Deltek Open Plan® 8.5

Installation Guide

December 1, 2020

Contents

Overview

Open Plan is an enterprise-class project management software solution that offers the power and flexibility to complete medium to large or multiple projects on time and on budget. With multi-project analysis, critical path planning and resource management, Deltek Open Plan offers the power and flexibility to serve the differing needs of business, resource and project managers. With Deltek Open Plan, you can improve project success, allocate resources across projects more effectively and share project information across the enterprise.

This document is meant to serve as a guideline for hardware and software requirements and provide your firm's IT department with information about the technical deployment architecture.

It is important to note that the choices of hardware, relational database software, and operating systems in these examples represent guidelines, are subject to change, and do not replace a needs analysis and site survey with a Deltek Technical Consultant. Contact a Deltek Technical Systems Engineer for suitability of legacy equipment.

Consulting

Deltek, Inc. can provide onsite consulting and training services as well as phone support on a contract or time-and-materials basis.

Contact Information

Please contact a Deltek Technical Systems Engineer techse@deltek.com for more information.

Additional Notes

Legal Disclaimer: The recommendations in this document are intended to convey general information and should not be relied upon as a substitute for a professional consultation with Deltek. All the information in this document is provided "as is" and without warranties of any kind, either expressed or implied.

Note: The evolution of technology dictates the way IT professionals plan their network hardware and software environments. While this document does not account for all possible options in the deployment of Deltek software, it does provide specific recommendations based on testing metrics and years of experience working directly with Deltek customers. Prior to making assumptions on how specific 3rd party technologies will perform with Deltek applications, Deltek recommends contacting your sales representative to arrange a discussion with a Deltek Technical Systems Engineer who can help you plan for a cost-effective and optimally performing application environment.

Adding Custom Notes to This Guide

If you would like to add custom notes to this guide that are specific to your company, Adobe® Reader® X provides this ability. If you do not already use Adobe Reader X, you can download it here free from Adobe.

To add a custom note using Adobe Reader X, complete the following steps:

1. On the Reader toolbar, click **Comment** at the far right.

2. In the **Annotations** pane that displays, click 💬 **Sticky Note**. The cursor changes to match the button.

3. Position the cursor at the location in the guide where you want the note to appear, and click. A note icon is inserted at the location and a text box pops up.

4. Enter your information in the text box.

5. Continue adding notes as needed.

6. Save the document.

> **Note:** Deltek recommends that you save the document to a slightly different filename so as to keep the original from being overwritten.

When reading the document, cursor over a note icon to see the information. Double-click a note icon to edit the information.

Downloading Deltek Products using Deltek Software Manager

You can use Deltek Software Manager (DSM) to download complete Deltek products, hot fixes, cumulative updates, and sub-releases. You can access DSM through the Deltek Support Center or use Deltek Software Manager Lite to download Deltek products.

Accessing DSM from within the Deltek Support Center

To access DSM from within the Deltek Support Center:

1. In your Web browser, go to https://deltek.custhelp.com.

2. Enter your Deltek Support Center **Username** and **Password**, and click **Login.**

3. When the Deltek Support Center page displays, click **Product Downloads**.

4. On the Deltek Software Manager screen, click **Launch Deltek Software Manager**.

5. Click **Settings** at the top right of the dialog box to use the Settings dialog box to specify the folder where you want to download Deltek products, and click **OK**.

> **Note:** When you log on for the first time, DSM asks you to select a default folder where Deltek products are to be downloaded.
>
> You can change this folder anytime in the Settings dialog box.

6. In the left pane, expand the Deltek product that you want to download, if it is not already expanded.

7. Select the product type that you want to download.

   Options include:

   - **Complete**
   - **Cumulative Updates**
   - **HotFixes**
   - **Sub-Release**

8. In the table, select the check box that corresponds to the Deltek product that you want to download.

   The right pane displays a message stating that the product has been added to the download queue.

> **Note:** To view the items in the download queue, click **View Download Queue** at the bottom of the left pane.

9. Click **Download** at the bottom of the left pane to download the product to the folder that you selected.

Accessing DSM Lite

To access Deltek Software Manager Lite:

1. In your Web browser, go to https://dsm.deltek.com/DeltekSoftwareManagerLite.
2. Enter your Deltek Support Center **Username** and **Password**, and click **Logon.**
3. When the Deltek Software Manager Lite page displays, select a product from the drop-down list.
4. Click the product type that you want to download.

> **Note:** The download behavior and download folder may differ depending on the browser and browser settings that you are using.

DSM Documentation and Troubleshooting

- To view the online help for Deltek Software Manager, click here.
- To view a tutorial on how to use Deltek Software Manager, click here.
- To view more information on troubleshooting Deltek Software Manager, click here.

> **Note:** When you click a link, you will be asked to log into DSM if you aren't already logged in.

Pre and Post-Installation Checklists

Preinstallation Checklist

Steps		Related Topics
1.	Verify that you have the supported operating system and database platforms installed for the database and client tiers.	▪ System Requirements
2.	Verify that you have at least 150MB of disk space available for this installation.	
3.	Verify that the user account performing the installation is a member of the local Windows System Administrators group.	
4.	Open Plan is installed and configured to use a Microsoft Access database by default and does not require that you have an MS SQL Server or Oracle database in order to use the software. If you plan to use an Oracle or MS SQL Server database, see Appendix B and the instructions in *Set Up a Database*.	▪ Appendix B: Open Plan Databases ▪ Set Up a Database

Post-Installation Checklist

Steps		Related Topics
1.	Verify that users have permissions for the Open Plan folders.	▪ Give Users the Appropriate Open Plan Folder Permissions
2.	Verify that users and groups have been added to the Deltek EPM Security Administrator.	▪ Launch the Deltek EPM Security Administrator

3.	Open Plan is pre-configured to use an included Access database by default.
	
	If you wish to use Open Plan with a SQL Server or Oracle database, follow these steps to create and configure the database for use with Open Plan.
	
	    1. Set up the database.
	    2. Set up a data source for the database.
	    3. Load the default data for the database.
		▪ Set Up a Database
		
		▪ Set Up a Data Source for a New Database
		
		▪ Load Default Data

Before You Begin Deployment

Before you begin deployment, it is important to understand the following:

- Logical Tiers
- Installation / Deployment Models
- Hardware and Software Requirements

Logical Tiers Overview

Open Plan uses a two-tier architecture. The logical tiers are as follows:

- **Client / Application Tier** — This tier performs Open Plan's functional process logic and provides the user interface layer. This tier can be a workstation or a Citrix/Terminal Server.
- **Database Tier** — This tier consists of a database server where the Open Plan data is stored and retrieved.

Installation/Deployment Models

Stand-Alone Deployment

The stand-alone model is designed for a single-user setup. The client, application, and database tiers all reside on the same machine.

Client/Server Deployment

In the client/server model, you install the client / application tier on workstations that directly connect to a database server. However, when a client workstation that is connected to the database goes through a router or a firewall, this type of setup often yields poor performance. This model can be deployed in a Citrix / Terminal Server environment to improve performance in that scenario.
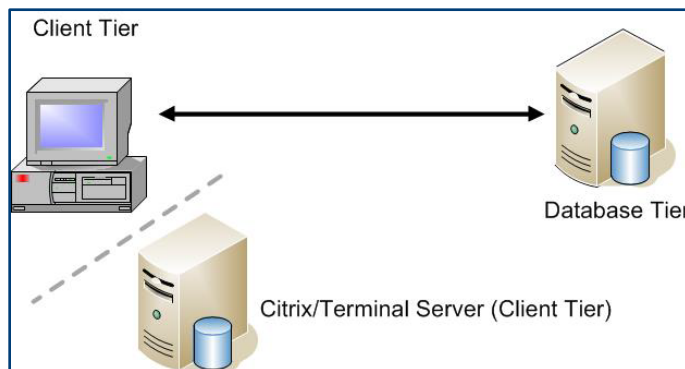
In addition, the Multi-User (Server) install can be performed, where the application files reside on a network file share and the Workstation installation is performed on each workstation.
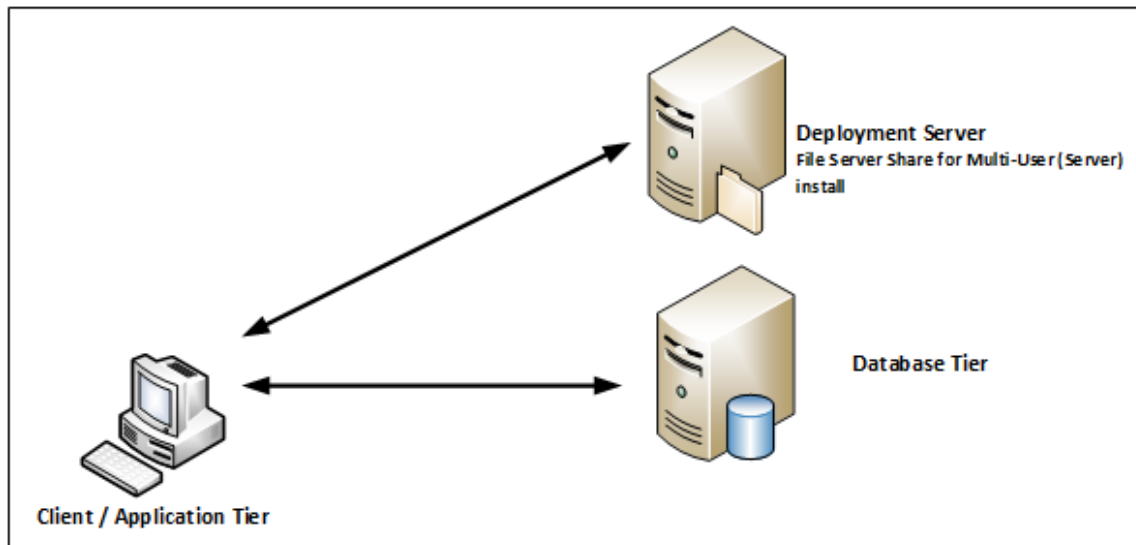
Unsupported Scenarios

