save the shared download</td>
</tr>
</tbody>
</table>
path to the INI file for later use; when running an administrative installation (-a), this will also set AdminPackage=true in the INI file saved to the -aip path.

- **s**
  **SharedDownloadDirPath=** \<path to shared download folder> // "-s:<path> : Shared base download path; path to the folder that the shared prerequisite files are stored in.

- **qp**
  **PrereqUIMode=** Silent|Basic|Reduced|Full // "-qp:[Silent|Basic|Reduced|Full] : UI modes for prerequisite installations: Silent|Basic|Reduced|Full; if the parameter is specified but a mode is not, the default is silent; if the parameter is not specified, the default is Basic".

- **qa**
  **AppUIMode=** Silent|Basic|Reduced|Full // "-qa:[Silent|Basic|Reduced|Full] : UI mode for application installation: Silent|Basic|Reduced|Full; if the parameter is specified but a mode is not, the default is silent; if the parameter is not specified, the default is Full".

**Note:** The updated SPA installation will not change the default selected server or the list of available servers if the user has modified the list of available servers via the “Point to different database dialog….” If they have installed SPA, but they have not modified their list of available servers, then the installation can update their default server and list of available servers.

**INI File Settings for the bootstrapper (setup.exe)**

The bootstrapper will also read settings from an INI file named SETUP.ini if it exists in the same folder as the EXE. Any settings in setup.ini can be overridden on the command line by using the command line parameters documented in the second column above.

**APPENDIX B – UPGRADES**

If an installation is an MSI file and it is a minor upgrade to a version users already have installed, they must specify certain command line parameters if they are running the MSI file directly. If an MSI is a major upgrade, however, then they can run the MSI directly without any command line parameters. This is not an issue when running setup.exe or when running the installations from the Web or DVD multi-product installers.

The command line for installing a minor upgrade is as follows:

`msiexec.exe /i "<path to MSI file>" REINSTALL="ALL" REINSTALLMODE="voums"

Example:

`msiexec.exe /i "D:\SPRE\SPRApplication\PPC SMART Practice Aids - Risk Assessment.msi" REINSTALL="ALL" REINSTALLMODE="voums"`
Tip: A shortcut can be created with this command line so you don’t have to repeatedly enter this command line to upgrade multiple machines. This is also helpful when instructing your end user to install the application since all they need to do is run the shortcut.

Unfortunately, there is no hard rule about when an installation will be a minor upgrade vs. a major upgrade. If a user runs the MSI directly without the command line options above and it is a minor upgrade, they will get the following error message:

This same error message will be displayed if the version they are trying to install is older than the version already installed if the differences between the two versions are considered minor by Windows Installer definition.

Conveying minor upgrades to the user can be confusing because they apply only to certain versions of the application. If a user has an even older version, then the installation will be a major upgrade. In other words, the installation will function as a minor or major upgrade, depending on the version of the software that is currently installed on the end user’s machine.

APPENDIX C – CONFIGURING WINDOWS FIREWALL

To configure Windows Firewall for use with the SMART Practice Aids database:

1. In the Windows Control Panel, double-click Windows Firewall.
2. On the Windows Firewall dialog screen, click the Exception tab.
   a. To add an exception for the SQL Browser service:
      i. Click Add Program.
      ii. Browse to the SQL Server instance for SMART Practice Aids* \(\text{typically C:\Program Files\Microsoft SQL Server\MSSQL12.TOCTTARGPPC05\MSSQL\Binn}\).

        Important: It is possible for more than one SQL Server instance to be installed on the same machine. Each SQL Server instance is installed in a different directory—typically C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Binn, where MSSQL.1 represents the first SQL Server instance. If more than one instance exists, refer to the steps below to determine which instance to select.
iii. Select `sqlservr.exe`.
iv. Click OK to accept your changes.

b. To add an exception for the SQL Browser service:
   i. From the Exception tab, click AddPort to display the Add a Port dialog screen.
   ii. In the Name field, type a meaningful name for the exception, such as SQL Server Browser (UDP 1434).
   iii. Type 1434 in the Port Number field.
   iv. Select UDP.
   v. Click OK to accept your changes.
   vi. Click OK to allow traffic to the SMART Practice Aids SQL Server instance to pass through the Windows Firewall.

*To identify which SQL Server instance is being used for SMART Practice Aids:*

1. Select Start>All Programs>Microsoft SQL Server 2014 SP3>Configuration Tools>SQL Server Configuration Manager.
2. In the Configuration Manager, select SQL Server 2014 SP3 Services.
3. In the right pane, right-click on SQL Server (TOCTTARGPPC05) and choose Properties.
4. Click the Advanced tab and use the Instance ID or Install Path information to determine the MSSQL instance in use for SMART Practice Aids.

