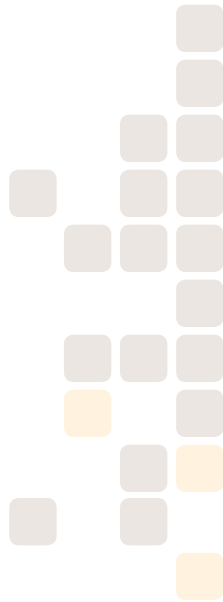


The benefits of Portfolio SQL Connect for digital asset management



The Extensis Portfolio suite provides a number of options for companies looking for an effective solution to manage their digital assets. Portfolio Server is a critical component for workgroup (client/server) digital asset management. But for companies looking to add scalability and functionality, Extensis offers add-ons to Portfolio Server. Portfolio SQL Connect allows you to store Portfolio Server data in relational databases, and Portfolio NetPublish creates a read-only web front-end to your system.

So when do you know if one of these add-on components is right for you? This overview focuses on when a company should consider Portfolio SQL-Connect and the benefits of this solution. (If you would like more information about Portfolio NetPublish, please see the Portfolio NetPublish technical brief available from www.extensis.com.)

To help determine your company's digital asset management needs, ask yourself the following questions:

- 1** Do you have the need now (or in the near future) to manage 100,000 or more assets?
- 2** Do you have multiple users adding or updating cataloged items from your database at high frequency?
- 3** Does your company currently use an SQL database, such as Microsoft SQL Server, Oracle, or MySQL?
- 4** Do you need the ability to build custom reports and database queries?

If you answered "yes" to any of these questions, then you should be considering SQL Connect.

To help you decide if this path is right for you, let's delve into some of the more technical benefits of using a Portfolio SQL Connect and an appropriate SQL database for your asset management needs.

The main technical benefits of a Portfolio SQL Connect solution include:

1. It's a stable and scalable solution.
2. It allows you to leverage your investment in relational database management system tools.
3. Compatible with many data warehousing strategies, making Portfolio a true enterprise solution.

Before examining each of these benefits, it's important to understand the products involved in a typical Portfolio SQL Connect installation: Portfolio Client, Portfolio Server, SQL Connect, and a compatible SQL database.



Portfolio Client

The Portfolio Client can be used as a standalone application for organizing digital assets, and serves as the main point of access for configuring the advanced functions of Portfolio Server and SQL Connect.



Portfolio Server

The Portfolio Server application provides a single point of contact to a shared Portfolio catalog. The server automatically maintains and synchronizes catalog files across the network.



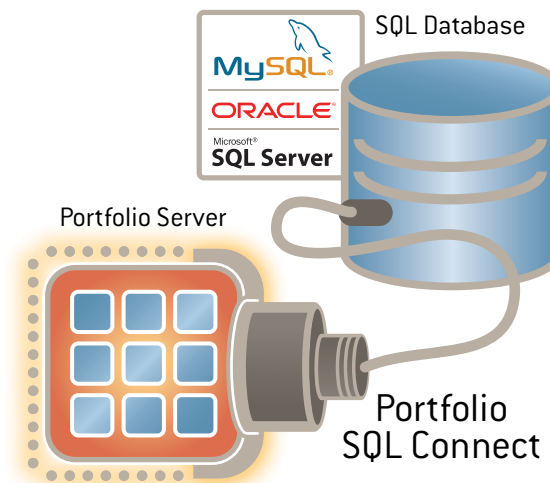
Portfolio SQL Connect

SQL Connect is a powerful module that allows Portfolio Server to store data in more robust SQL databases, such as Microsoft SQL Server, MySQL or Oracle.



SQL database

In addition to Portfolio SQL Connect, a compatible SQL database is required to store all of your catalog data. See the Extensis website for a list of compatible databases.



Portfolio SQL Connect allows you to meld the power of an SQL database with the ease-of-use of Portfolio Server.

SQL Connect: A stable and scalable solution

Speed, even with a large number of assets

For single-user and standard Portfolio Server installations, all of your catalog references are stored in an FDB catalog. These catalogs are very efficient and optimized for catalogs ranging in size of several hundred assets up to tens of thousands. But if your needs require managing more than a hundred thousand assets, then a solution that is optimized to handle this increased workload is justified.

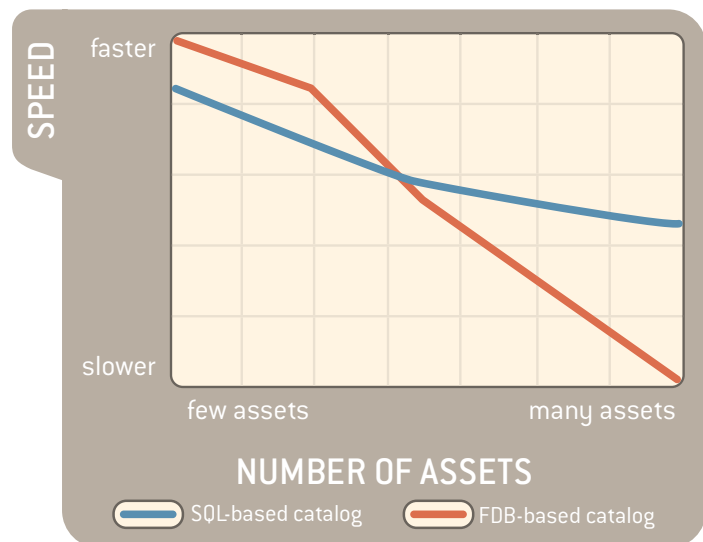
This becomes apparent when we examine how data is stored in each type of database.