The Open Plan installation does not support installing any Open Plan tiers on any of the following servers:

- Domain Controller
- Microsoft Exchange Server
- Proxy, Firewall, or ISA Server
- Microsoft SharePoint Portal Server
- Installing any Open Plan Tier on Small Business/Essential Business Server

Using these services / servers can cause significant issues in the performance, reliability, and functionality of the Open Plan application and the other applications on your network.

System Requirements

Your organization has made a substantial commitment to ensure it has a fully integrated earned value management (EVM) solution. To support that commitment, Deltek recommends that you carefully consider the hardware requirements necessary to run Open Plan properly.

Platform Virtualization

Platform Virtualization is a technology that allows multiple operating systems and platforms to run simultaneously as separate virtual machines on a single set of server hardware.

Deltek recognizes the use of virtual and cloud environments by our customers. Cloud environments consist of hosted resources that typically include virtual environments made available over the internet, such as "Amazon Web Services". Virtual environment software, such as VMware®, resides in the hardware layer underneath the operating system and is used to partition a single server or cloud environment into a multiple server/multiple operating system environment. Deltek's product development makes extensive use of cloud and virtualized environments.

Support of Virtual Environments

Deltek supports customers who run its products on any of the supported native operating systems (whereby "native operating systems" means any operating system specified in the Deltek Product Support Compatibility Matrix available on the Deltek Customer Care Connect site), irrespective of whether or not they are running in a cloud and/or a virtualized environment. However, Deltek does not have the capacity to rigorously test its products inside the many available cloud and virtualized environments.

Each cloud and virtual environment software supports a set of operating systems and hardware certified by the software operating system and cloud/hardware vendors. The customer and virtualization vendor are responsible for any interactions and/or issues that arise at the hardware or operating system layer as a result of their use of a cloud-based environment and/or virtualization software. Virtualization software is supplied in both production and non-production versions. Deltek will only support the use of its products inside virtualization products that are recommended by the virtualization vendors for enterprise production use, and as further described below.

Troubleshooting and Fixes

The following conditions apply to those Deltek customers who experience issues with the Deltek software while using such products inside cloud and/or virtual environments:

- Deltek customers will not be required to recreate and troubleshoot every issue in a non-cloud or nonvirtualized environment.

- Deltek may request its customers to diagnose issues in a native certified operating system environment without the use of virtualization and/or within a non-cloud based environment. Deltek will only make this request when there is reason to believe that the cloud or virtual environment is a contributing factor to the issue.

- Software problems will only be fixed if they can be replicated in a dedicated local hardware and operating system environment without the use of virtualization.

Deltek Customer Support is unable to accept virtual images from customers in order to evaluate problems in deployments using virtualization.

Performance

The use of cloud-based environment and/or virtualization software adds software overhead which may impact performance or scalability of all Deltek software products. The customer should not interpret any Deltek performance recommendations for the Deltek software on a dedicated hardware platform as directly applicable to one or more cloud or virtual environments running on the same or similar hardware. The customer should consult with its cloud and/or virtualization software vendor with respect to virtual system performance and tuning.

Recommendation

Deltek will continue to develop knowledge about the use of virtualization software solutions as these solutions continue to mature and extend into our user communities' information technology infrastructure. Deltek strongly recommends that its customers deploy the Deltek software in a nonproduction environment when initially utilizing virtualization technology as a first step. By doing so, the customer will allow for resolution of any issues and customer-specific performance data to be developed for the virtual environment solution, without having an adverse impact on production operations. Please contact Deltek Customer Support for additional information on use of the Deltek software in a virtualized environment.

Display Settings

Deltek recommends a display resolution of 1920 x 1080 with a minimum resolution of 800 x 600.

Using Open Plan with Citrix or Remote Desktop

If you are integrating Open Plan with PM Compass, the PM Compass Smart Client application uses the Microsoft .NET Framework ClickOnce deployment technology which makes it easy for administrators to deliver Windows-based applications to end-users by sending them a URL. However, in some cases, the ClickOnce deployment behavior may not be supported.

Hardware Sizing Considerations

There are several factors that go into sizing an appropriate server infrastructure. The number of concurrent users accessing the system at any given time, the amount of data being analyzed, and growth expectations all have an impact on the initial sizing plans. The hardware profiles provided in the previous sections are intended as a starting point for deployment. It is expected that our clients will use the product in many different ways, plan for future release, and client customizations will all impact the growth and scaling of the overall solution. Further in-depth discussion of the business needs of the solution during implementations of application will provide final guidance on hardware requirements.

Memory Requirements for Typical/Average Use

Below are details on the memory footprint of the product. This can be helpful when sizing a client tier that runs in a virtual environment, Citrix, or Terminal Server.

Tier	Memory*
Client Tier	▪ 50 MB for an Open Plan project with about 2,000 activities, 2,000 relationships and 4,000 resource assignments (plus memory required by the database driver being used).

Tier	Memory*
Application Tier (Citrix/Terminal Server only)	▪ Please see your vendor for recommendations.
Database Tier	▪ Database instance memory should be 10% - 15% of the database size. For example, if database size is expected to be 500GB then allocate 50GB - 75GB memory.

* Per concurrent client instance and in addition to any memory needed for the operating system and other applications that may run in parallel with this product.

Definition of Typical/Average Use

A user working with moderate-sized projects (2,000 – 5,000 activities), one project at a time, in either exclusive or shared mode, and using spreadsheet or bar chart views of moderate complexity.

If the user is working with views in Open Plan that put a heavy demand on memory (for example, a bar chart view with many types of bars defined, a large number of "normal" calculated fields, or a smaller number of calculated fields that are calculation-intensive), larger amounts of memory will be used.

In addition, for customers doing either Microsoft Project or Primavera integrations, Open Plan requires more memory.

> **Note:** With the 32-bit version of Open Plan, a maximum of 3-4 GB may be used by the application due to operating system constraints. The 64-bit version of Open Plan can use up to 192 GB for the Professional, Enterprise, and Ultimate versions of Windows 7.

Hardware Requirements

The number of people using Open Plan, the PM Compass processes they are using, and the size of your database all have an effect on the hardware and software requirements for your servers.

> **Note:** Specific server hardware configurations may have an impact on your overall Deltek product licensing requirements. Deltek recommends that you confirm with a Deltek Technical Sales Engineer that the server hardware you plan to deploy is in line with your Deltek license agreement and that you learn how overall server infrastructure expansion in the future may affect your Deltek licensing.

Standalone Deployment

The following table lists the recommended minimum hardware and software requirements for a deployment of Deltek Open Plan in standalone, workstation environment.

Tier	Hardware/Software Required	Determining Factors
Client Database Tier	▪ Intel 2.0 GHz or higher ▪ 2 GB RAM	Usage Integration Requirements Database Size

Tier	Hardware/Software Required	Determining Factors
	▪ 10-20GB of available disk space for application, plus additional space for each project	Database Growth

Client/Server and Citrix/Terminal Server Deployment

In the client/server model, you install the client and application tiers on workstations (or Citrix / Terminal Server) that directly connect to a database server.

The following tables list the recommended minimum hardware and software requirements for a deployment of Deltek Open Plan in a client / server environment.