**APPENDIX D – STARTING THE PPC WEB INSTALLATION WIZARD**

2. From the Search tab on Checkpoint, select PPC Install/Update under Go to in the left frame:
3. Or you can select **PPC Install/Update** from the left frame of the Tools tab:

4. Click the **PPC Install/Update** link to display the *Installation Instructions* dialog screen:
5. Click **Product Installer**.


**Note**: You may need to add `ppc.thomsonreuters.com.edgesuite.net` as a trusted site.

7. Verify that **Thomson Reuters (Tax & Accounting) Services Inc.** appears next to **Publisher** on the *Internet Explorer - Security Warning* dialog screen and click **Run**.
APPENDIX E – DEPLOYING THE APPLICATION TO THE END USER

Now that you have set up your administrative installation points using the following options, you are ready to deploy the application to the end user machines.

- Without Setting Up a Local Database
- Including Setting Up a Local Database

Important: As the network administrator, you must ensure that all prerequisites are installed on the end user machine! All prerequisites are available on the DVD and in the download location when doing a Web installation and choosing the “Administrative Install” or “Download Only” options.

Note: The bootstrapper (setup.exe) will automatically install all prerequisites. (At this time, you cannot use the bootstrapper to selectively install prerequisites.)

In either of the scenarios below, you will have the option to push the installation out by using Active Directory/Group Policy, SMS, batch scripting, etc., or provide instructions to your end users to run or pull the installation themselves. The option you use to deploy SMART Practice Aids will depend on your environment and the prerequisites that need to be installed. Prerequisites need to be installed if the application is installed for the first time or the prerequisites have been added or updated.

Option 1: Use a start-up or logon script that can be delivered through an Active Directory group policy OR other deployment tools such as Microsoft System Center: This option will typically be used when prerequisites need to be installed on the end user’s PC.

- Installs all pre-requisites as well as the application.
- Can be installed from either a 64-bit or 32-bit deployment server.
- Once configured, the script executes when the machine is started or at user logon to install the pre-requisites as well as the application.
- Using a logon script requires users to have admin rights to their local machines.

Tip: A sample script is available on the support site.

Option 2: Install only the application MSI file through an Active Directory group policy: This option can be used when all prerequisites are already installed on the end-user’s PC and only the application needs to be installed. If you are deploying the application without setting up a local database you may also use this option if Windows Installer 3.1 (or greater) and .NET 4.0 (OR greater) are already installed on the end-user’s PC

- Installs only the application (assumption is all pre-requisites are installed).
- Can be configured to execute at user logon or re-boot.
- Does not require users to have admin rights to their local machines.

Option 3: You can instruct your end users to install directly from the administrative installation point (AIP).

- Installs all pre-requisites as well as the application.
- Using a logon script requires users to have admin rights to their local machines.

Instructions

1. Browse to the network administrative install point
a. Run the bootstrapper (setup.exe) directly if available (Internal Control and Field Work do not have bootstrappers)
b. If a bootstrapper (setup.exe) is not available double-click the MSI files to run the installation

2. Click Next on the Install Shield Wizard Welcome screen.

3. Accept the license agreement and click Next.

4. Click Next on the Access Code screen. The access code will be pre-populated when running from an administrative installation point.

5. On the Setup Type screen, leave the default value Complete and click Next.

6. Click Next on the Destination Folder screen.

7. Click Install on the Ready to Install the Program screen.

8. Click Finish on the Install Shield Wizard Completed screen.

Tip: If you would like your users to run the installation without any user interaction, you can create a shortcut with the following command line parameters. When your end users launch the installation from the shortcut, they will see the progress of the installation, but they will not have to respond to anything.

- Bootstrapper (setup.exe) Sample Command Line:
  "<path to AIP folder>\setup.exe" /accept /qp:b /qa:b
- MSI Sample Command Line:
  msiexec /i "<path to AIP folder>\SPRApplication\PPC SMART Practice Aids - Risk Assessment.msi" /qb

Note: If the application is already installed when running the MSI file directly, you may receive an error message about another version of the product already being installed. Appendix B – Upgrades has more detailed information about installing the application when this occurs.

When installing updates to the client workstation, either:

- Create a new administrative installation point for the product updates. (You do not have to uninstall the product on the client workstation.) RECOMMENDED: Mark the updates as upgrades of existing deployments in the Active Directory Group Policy settings.

  OR -

- Use an updated administrative installation point on a network share. (Product upgrades may require access to the original product installation source. Therefore, if you have updated the original administrative installation point, you may first need to uninstall the product on the client workstation before deploying.)

APPENDIX G – SMART PRACTICE AIDS DATABASES

SMART Practice Aids uses multiple databases, but for simplicity, we often refer to them as one database.

ETLSPA – This is the primary database that stores all of the engagement data except external documents.
SpaExDoc – This database stores the external documents that are added to Field Work-enabled engagements. With this database, which is always created with the ETLSPA database, you can quickly add the Field Work module to SMART Practice Aids without any additional database setup.

APPENDIX H – RESOURCES

- Support