FDB catalogs are a relatively “flat” type of database. Information is stacked into a single file, like cards in a deck. Portfolio essentially, must flip through the entire catalog like a deck, identifying each card, returning the location in the deck. For example, a search can locate all of the Hearts, the red Kings or just the two of Diamonds.

But when using SQL Connect, all catalog information is stored in a separate SQL database. These databases have sophisticated indexes that allow records to be found without having to “flip through the entire deck.” Because of this optimization, when you search for items stored in an SQL database, locating the information can be very efficient, even in extremely large databases. As a matter of fact, the benefits of SQL are much more apparent when you start hitting the larger number of items.

So, the speed of your database can be linked to the number of assets that you manage, as well as the type of database that you use. In some instances where you only have a small number of items, an FDB catalog may be the optimal solution.

Where an SQL solution shines is when your databases grow to be very large. Locating items in catalogs that have tens of thousands or hundreds of thousands of items will often perform similarly. An SQL solution can deliver more predictable and stable performance.



Support for a high level of change in the database

In some situations, assets are moved around an organization and from one system to another quite frequently. This can mean that assets are regularly added to and removed from the database.

With typical “flat” databases, such as a standard Portfolio FDB catalog, each time a file is added; new cells are created in the database. When the files are subsequently removed from the database, the new cells that were created during that file’s addition remain, unused, in the database. This process, if frequent, can have the effect of fragmenting your data. To use the card analogy again, these unused records still need to be scanned, even though they are blank, so you end up with a bigger and bigger deck, with slower scans. The results can cause your database files to grow larger and larger as you add and remove items from the database. To solve this problem, Portfolio includes the “Recover” command that processes catalogs to remove these empty database cells. While effective, this command can take time to process, and the catalog must be taken offline during the recovery process and cannot be accessed by users.

With Portfolio SQL Connect, and a compatible SQL database, all of your data is stored in an SQL database. Each of the potential SQL database engines contain their own specific optimization tools that keep your database healthy, without the need to take your database offline. For example, using MySQL, you can use the MySQL Administrator to optimize key parameters of your database; from memory management to table type configuration.

Leveraging your investment in relational database management system tools

In a professional environment where an SQL solution is already in place, it’s likely that there is an investment in specific software tools to keep the relational database healthy. Portfolio SQL Connect allows you to tap into those powerful SQL tools and leverage them to better manage your digital assets.

Professional optimization

You want your database to be as fast as possible. Your users want to find their assets quickly. Using an SQL database, you can achieve these goals.

By adding additional indexes to the SQL database you can significantly improve the performance of your database. When administering an SQL database, you can see the types of queries that are commonly being performed on the database. Adding new indexes to the SQL database, effectively

“tunes” the database to your needs. For example, if you see that your clients are frequently querying the database on a specific custom field, you can create an index on that field. The next time a user searches on that custom field, the search results are located in the index, effectively speeding up the process.

The optimization tools used varies from one database engine to another. For example, with Microsoft SQL Server, the “SQL Profiler” and the “Index Tuning Wizard” can be used to monitor performance activity and tune your database. With a MySQL-based solution, the “Explain” statement allows you to see how MySQL issues a specific query. Based on this feedback, you can supplement your database with indexes and/or other performance “tweaks” to make your queries more efficient.

Sophisticated backup

An SQL Connect solution also allows you to take advantage of sophisticated backup tools and processes available for all SQL databases. Most significantly, this contains the ability to perform “hot” backups of your data, giving you the ability to backup the Portfolio catalogs when users are logged in, and potentially modifying the database. In contrast, standard Portfolio FDB catalogs require all users to disconnect and the Portfolio Server to be stopped before starting the backup process.

All of the supported SQL database engines support automated backup of the database. For example, in Microsoft SQL Server, you can use the Maintenance Plan Wizard to schedule regular backups as well as other maintenance tasks that ensure your database is running smoothly.

With an SQL solution, you also have the ability to perform incremental backups of transactional data. Most SQL solutions also have a transaction log, which is a history file of every change to the database. Incremental backups allow you to back up these logs, so that if an error occurs with the database, you can step back through all of the changes to see where an issue appeared. Using an incremental backup gives you piece of mind, and doesn't require the large time commitment of full database backup.

SQL is a standard

SQL, or Standard Query Language, is an ANSI/ISO standard, and one of the most popular ways of retrieving information from relational databases. Because it has been developed for many years to be such a standard, integration with other applications, even custom application is possible. Custom applications can be developed in almost any language to access your data. You can use PHP, Java, C++, C# or any other language to that supports this standard.