Small Client/Server Installation: 1 - 25 Concurrent Users

Tier	Hardware/Software Required	Determining Factors
Database	**Server Class Machine:** ▪ Logical Cores 2.0+ GHz or faster CPU ▪ 8+ GB Physical Memory ▪ High performance disk volume – SSD preferred	▪ Database Size ▪ Database Growth ▪ Usage
Application Server (Citrix/Terminal Server only)	**Server Class Machine:** ▪ 4 - 8 x Logical Cores 2.5 GHz or faster CPU ▪ 8+ GB Physical Memory ▪ 125 MB of available disc space for application, plus additional space for each project	▪ Total Users ▪ Power Users ▪ User Location
Client	**Desktop Class Machine:** ▪ 1.8 GHz or faster CPU ▪ Recommend 4 GB Physical memory ▪ 530 MB of available disk space for application, plus additional space for each project ▪ Monitor resolution must be at least 1024×768	▪ Applications running in client machine

Medium Client/Server Installation: 25 – 50 Concurrent Users

Tier	Hardware Required	Determining Factors
Database	**Server Class Machine:**	▪ Database Size

Tier	Hardware Required	Determining Factors
	▪ 8 x Logical Cores 2.8 GHz or faster CPU ▪ 8+ GB Physical memory ▪ 100 GB Hard drive ▪ 100 MB Network card	▪ Database Growth
Application Server (Citrix/Terminal Server only)	**Server Class Machine:** ▪ 8 x Logical Cores 2.5 GHz or faster CPU ▪ 12 GB Physical memory ▪ 200 GB Hard drive space ▪ 125 MB of available disc space for application, plus additional space for each project	▪ Total Users ▪ Power Users ▪ User Location
Client	▪ 1.8 GHz or faster CPU ▪ Recommend 4 GB Physical memory ▪ 530 MB of available disk space for application, plus additional space for each project ▪ Monitor resolution must be at least 1024×768	▪ Applications running in client machine

Large Client/Server Installation: 50+ Concurrent Users

Tier	Hardware Required	Determining Factors
Database	**Server Class Machine:** ▪ 8 x Logical Cores 2.8 GHz or faster CPU ▪ 8+ GB Physical memory ▪ 100 GB Hard drive ▪ High performance disk volume – SSD preferred ▪ 100 MB Network card	▪ Database Size ▪ Database Growth
Application Server (Citrix/Terminal Server only)	**Server Class Machine:** ▪ 8 x Logical Cores 2.5 GHz or faster CPU ▪ 16 GB Physical Memory ▪ 200 GB Hard drive space ▪ 125 MB of available disc space for application, plus additional space for each project	▪ Total Users ▪ Power Users ▪ User Location

Tier	Hardware Required	Determining Factors
Client	**Desktop Class Machine** ▪ 1.8 GHz or faster CPU ▪ Recommend 4 GB Physical memory ▪ 530 MB of available disk space for application, plus additional space for each project ▪ Monitor resolution must be at least 1024×768	▪ Applications running in client machine

Software Requirements

The supported minimum software requirements for a complete installation of Deltek Open Plan are listed below.

> **Attention:** For a complete list of the recommended minimum software requirements, see the *Deltek Product Support Compatibility Matrix* document that you can download from the Deltek Customer Care Connect site.

Supported Deployment Technology

> **Note:** Supported versions are the current actively tested versions of technologies used to deploy Open Plan. Except for the Deltek Integrated Products, these technologies are not directly supported by Deltek. Changes to these technologies occur at the discretion of the individual technology vendors.

Supported Deployment Technology	
Operating System	▪ Windows Server 2012 R2 ▪ Windows Server 2016 ▪ Windows Server 2019 ▪ Windows 8.1 ▪ Windows 10
Citrix	▪ XenApp 7.* (Windows Server 2012 R2) ▪ XenApp 7.* (Windows Server 2016) ▪ Citrix Virtual Apps and Desktop 7 (Windows Server 2019)
VMWare Horizon	▪ VMWare Horizon 7
Database Platform	**Microsoft SQL Server**

Supported Deployment Technology	
	▪ SQL Server 2016 ▪ SQL Server 2017 (also supported on Linux and Unix) ▪ SQL Server 2019 (also supported on Linux and Unix) ▪ SQL Server Express 2016 ▪ SQL Server Express 2017 ▪ SQL Server Express 2019 **Oracle** ▪ Oracle 12.2 ▪ Oracle 18.3 ▪ Oracle 19.3 Oracle is supported on Linux, Unix, and Exadata **Microsoft Access** ▪ Microsoft Access 2013 ▪ Microsoft Access 2016 ▪ Microsoft Access 2019
Database Driver	Open Plan supports Access, Oracle, and SQL Server databases through an OLEDB 2.1 compliant provider. The data source providers to use for each database type are listed below. ▪ Oracle Provider for OLE DB ▪ MS SQL Server 2012 Native Client, version 11.4.7001.0 or higher ▪ MS OLE DB Driver for SQL Server, version 18.2.2.0 or higher ▪ Microsoft OLE DB Provider for Jet ▪ Microsoft Office 12.0 Access Database Engine OLEDB Provider ▪ Microsoft Office 15.0 Access Database Engine OLEDB Provider ▪ Microsoft Office 16.0 Access Database Engine OLEDB Provider **Note:** The 64-bit version of Open Plan requires the 64-bit version of the Microsoft Access Database Engine. The 64-bit Microsoft Access Database Engine can be obtained from the Microsoft Download Center at the following location: https://www.microsoft.com/en-us/download/details.aspx?id=13255.
Scheduling Tools	**Microsoft Project Standard**

Supported Deployment Technology	
	▪ Microsoft Project Standard 2013 SP1 (Nov 10, 2015 update)
	▪ Microsoft Project Standard 2016
	▪ Microsoft Project Standard 2019
	Microsoft Project Professional
	▪ Microsoft Project Professional 2013 SP1 (Nov 10, 2015 update)
	▪ Microsoft Project Professional 2016
	▪ Microsoft Project Professional 2019
	Microsoft Project Server
	▪ Microsoft Project Server 2013 SP1 (with update applied from KB 3115456)
	▪ Microsoft Project Server 2016 SP1 (with update applied from KB 4461598)
	▪ Microsoft Project Server 2019
	Oracle Primavera
	▪ Primavera P6 8.4
	▪ Primavera P6 17.12
	▪ Primavera P6 18.8
	▪ Primavera P6 19.2
	Kidasa
	▪ Kidasa Milestones Professional 2017
	▪ Kidasa Milestones Professional 2019
	▪ Kidasa Milestones Professional 2021
Deltek Integrated Products	The versions listed below are the minimum supported versions. Subsequent cumulative update (CU) releases within the listed major/minor release will be supported unless otherwise noted in the *Technology No Longer Supported with this Release* table. Subsequent major/minor releases are not supported. **Deltek Cobra** ▪ Cobra 8.2 ▪ Cobra 8.3 ▪ Cobra 8.4 **Deltek Acumen** ▪ Acumen 8.5 ▪ Acumen 8.6 ▪ Acumen 8.7 **Deltek PM Compass**

Supported Deployment Technology	
	▪ PM Compass 8.1
	Note: If you are integrating with PM Compass, you must use the 32-bit version of Open Plan.
	Deltek wInsight Analytics
	▪ wInsight Analytics 8.2
	▪ wInsight Analytics 8.3
Embedded Technology	▪ Visual C++ 2013 Redistributable Package (x86)
	▪ Visual C++ 2017 Redistributable Package (x86)
.NET Framework	▪ Microsoft .NET Framework 4.5.2
	▪ Microsoft .NET Framework 4.6
	▪ Microsoft .NET Framework 4.6.1
	▪ Microsoft .NET Framework 4.6.2
	▪ Microsoft .NET Framework 4.7
	▪ Microsoft .NET Framework 4.7.1
	▪ Microsoft .NET Framework 4.7.2
	▪ Microsoft .NET Framework 4.8

Compatible Deployment Technology

Note: Compatible versions are the recent previously supported and tested technologies used to deploy Open Plan. These are not actively being tested but are believed to be compatible with Open Plan. Deltek does not recommend these technologies for new deployments but will make its best effort to answer questions concerning these technologies. These technologies may not be available for troubleshooting at Deltek.

Compatible Deployment Technology	
Database Platform	**Microsoft SQL Server**
	▪ SQL Server 2014
	▪ SQL Server Express 2014
	Oracle
	▪ Oracle 11.2
	Microsoft Access
	▪ MS Access 2010
Citrix	▪ XenApp 7.* (Windows Server 2012)

Compatible Deployment Technology	
Scheduling Tool	**Oracle Primavera** ▪ P6 15.2 ▪ P6 16.2 **Kidasa** ▪ Kidasa Milestones Professional 2015

Open Source Software Included with Open Plan

Open Plan includes the following open source software:

Software	Company
D3DES	Public domain implementation of the Triple DES encryption algorithm from the book "Applied Cryptography" http://www.schneier.com/book-applied-source.html
Natural Sort	Freeware sort algorithm. http://sourcefrog.net/projects/natsort/
Pcrypt	Public domain Password encryption based on D3DES
PJNSMTP	Freeware SMTP protocol library

Upgrade from Earlier Versions of Open Plan

When upgrading from an earlier version of Open Plan, you must install Open Plan 8.5 in a new folder rather than attempting to overwrite/upgrade an existing Open Plan installation. Open Plan supports concurrent installations with previous versions of Open Plan, provided that:

- The user has Administrator rights (This is necessary to enable Open Plan to update OLE Automation Server registration when different versions are used.)
- The two versions do not share the same database
- The two versions are installed to different folders

It is necessary to perform a new Workstation installation for users that access Open Plan from a shared server installation. The Workstation setup application is available in the Workstation Setup folder of the server installation folder.

Upgrade the Database

Upgrading from an earlier version of Open Plan requires upgrading the database. Prior to upgrading, Deltek recommends backing up the Open Plan database. After you upgrade, you can no longer use the database with a prior version of the application.

