

Dynamsoft™ PRESENTS...

## Fast and Secure SourceSafe™ Remote Access

### ◆ The Problem

In the 21st century, global development teams are a reality. Software products are routinely built by teams distributed across the globe. However, whether developers are in India, Israel or the Silicon Valley, they all need to access the same code base.

Microsoft® Visual SourceSafe™ (VSS) is a popular source control package, and ideal for sharing code across a local area network. However, once you leave the office LAN, VSS becomes unviable.

Remote developers need a reliable, scalable solution that provides them with consistent and secure access to their centralized SourceSafe repository. They require a distributed development environment that:

- **Offers High Performance Remote Access**

A developer's time is precious, and shouldn't be wasted checking code in and out from the repository over a slow connection.

- **Applies Robust Security**

After people, source code is a software company's most valuable asset. As development moves outside the LAN into riskier waters, it must be kept secure.

- **Guarantees Reliability**

Data corruption is unacceptable, so remote access to SourceSafe must be dependable.

- **Provides a Consistent View of the Code Base**

It's vital that all developers can access the code repository in real-time, and view a complete, up-to-date history on any asset.

*"Already, more than 300 of the Fortune 500 firms do business with Indian IT services companies, according to Gartner. In addition, more than 40 percent of U.S. corporations will have completed some type of offshore IT pilot program."*

Ed Frauenheim, News.com

## ◆ The Solution

Dynamsoft SourceAnywhere for VSS™ is remote access software that extends Microsoft Visual SourceSafe beyond the office LAN, enabling you to securely use Visual SourceSafe easily over the Internet. With SourceAnywhere for VSS, you can perform almost any SourceSafe operation(s) from any remote location using standard Internet protocols.

*“If I’m working here, and you are working over there, and I make changes, you need to know which version we are at, and if either of us makes changes and it disrupts the system, we need to be able to go back out to the original version,” he explains. “Software change tools take on an extra importance in distributed development.”*

Matt Light, Gartner Analyst,  
*Application Development Trends*

## ◆ The Technology

Dynamsoft developed SourceAnywhere for VSS with core three objectives in mind:

1. Performance – To deliver the fastest remote access possible over TCP/IP.
2. Security – To apply a fail-safe approach to moving code assets across the Web.
3. Flexibility - SourceAnywhere for VSS provides broad platform support and integrates with the industry’s most popular IDEs.

### • Performance - Optimized For the Web

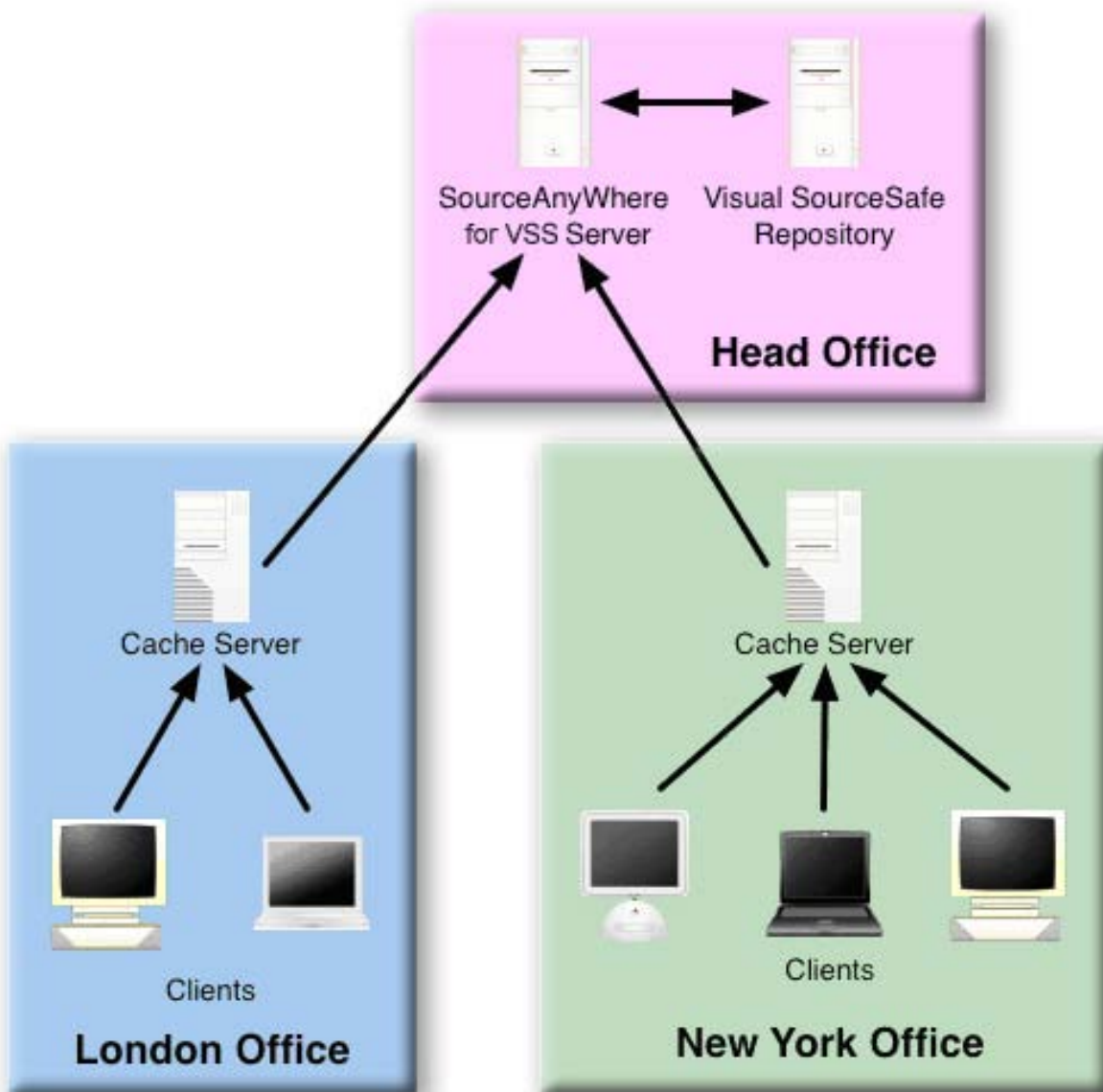
Over the Web, SourceAnywhere for VSS can be up to 100 times faster than Visual SourceSafe. Additionally, SourceAnywhere for VSS offers ‘delta transfer’, where only the changes between two files or assets are passed to and from the code repository. This ensures a minimum of bandwidth (and therefore a developer’s time) is used in file transfer.