Using SQL also gives you data longevity. With your data housed in an SQL database, you have the flexibility to access the data from Portfolio or any other custom application for years to come.

Open access and external reporting features

Because of the direct access to data in an SQL database, you can easily program applications that give you custom statistics on your data usage. These applications can run outside the standard Portfolio Server interface, and can display whatever data you require.

Most of the basic Portfolio data stored in the SQL database is located in one specific table, the “Item_ table”. This includes the filename, path, date cataloged, last updated, file size, type, etc. External queries can easily be formulated based on these tables.

For example, you could create an application that reports the number of files added to the database per day, or one that indicates which users are adding and changing the most items, and even reports that list the most commonly accessed files. In addition, you could use a tool—such as SQL Mail for Microsoft SQL Server—to setup a process that sends you an email when something new is added, or when a custom field is modified.

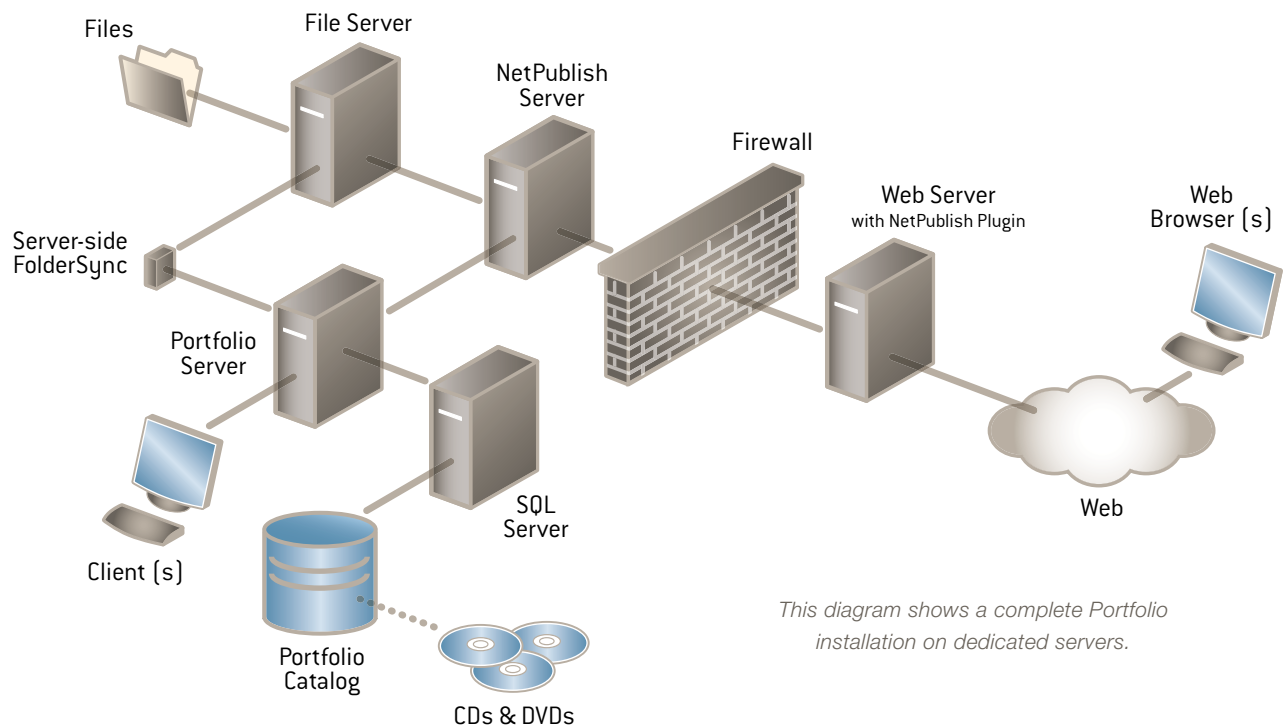
With an SQL database, there are tools that allow you to interact with your data on a much deeper level than the standard FDB catalog. For example, you can see files as they are being opened by the Portfolio Client, and can develop applications which give you almost instantaneous feedback about the status and use of your assets.

It is also possible to bring your database to the web. The easiest method is to add Portfolio NetPublish to make your assets available on the web. Yet, if you have highly customized needs, you can create your web applications directly from the SQL database with PHP, Java or any other SQL compliant programming language.

The external reporting features of an SQL-based solution are virtually limitless. In addition, any SQL-compliant application can access and utilize your catalog data.

True data warehousing and a real enterprise solution

Another valuable benefit of implementing Extensis Portfolio Server in conjunction with SQL Connect, is that it offers your organization the ability to implement a true data warehousing strategy. Due to the ability of the Portfolio suite of products to run in a decentralized manner, it is easy to place all of your data files in a central, secure location. As the diagram below represents, you can run the Portfolio Server, SQL Server and File Server all on dedicated machines. It is not necessary to do so, but if your organization stores all of its files for many departments on a single storage device, the Portfolio solution will accommodate these needs.



This diagram shows a complete Portfolio installation on dedicated servers.

For more information

For more information about Portfolio SQL Connect, or to schedule a product demonstration, please contact Extensis Corporate Sales.

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