> **Note:** Before running the upgrade scripts for Oracle or SQL Server, your Database Administrator must verify if the Open Plan database is in Unicode. If so, the appropriate setting in the script to upgrade the database in Unicode must be set.
>
> If you are installing to a database that already contains Deltek Cobra or Deltek PM Compass, you must select the same Unicode option as the existing applications.
>
> After the upgrade, review Run Oracle Scripts for PM Compass Integration to see if it is necessary to run additional scripts to support integration with PM Compass.

If you are upgrading …	Use this upgrade script
3.5 to 8.0	- For SQL, run OPP80_Upgrade_SqlServer.sql - For Oracle, run OPP80_Upgrade_Oracle.sql
8.0 to 8.1	- For SQL, run OPP81_Upgrade_SqlServer.sql - For Oracle, run OPP81_Upgrade_Oracle.sql
8.1 to 8.2	- For SQL, run OPP82_Upgrade_SqlServer.sql - For Oracle, run OPP82_Upgrade_Oracle.sql
8.2 to 8.3	No upgrade needed. 8.2 and 8.3 can use the same database
8.3 to 8.4	- For SQL, run OPP84_Upgrade_SqlServer.sql - For Oracle, run OPP84_Upgrade_Oracle.sql
8.4 to 8.5	- For SQL, run OPP85_Upgrade_SqlServer.sql - For Oracle, run OPP85_Upgrade_Oracle.sql

> **Note:** The update scripts used in this procedure can be found in the Open Plan installation folder.
>
> - **MS SQL** — You can find the scripts in the C:\Program Files (x86)\Deltek\Open Plan Professional 8.5\SQL\SQL Server folder.
>
> - **Oracle** — You can find the scripts in the C:\Program Files (x86)\Deltek\Open Plan Professional 8.5\SQL\Oracle folder.
>
> - **MS Access** — Open Plan does not support upgrading the Microsoft Access database used by a previous version of Open Plan. To transfer data from a previous version of Open Plan to the new version of Open Plan, perform a backup in the previous version of Open Plan and then perform a restore in the new version of Open Plan.

Install a Single-User Version of Open Plan

This section describes how to install a 32-bit or 64-bit single-user version of Open Plan on either a stand-alone PC or on a network drive.

> **Note:** If you are integrating with PM Compass, you must install the 32-bit version of Open Plan.

To install a single-user version of Open Plan, complete the following steps:

1. Download the Open Plan Professional 8.5 software using the instructions in the Downloading Deltek Products using Deltek Software Manager section.

2. Go to the location where you saved the Open Plan installer.

3. Double click the appropriate installation package version to launch the installation wizard.

   - **32-bit version of Open Plan** — The installation package for the 32-bit version of Open Plan is **DeltekOpenPlanProfessional85_x86.exe**

   - **64-bit version of Open Plan** — The installation package for the 64-bit version of Open Plan is **DeltekOpenPlanProfessional85_x64.exe**

4. On the **Welcome to the Open Plan Professional 8.5 Setup Wizard** page, click **Next**.

5. On the **Customer Information** page, enter your user information and click **Next**.

   > **Note:** For your Open Plan serial number and license key, please contact your Open Plan administrator.

6. On the **Change current destination folder** page, select a destination for Open Plan by clicking the browse button, and click **Next**.

7. On the **Choose Setup Type** page, select one of the following installation options:

   - **Complete** – Installs all Open Plan's features.

   - **Custom** – Allows you to select or clear the individual Open Plan features.

   - **Multi-User (Server)** – Installs Open Plan to a network drive for shared use by multiple workstations.

   > **Note:** Multi-User (Server) installation is covered in detail in the section entitled Perform a Multi-User Installation of Open Plan.
   >
   > If you do not choose to install a particular feature at this time, you can return to the installation wizard and add the feature later.

8. On the **Ready to Install** page, click **Install**. The system displays the installation's progress.

9. When the installation process is completed, click **Finish** on the **Completing the Open Plan Professional 8.5 Setup Wizard** page.

The next step is to Start Open Plan for the First Time.

Perform a Multi-User Installation of Open Plan

Creating a multi-user installation of Open Plan is a two-step procedure:

- Performing a server installation
- Performing a workstation installation for each licensed user

Perform a Server Installation

The purpose of the Multi-User (Server) installation is to allow multiple users to run the application from a shared network location. After performing the Server installation, each user must perform a Workstation installation in order to run the application from the shared network location.

During the Multi-User (Server) installation, the destination folder path is written into the file Setup.ini located in the Workstation Setup folder.

The destination folder path can be specified as either a UNC based \\server\folder path or a mapped drive:\folder path. Deltek recommends using a UNC-based path when performing a Multi-User (Server) installation. If a mapped drive:\folder path is used, you must ensure that all the user workstations use the same drive:\folder mapping. When performing an installation using a mapped drive, you must ensure that the Windows System account has access to the mapped drive because the Windows Installer uses the Windows System account when performing the installation. The Microsoft-recommended way to map a drive that is available to the Windows System account is to map the drive in an administrator command prompt using the Net Use command:

net use <Drive Letter:> <UNC Path> /user:<User Name>

Microsoft KB article 937624 explains the issue and workaround in more detail:
http://support.microsoft.com/kb/937624

Network Share Location

After the Server installation, and before you perform a Workstation installation, verify that the path in the Setup.ini file points to the correct network share location because the Workstation installation will use this path to create shortcuts and perform application registration on the workstation.

The line in Setup.ini looks like this:

UNC \\Server\Folder path: PROPERTIES=INSTALLDIR="\\<Server>\<Destination Folder> \"

Drive:\Folder path: PROPERTIES=INSTALLDIR="<Drive>:\<Destination Folder> \".

To perform a 32-bit or 64-bit server installation, complete the following steps:

1. Download the Open Plan 8.5 software, using the instructions in the Downloading Deltek Products using Deltek Software Manager section.

2. Go to the location where you saved the Open Plan installer.

3. Double click the appropriate installation package version to launch the installation wizard.

   - **32-bit version of Open Plan** — The installation package for the 32-bit version of Open Plan is **DeltekOpenPlanProfessional85_x86.exe**

   - **64-bit version of Open Plan** — The installation package for the 64-bit version of Open Plan is **DeltekOpenPlanProfessional85_x64.exe**

4. On the **Welcome to the Open Plan Professional 8.5 Setup Wizard** page, click **Next**.

5. On the **Customer Information** page, enter your user information then click **Next**.

> **Note:** For your Open Plan serial number and license key, please contact your Open Plan administrator.

6. On the **Change current destination folder** page, select a destination for Open Plan by clicking the browse button, and click **Next**.

7. On the **Choose Setup Type** page, select **Multi-User (Server)**.

8. On the **Ready to Install** page, click **Install**. The system displays the installation's progress.

9. When the installation process is completed, click **Finish** on the **Completing the Open Plan Professional 8.5Setup Wizard** page.

10. Before you perform a Workstation installation, verify that the path in the Setup.ini file points to the correct network share location because the Workstation installation will use this path to create shortcuts and perform application registration on the workstation.

    The line in Setup.ini looks like this:

    UNC \\Server\Folder path: PROPERTIES=INSTALLDIR="\\<Server>\<Destination Folder> \"

    Drive:\Folder path: PROPERTIES=INSTALLDIR="<Drive>:\<Destination Folder> \".

Perform a Workstation Installation

After the server version of Open Plan has been installed on a network drive, use this procedure to perform multiple workstation installations.

- You can only perform workstation installations from a server installation of Open Plan.
- Although similar to the single-user installation, the workstation installation does not prompt you to enter a serial number and password.
- You need to perform the workstation install on each computer that will be used to run Open Plan.

> **Important**: Before you perform a Workstation installation, confirm that you have verified that the path in the Setup.ini file points to the correct network share location. For more information, see the final step in the Server Installation.

To perform a workstation installation of Open Plan, complete the following steps:

1. Verify that a server installation of Open Plan has already been placed on the network.

2. Using Windows Explorer, locate the Open Plan server installation and navigate to the root folder for the workstation. For example, **C:\Deltek\Open Plan Professional <version>\Workstation Setup**.

3. Double-click **setup.exe** to launch the installation wizard.

4. On the **Welcome to the Open Plan Professional <version> (Workstation) Setup Wizard** page, click **Next**.

5. On the **Choose Setup Type** page, select one of the following:

   - **Administrator** – the procedure installs all of the features of the Standard setup are together with the Security Administrator and the Data Tool.

- **Standard** – the procedure installs the Open Plan Help system, documents, default access, data source, OLE setup, and Web Publisher.

6. On the **Ready to Install** page, click **Install**. The **Installing Open Plan Professional <version> (Workstation)** page shows the installation's progress.

7. When the installation process is completed, click **Finish** on the **Completing the Open Plan Professional <version> (Workstation) Setup Wizard** page.

> **Note:** If you try to launch Open Plan after performing a workstation installation and receive an error saying the Data Sources could not be located, check that the paths to these files are mapped to the correct server. This is done by opening the **Config.dat** file located in the Open Plan root folder.

The next step is to <u>Start Open Plan for the First Time</u>.

Start Open Plan for the First Time

If you used the setup utility to install Open Plan, you can start the application on the Start menu.

> **Note:** To start Open Plan automatically each time you logon to Windows, drag the Open Plan application into the Windows Startup folder. For more information about the Startup program group, see your Windows documentation.

You must log on each time you launch Open Plan. You may log on to Open Plan for the first time as an administrator or a guest.

To start Open Plan, complete the following steps:

1. Click **Start » All Programs » Deltek Open Plan <version> » Deltek Open Plan Professional <version>**.

2. On the Open Plan Login dialog box, log on as SYSADMIN or GUEST with the corresponding password.

   - Administrator:
     - User ID: SYSADMIN
     - Password: PASSWORD
   - Guest:
     - User ID: GUEST
     - Password: <blank>

3. Click **Login**.

If you will be using Open Plan with a Microsoft SQL Server or Oracle database, the next step is to Set Up a Database.

> **Note:** Open Plan is installed with a Microsoft Access database and does not require that you have an MS SQL Server or Oracle database in order to use the software.

Deltek

Set Up a Database

This procedure allows you to set up a database using either Oracle or SQL server. Make sure you have created a database to store the Open Plan tables before performing this procedure.

Deltek recommends, as part of best practice, to install all products in the PPM suite into the same database. The installations apply schema changes (tables, views, stored procedures, and so on) to your existing database in order to support the integration. While it is highly recommended that you install wInsight and Acumen into the same database, the integration between PM Compass, Open Plan, and Cobra requires it.

> **Note:** Open Plan supports Access, Oracle, and SQL Server databases through an OLEDB 2.1 compliant provider. For information, see Appendix B: Open Plan Databases.

To set up the database, complete the following steps:

1. Navigate to your Open Plan installation folder.

2. Expand the contents of your Open Plan installation folder, and click the **SQL** folder.

3. Open the subfolder that matches the type of database you want to set up: **Oracle** or **SqlServer**.

4. Select the scripts to run based on whether you are using Oracle or SQL Server.

   If you are using Oracle, run the following scripts located in the Oracle subfolder:

   - Opp_Tables_Oracle.sql
   - WST_Tables_Oracle.sql

   If using SQL Server, run the following scripts located in the SQL Server subfolder:

   - Opp_Tables_SqlServer.sql
   - WST_Tables_SQLServer.sql

   > **Note:** You must run the scripts in the Open Plan database that you created.
   >
   > The scripts for creating tables on Oracle and SQL Server default to a Unicode installation. You may edit the scripts to create non-unicode tables. See the scripts for instructions on changing the Unicode table options.
   >
   > The Oracle scripts include support for specifying the tablespaces for tables and indexes. See the Oracle scripts for instructions on changing the tablespaces that are used when creating tables and indexes.

Run Oracle Scripts for PM Compass Integration

You must run the scripts listed below the first time you set up Open Plan in the same Oracle schema as PM Compass.

- If your Open Plan installation is in the same schema as your PM Compass installation, you must run **Opp_Oracle_CI_Indexes.sql**.

- If Open Plan was installed first followed by PM Compass, you must run both **Opp_Oracle_CI_Indexes.sql** and **WST_Oracle_CI_Indexes.sql**.

- If PM Compass was installed first followed by Open Plan, you only need to run **Opp_Oracle_CI_Indexes.sql**.

Script	Description	Location
Opp_Oracle_CI_Indexes.sql	Run this script to create case-insensitive indexes in Open Plan tables for integration with PM Compass. For explicit Tablespace support, set the index_tablespace variable in the DECLARE section. To control the type of indexes that are created, see the indextype variable in the DECLARE section.	\SQL\Oracle\Utility
WST_Oracle_CI_Indexes.sql	Run this script to create case-insensitive indexes on WST tables for integration with PMCompass. For explicit Tablespace support, set the index_tablespace variable in the DECLARE section. To control the type of indexes that are created, see the indextype variable in the DECLARE section.	\SQL\Oracle\Utility

The next step is to Set Up a Data Source for a New Database.

Set Up a Data Source for a New Database

After you have created a database and the Open Plan tables, the database must be initialized before it can be used. The Deltek Open Plan Data Tool is used to set up the default system data, security data, and optionally, the demonstration data.

To connect to a newly created database, you must add an Open Plan data source. An Open Plan data source has all the connection information that Open Plan needs in order to work with a database.

Log Into the Deltek Open Plan Data Tool

> **Note:** This procedure is not required for the supplied Microsoft Access database.

To log into the Deltek Open Plan Data Tool, complete the following steps:

1. Click **Start » All Programs » Deltek Open Plan <version> » Tools » Deltek Open Plan Data Tool**.

2. On the Data Tool Login dialog box, enter the password. (The default password as shipped from Deltek is **password**.)

3. Click **OK**. The Deltek Open Plan Data Tool dialog box displays.

Change the Deltek Open Plan Data Tool Password

> **Note:** Deltek recommends that you change the password you used for login to prevent its unauthorized use.

To change the Deltek Open Plan Data Tool password, complete the following steps:

1. Click **Start » All Programs » Deltek Open Plan <version> » Tools » Deltek Open Plan Data Tool**.

2. On the Data Tool Login dialog box, enter the password.

3. Click **Password**.

4. Enter a new password and confirm the new password.

5. Click **OK**.

Set Up a Data Source for a New Oracle Database

Use the procedure in this section to set up an Open Plan data source for a new Oracle database.

For Oracle, you can either set up an account (user name and password) that automatically restricts access to a specific schema, or use a general account and specify the schema name in the Edit Data Source dialog box.

To set up an Open Plan data source for a new Oracle database, complete the following steps:

1. Click **Start » All Programs » Deltek Open Plan <version> » Tools » Deltek Open Plan Data Tool**.

2. On the Data Tool Login dialog box, enter the password.

3. On the Deltek Open Plan Data Tool dialog box, click the Target DSN ellipses button.

4. On the Data Sources dialog box, click **Add**.

5. On the Provider tab of the Data Link Properties dialog box, select the appropriate database provider from the list.

   Open Plan supports the Microsoft OLE DB Provider for Oracle and the Oracle Provider for OLE DB. Open Plan does not support the Microsoft OLEDB Provider for ODBC Drivers.

6. Click **Next**.

7. On the Connection tab, enter the following information:

   ▪ **Server name**

   ▪ **Valid user name and password for the database**

   > **Note:** If you want to save your user name and password, select the **Allow saving Password** option. Select **Blank Password** only if your user name does not have an associated password.

8. Click **Test Connection**.

9. When a message displays indicating that the connection tested successfully, click **OK**.

10. Click **OK** on the Connection tab of the Data Link Properties dialog box.

11. On the Edit Data Source dialog box, enter a name for the Open Plan data source and the **Database Name (Schema)**. This field is used to identify the source. Leave this field blank if you are not using schemas or Access.

12. The scripts for creating tables default to a Unicode installation. If the Open Plan tables were created as non-Unicode, clear the **Database is Unicode** option.

13. Click **OK**. The new data source is added to the list on the Data Sources dialog box.

14. Select the new data source, and click **OK** to return to the Deltek Open Plan Data Tool dialog box.

Do not close the Deltek Open Plan Data Tool. You will need this tool to load default data.

The next step is to Load Default Data.

Set Up a Data Source for a New SQL Server Database

Use the procedure in this section to set up an Open Plan data source for a new SQL database.

To set up an Open Plan data source for a new SQL Server database, complete the following steps:

1. Click **Start » All Programs » Deltek Open Plan <version> » Tools » Deltek Open Plan Data Tool**.

2. On the Data Tool Login dialog box, enter the password.

3. On the Deltek Open Plan Data Tool dialog box, click the Target DSN ellipses button.

4. On the Data Sources dialog box, click **Add**.

5. On the Provider tab of the Data Link Properties dialog box, select the appropriate database provider from the list.

> **Note:** Open Plan supports the Microsoft OLE DB Provider for SQL Server and the SQL Server Native Client. Open Plan does not support the Microsoft OLE DB Provider for ODBC Drivers.

6. Click **Next**.

7. On the Connection tab, enter the following information:

    ▪ **Server Name** – Select or enter the appropriate server name.

    ▪ **Information to log on to the server** – Select whether to use Windows NT Integrated Security or to use a specific user name and password. If you elect to use a specific User name and Password, enter a valid user name and password for your database.

    ▪ **Blank password** – Select this option only if your user name does not have an associated password.

    ▪ **Allow saving password** – Always select this option. Both the user name and password are encrypted and the information is stored in the Datasources.dat file along with the connection properties. If this option is not selected, the users are prompted to log into the database each time they launch Open Plan and they may encounter database errors.

    ▪ **Select the database on the server** – Select the appropriate database to use on the server by default. This name is used to identify the data source in the Data Sources dialog box.

    ▪ **Attach a database file as a database name** – Select this option if you want to attach a database file directly.

> **Note:** If you want to save your user name and password, select the **Allow saving Password** option.

8. Click **Test Connection**.

9. When a message displays indicating that the connection tested successfully, click **OK**.

10. Click **OK** on the Connection tab of the Data Link Properties dialog box.

11. On the Edit Data Source dialog box, enter a name for the Open Plan data source.

12. If you selected a database name on the Connection tab of the Data Link Properties dialog box, leave the **Database Name (Schema)** field blank if you are not using schemas or Access.

13. The scripts for creating tables default to a Unicode installation. If the Open Plan tables were created as non-Unicode, clear the **Database is Unicode** option.

14. Click **OK**. The new data source is added to the list on the Data Sources dialog box.

15. Select the new data source, and click **OK** to return to the Deltek Open Plan Data Tool dialog box.

    Do not close the Deltek Open Plan Data Tool. You will need this tool to load default data.

The next step is to Load Default Data.

Load Default Data

Use the Deltek Open Plan Data Tool dialog box to set up default data. Using this dialog box, select the data source you created in the Edit Data Sources dialog box from the Target DSN field.

> **Note:** Running the data tool erases all data of the specified type in the data source that you use it against.
>
> The data tool cannot be run on data sources that have PM Compass installed. The options and the **Create Data** button are disabled when PMCompass is detected in a data source.

Select the appropriate fields on the Deltek Open Plan Data Tool dialog box:

- The **Install default data** option needs to be run only once for a data source. It will refresh the data dictionary, security data, system library, explorer folders, spread curves, views, title blocks, bar sets, and symbols.

- If you select the **Remove existing data** option, all data in the data source will be removed before the default data is installed.

- The **Install demonstration data** option installs the demonstration projects Clean, Constr, Develop, Movie, Movie15, Pharmacy, STS-65, Ship, and Tour. To install the demonstration data, you must select the **Remove Existing Data** option.

To load default data, complete the following steps:

1. Click **Start » All Programs » Deltek Open Plan <version> » Tools » Deltek Open Plan Data Tool**.

2. On the Data Tool Login dialog box, enter the password.

3. On the Deltek Open Plan Data Tool dialog box, in the **Target DSN** field, select the data source that you previously set up and click **OK**.

4. Select **Install Default Data**.

   > **Note:** To install the demonstration data, select **Remove Existing Data**, and then select **Install Demonstration Data**.

5. Click **Create Data**.

6. After the data has been created, click **Close**.

Create Users and Groups

Use the Deltek EPM Security Administrator to create users and groups, and add users to the groups.

> **Attention:** For more information, see the Deltek EPM Security Administrator online help.

To launch the Deltek EPM Security Administrator:

1. Click **Start » All Programs » Deltek Open Plan <version> » Security » Deltek EPM Security Administrator**.

2. Select a data source, and click **OK**.

3. On the EPM Security Administrator Login dialog box, enter your User ID and password, and click **OK**.

The next step is to Give Users the Appropriate Open Plan Folder Permissions.

Give Users the Appropriate Open Plan Folder Permissions

When installing Open Plan Professional on a network, the following network access rights must be provided to users:

Open Plan Professional Folder	Required Access Rights
Opp	Read
\Documentation	Read
\Help	Read
\Sample Data	Read
\Sample Tools	Read (or write if the users want to modify the sample source code)
\Spell	Write (to add words to dictionary)
\SQL	Read (Write to use the default Access database)
\Symbols	Read
\User	Read
\Workstation Setup (Server installations only)	Read

Modify, Repair, or Uninstall Open Plan

Open Plan provides facilities for changing which features are installed, repairing installation errors, and removing Open Plan. Use the procedure in this section to change your Open Plan installation structure.

To modify, repair, or remove your Open Plan installation, complete the following steps:

1. Launch the MS Windows Control Panel.

2. Click **Programs and Features**.

3. On the **Programs and Features** list, right-click **Deltek Open Plan Professional <version>** and click **Change** on the context menu. The Deltek Open Plan Professional <version> Setup Wizard displays.

4. Click **Next**.

5. On the **Modify, Repair, or Remove Installation** page, select one of the following options, depending on the task that you want to do:

   - **Modify** — Select this option to change your Open Plan installation structure. Selecting this option displays the **Custom Setup** page.

   - **Repair** — Select this option to repair installation errors by reinstalling the Open Plan components. Selecting this option displays the **Repair Deltek Open Plan Professional <version>** page. Click **Next** to repair Open Plan.

   - **Remove** — Select this option to uninstall Open Plan from your machine. Selecting this option displays the **Remove Deltek Open Plan <version>** page. Click **Next** to uninstall Open Plan.

6. When the process is complete, click the **Finish** button to exit the Setup Wizard.

Next Steps

Open Plan includes a number of tools to help you learn about the features and operations of the product.

Guided Tour

To help you get up to speed as quickly as possible, Open Plan provides a guided tour that includes several facilities designed to introduce you to the basic operations of the package. The tour uses sample project data that comes with your installation to introduce you to the basics of Open Plan. There is no substitute for a hands-on encounter with the software, and that is what this tour is designed to provide. For information, see the *Deltek Open Plan Guided Tour* Guide.

Online Help

Use the Getting Started with Open Plan topics in the online help to familiarize yourself with the Open Plan features and processes.

Developer Guide

For in-depth information about advanced topics, review the *Deltek Open Plan Developer Guide* which includes information on topics such as customizing project views, data file structures, compatibility issues, and OLE automation techniques.

Training Courses

For information on Open Plan training courses, visit our Web site at www.deltek.com. Click **Learn » Deltek University » Browse Courses**. In the Deltek Learning Zone, click on the Open Plan icon. You can learn more about training and browse for specific courses on that page.

Troubleshooting

System Error When Launching Open Plan

The following error might display when you launch Open Plan: "The program can't start because api-ms-win-crt-runtime-l1-1-0.dll is missing from your computer. Try reinstalling the program to fix this problem."

If this error occurs when launching Open Plan, you need to download and install the Universal C Runtime for Windows from Microsoft.

Microsoft KB article 2999226 provides information about how to download and install this update:

https://support.microsoft.com/en-us/help/2999226/update-for-universal-c-runtime-in-windows.

Open Plan Crashes When you Open the Network View

If Open Plan crashes when you open the network view, verify that the print spooler is running and that you have a configured printer.

To start the print spooler, complete the following steps:

1. **Navigate to Administrative Tools » Services.**
2. **Locate the Print Spooler service.**
3. **Right-click and select Start.**

To confirm that there is a configured printer for Open Plan, complete the following steps:

1. Launch Open Plan.
2. Click **File » Print » Print** and confirm that you can select a printer. If there is no printer, you need to connect to one.

To select a network printer for Open Plan, complete the following steps:

1. Launch Open Plan.
2. Click **File » Print » Print Setup**.
3. Click **Network** and select a network printer.

Custom Tools Are Not Connecting to Open Plan

When you develop a custom tool that uses the Open Plan API, you may need to manually register the Open Plan .exe file in order for the tool to connect to Open Plan.

You can do this by opening a Command Prompt window and running: openplan /register.

SQL Server Connection Errors

- **Microsoft OLE DB Provider** — If your database server requires a secure connection, and you are using the default Microsoft OLE DB provider for SQL Server, you may see the following error when you log into Open Plan:
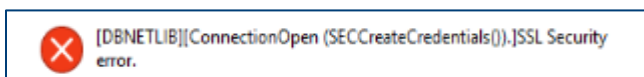
In order to resolve the issue, install the SQL Server Native Client and then follow the steps below.

▪ **SQL Server Native Client** — When you use SQL Server Native Client and specify a database username and password, you may see the following error when you log into Open Plan:

⚠ Login failed. Catalog information cannot be retrieved.

You must complete the steps below in order to get the data source to remember the password.

To resolve the SQL Server connection errors:

> **Note:** You will need to complete these steps any time you create or edit the properties in the Data Link Properties dialog box for the SQL Server Native Client.

1. In Open Plan, click **File » Preferences » Data Sources**.

2. Select the data source and click **Edit**.

3. Click Data Link Properties.

4. On the Provide tab, select **SQL Server Native Client <version>** and click **Next**.

   The Microsoft ODBC driver is not supported and does not display in this list.
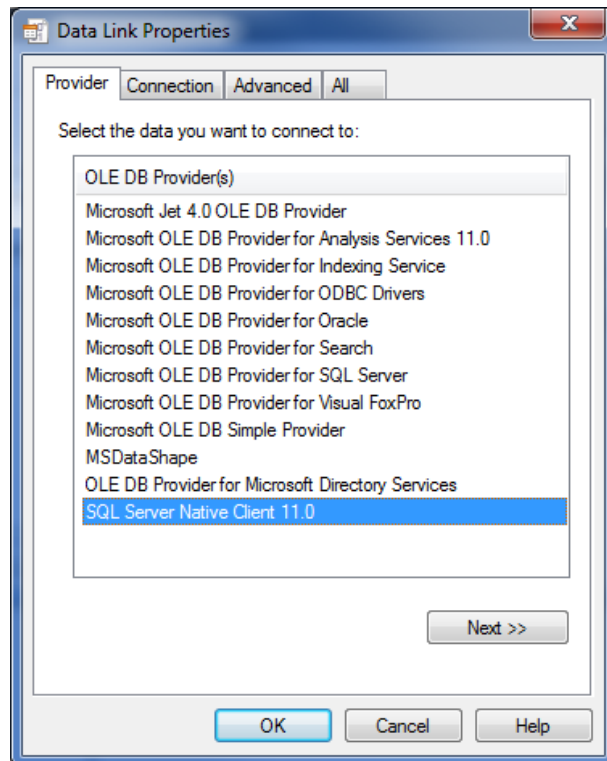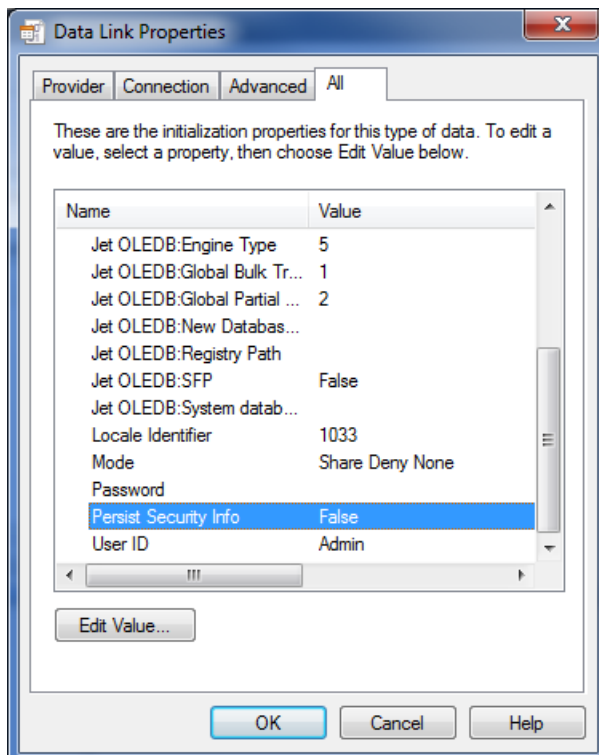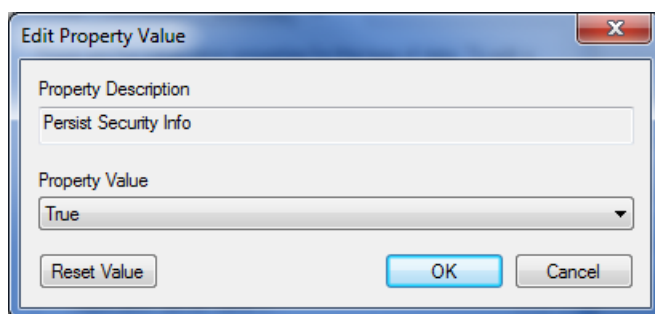

5. On the Connection tab:

   a. Select or enter a server name.

   b. Enter your SQL Server username and password. To enter the password, you will need to clear **Blank Password** and select **Allow saving password**.

c. Select the database.
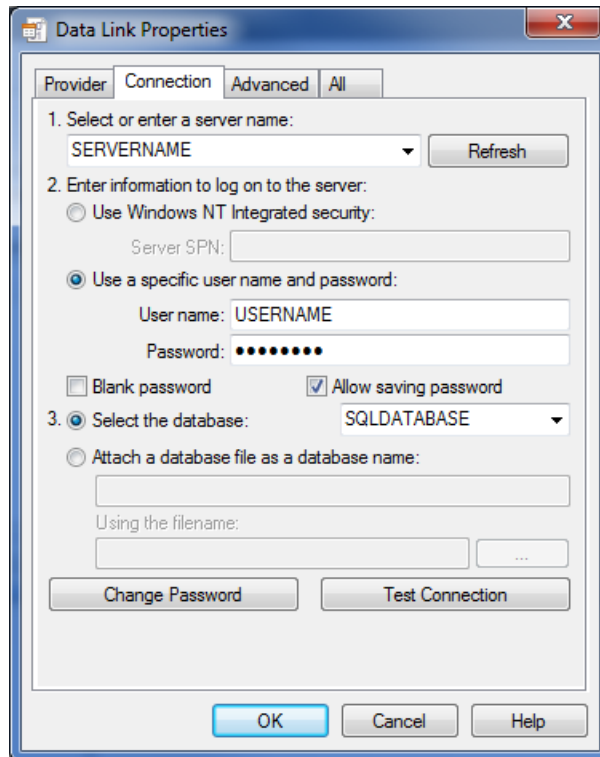
6. On the All tab, scroll down to **Persist Security Info**.

7. Double click the option and select **True** in the **Property Value** field.

8. Click **OK** to close to the property dialog box.

9. Click **OK** to close the Data Link Properties dialog box.

Appendix A: Open Plan Terminal Services (Remote Desktop Services)/Citrix Installation

This appendix is designed to explain the additional steps required to install Open Plan in a shared application server (MS Terminal Server/Remote Desktop Services or Citrix XenApp Server) environment.

Version Information

Beginning with Windows Server 2008 R2, Terminal Services was renamed Remote Desktop Services. In addition to the name change, the deployment and configuration of Remote Desktop Services have changed significantly. For guidance on deploying the Remote Desktop Services Role and Features, refer to the Microsoft Remote Desktop Services documentation page (https://technet.microsoft.com/en-us/windowsserver/ee236407).

> **Note:** In this appendix, the terms "Terminal Services" and "Remote Desktop Services" are used interchangeably.

Many customers use Open Plan on Citrix XenApp Server. Citrix offers more sophisticated load balancing capabilities and provides solutions for cross platform remote access.

Important Information

For improved application performance, Deltek strongly recommends that all application software be accessed in a Terminal Server/Remote Desktop Services environment installed locally on the Terminal Server/Remote Desktop Session Host application server. For Windows 2008 R2 or higher, when deploying the Remote Desktop Services role, the **session-based desktop deployment** scenario is recommended and is comparable to the deployment of Windows Terminal Services of Windows 2008 and earlier versions.

Database Connections

The two most important factors affecting Open Plan performance are memory available to the application and database performance. Deltek recommends that Open Plan Professional be used with either SQL Server or Oracle in a multi-user environment and that the database server be close to the Terminal Server/Remote Desktop Session Host application server. Smaller implementations can install the database software on the Terminal Server/Remote Desktop Session Host itself but for larger implementations (more than 10 users) we recommend a separate database server. We suggest that the Terminal Server and database server be connected to the same network switch and that if the solution will be supporting many users, then serious consideration should be given to a Gigabit link.

Server Sizing

We recommend that you follow the application server supplier guidelines for server sizing. Open Plan falls into the knowledge worker category for sizing purposes. In the absence of other advice Deltek suggests 200MB for the system and 50MB per concurrent user. Accepted wisdom is that one fast processor is more advantageous than 2 slow processors so we would suggest considering a dual 3 GHz solution over a quad 1.5 GHz solution (a quad 3 GHz is better).

Terminal Server/Citrix Installation

The recommended approach for Terminal Server/Citrix installation is to install the application locally on the server using the **Complete** installation option. The appropriate menu options will be added for all users. Terminal Server/Citrix will automatically create appropriate registry entries for each user. Open Plan Professional will automatically create the required user files when first launched in the users My Documents folder.

> **Attention:** For details on how to change this behavior, see <u>Modifying the User Directory</u>.

When a Terminal Server is in Application Server mode (required to support remote access by more than 2 users) the Server must be placed into Installation Mode so that it will correctly copy application registry keys for new users. The correct way to enter Installation Mode is to use the **Programs and Features** option in the Control Panel.

In **Programs and Features**, find and double-click **Deltek Open Plan Professional <version>.exe**. Select the **Complete** Installation.

Security Considerations

Make sure the users requiring Remote Desktop access are members of the Remote Desktop Users group or that the users have been granted Terminal Server logon rights through the local security policy (Administrative Tools; Local Security Policy).
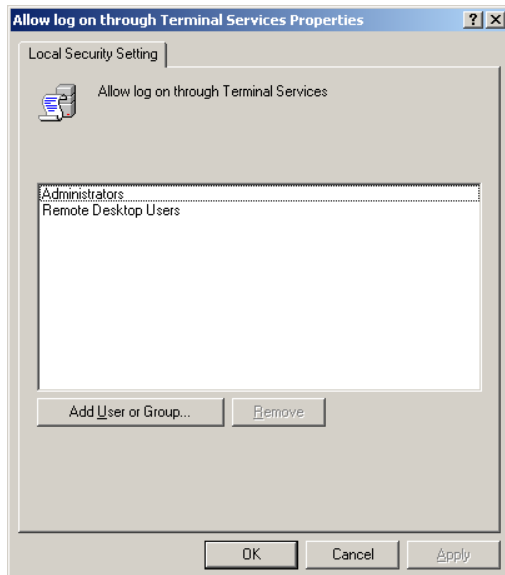
The limited user group must be granted MODIFY access to the default MS Access database if this will be used.
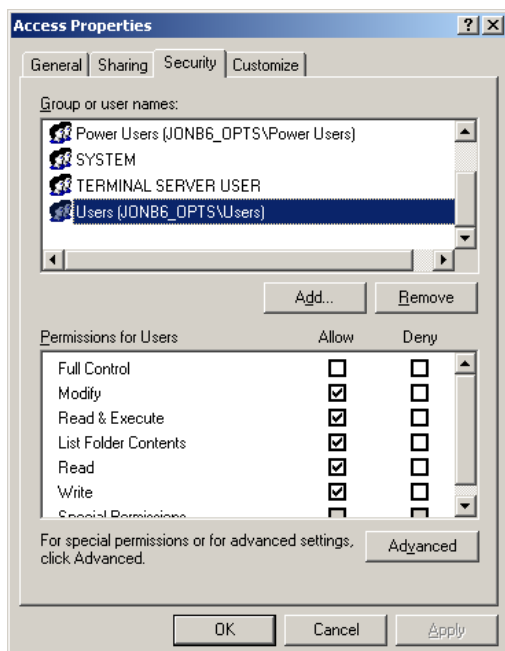
If this data source will not be used then the Administrator must update the Open Plan DATASOURCES.DAT file with the appropriate connection settings for the required database.

Logon as the limited user

Run Open Plan (menu and desktop items should automatically appear).

The user's My Document folder will be updated to include a Deltek folder containing the Open Plan working files, including the BRIEFCASE database and SPELLING DICTIONARIES, among others.
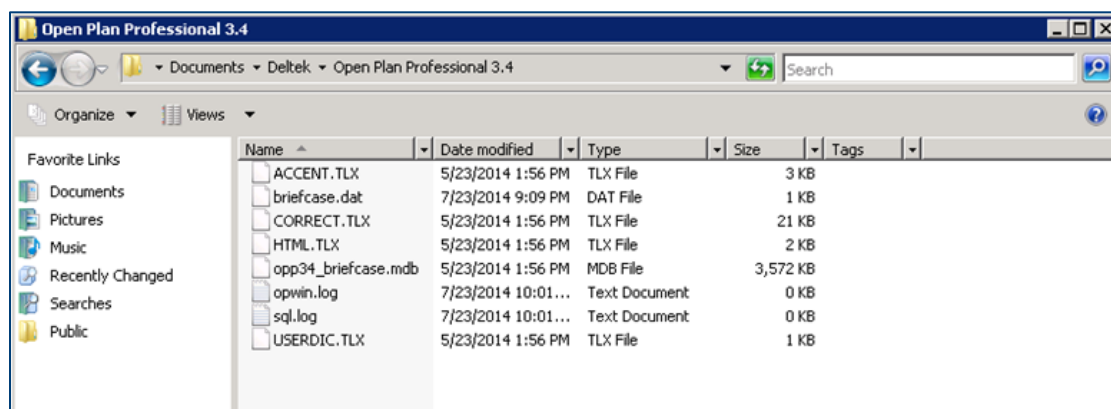
Modifying the User Directory

Open Plan defaults to creating the user working directory as a subfolder of the current users **My Documents\Deltek** folder. It is possible to globally modify this behavior by adding the following line to CONFIG.DAT in the root of the Open Plan installation.

```
[SYSTEM]
UserDir=N:\OPP
```

This would cause Open Plan to create the Open Plan files in the folder N:\OPP. It is the System Administrator's responsibility to ensure that this represents a unique location for each user. This means that typically Drive N: must be mapped as part of the login process, taking care to map to a different physical folder for each user.

Appendix B: Open Plan Databases

Access

A default Access database is automatically created when Open Plan is installed and Open Plan is configured to use this database by default.

Oracle and SQL Server

If you prefer to have Open Plan use an Oracle or SQL Server database, you first need to create tables and define a data source. When you configure an SQL database, you must consider several aspects regarding the database itself:

- Database size
- Transaction log size
- Database permissions

Refer to your Oracle or MS SQL documentation for information on how to create a database.

Upgrading the Database

Upgrading from an earlier version of Open Plan requires upgrading the database. The update scripts are located in the Open Plan executable folder. For more information, see Upgrade from Earlier Versions of Open Plan.

Database Size

When creating the Open Plan database, you must consider the number of anticipated project elements that will be created in Open Plan and the number of records the project elements will contain. Generally, each project activity uses 3000-4000 bytes. Each project baseline adds an additional 2000-3000 bytes per project activity. Note records contain variable length free-form text and can add up to an additional 32,000 bytes for each note in use.

Following these rules, a typical 1000-activity project with two baselines and notes containing 200 bytes of text on 20% of the activities would require approximately 10 MB of disk space, not including database-specific overhead. You can use the Excel spreadsheet (sizing30.xls) located in the Open Plan destination folder to help estimate disk requirements.

Transaction Log Size

Open Plan performs updates on large numbers of database table rows when saving changes to project data. Transaction logs must be sized appropriately to allow for these types of operations.

Database Permissions

To create and modify project elements in the database, you must have the following permissions on the Open Plan tables: SELECT, INSERT, UPDATE, DELETE, and EXECUTE.

It is not necessary to create a separate user account for each Open Plan user on the database, nor is it necessary for users to see the database login prompts.

Appendix C: Deltek Open Plan Professional Folder and Files

Start Menu

In addition to a shortcut to the Open Plan application, the installation creates several folders with shortcuts under the Deltek **Open Plan <version>** folder.

Documentation

The following reference materials are available in the Documentation and Help folders:

- **Open Plan Help System** – The Open Plan context-sensitive help system.
- **Open Plan Release Notes** – A document that discusses the new features and enhancements of this release, changes to the documentation, and the Software Issues Resolved.
- **Open Plan Guided Tour** — A document that introduces you to the basic Open Plan operations using sample project data that comes with your installation.
- **Open Plan Developer Guide** – A reference manual for more technical topics in Open Plan.
- **Open Plan Batch Processor Guide** — Information about running the Open Plan multi-instance batch processor.

Security

EPM Security Administrator – The EPM Security Administrator allows you to define the security rights for Open Plan. EPMSecAdmin.exe is installed in the root of the Open Plan installation folder.

Tools

Deltek Open Plan Data Tool – A utility to set up the default system data, security data, and optionally, the demonstration data. OpenPlanDataTool.exe is installed in the root of the Open Plan installation folder.

Appendix D: If You Need Assistance

If you need assistance installing, implementing, or using Deltek Open Plan, Deltek makes a wealth of information and expertise readily available to you.

Customer Services

For over 30 years, Deltek has maintained close relationships with client firms, helping with their problems, listening to their needs, and getting to know their individual business environments. A full range of customer services has grown out of this close contact, including the following:

- Extensive self-support options through the Deltek Support Center.
- Phone and email support from Customer Care analysts
- Technical services
- Consulting services
- Custom programming
- Classroom, on-site, and Web-based training

> **Attention:** Find out more about these and other services from the Deltek Support Center.

Deltek Support Center

The Deltek Support Center is a support Web site for Deltek customers who purchase an Ongoing Support Plan (OSP).

The following are some of the many options that the Deltek Support Center provides:

- Search for product documentation, such as release notes, install guides, technical information, online help topics, and white papers
- Ask questions, exchange ideas, and share knowledge with other Deltek customers through the Deltek Support Center Community
- Access Cloud-specific documents and forums
- Download the latest versions of your Deltek products
- Search Deltek's knowledge base
- Submit a support case and check on its progress
- Transfer requested files to a Customer Care analyst
- Subscribe to Deltek communications about your products and services
- Receive alerts of new Deltek releases and hot fixes
- Initiate a Chat to submit a question to a Customer Care analyst online

> **Attention:** For more information regarding Deltek Support Center, refer to the online help available from the Web site.

Access Deltek Support Center

To access the Deltek Support Center:

1. Go to https://deltek.custhelp.com.
2. Enter your Deltek Support Center **Username** and **Password**.
3. Click **Login**.

> **Note:** If you forget your username or password, you can click the **Need Help?** button on the login screen for help.

Additional Documentation

The following table lists the Deltek documentation available for this release. Except where noted, all the user guides and quick reference guides listed in this table are available for download from the Deltek Support Center.

Document Name	Description
Deltek Open Plan Batch Processor Guide	This document contains information about running the Open Plan multi-instance batch processor.
Deltek Open Plan Developer's Guide	This document is meant to serve as a reference manual for more technical topics in Open Plan.
Deltek Open Plan Guided Tour	This document introduces you to the basic Open Plan operations using sample project data that comes with your installation.
Deltek Open Plan Milestone Professional Interface Add-In Module	This document is meant to serve as a guideline for using the Milestones Link tool.
Deltek Open Plan Release Notes	This document contains a summary of the pre-installation information, rew features and enhancements, database changes, and software issues resolved.
Deltek Open Plan Technical Overview and System Requirements	This document is meant to serve as a guideline for hardware and software requirements and provide your firm's IT department with information about the technical deployment architecture.

About Deltek

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