### SourceAnywhere for VSS Cache Server

The newest version of SourceAnywhere for VSS features a Cache Server for distributed development. Cache Servers are run at remote sites, and are recommended when there is more than one developer at a particular location. They handle processing and bandwidth requirements, reducing the burden on the central code repository.

When a remote user requests a file, any revisions of files cached by the proxy server are delivered directly, significantly reducing the required bandwidth. If a copy of the file is already stored on the Cache Server, no request is sent to the central VSS server.

Because files are automatically cached, the Cache Server requires no maintenance--there is no need for backups at the remote sites. In the event of a hardware failure, the Cache server immediately begins to re-cache files, reducing downtime and network latency. The net effect of this approach is that administration and maintenance at remote development sites is greatly reduced.



*SourceAnywhere for VSS Cache Servers significantly improve performance for remote development offices.*

As with all the components of SourceAnywhere for VSS, the Cache Server uses TCP/IP to communicate both downstream to client computers and upstream to the SourceAnywhere for VSS Server.

## • **Security - Protecting the Code Base**

Source code is one of your organization's most valuable assets. While it's vital to provide remote access to your code repository, you must also be certain that all components of your source control system are secure from both accidents and malevolent attacks.

SourceAnywhere for VSS applies two 128-bit encryption protocols to ensure your source code is safe:

- **Secure Sockets Layer (SSL)**

This cryptographic protocol is the industry-wide standard for secure communications on the Internet.

- **Blowfish**

One of the fastest cryptographic algorithms available, Blowfish minimizes the performance impact of encryption.

SourceAnywhere for VSS provides 128-bit data encryption to protect passwords and data files as they are transferred across the Internet. SourceAnywhere for VSS supports both Blowfish encryption - one of the fastest encryption algorithms available - and the industry-standard SSL encryption.

SourceAnywhere for VSS also offers a flexible approach to password policies, enabling a granular approach to password memory, complexity and expiration. SourceAnywhere for VSS also provides a User Lockout mechanism, which can effectively prevent attackers from guessing user's password through network.

Additionally, because of the client/server approach, the VSS database folder is only exposed to the SourceAnywhere for VSS server.

- **Flexibility – Remote Source Control to Suit Your Needs**

Developers should be able to choose the tools and operating systems they prefer, not be restricted by a particular platform. In addition to SourceAnywhere for VSS's Windows client, there is a Java client that enables developers to access VSS repositories from Linux, Solaris, Apple, HP-UX, SCO Unix, FreeBSD or any operation system that supports the J2SE Java runtime environment.

SourceAnywhere for VSS works with popular development environments, including Microsoft Visual Studio 6.0, Visual Studio .NET, Eclipse, Macromedia Dreamweaver, IBM Rational Rapid Developer and Borland Delphi 8.0. SourceAnywhere for VSS can integrate with any IDE that supports the Microsoft Source Code Control Interface (MSSCCI).

## ❖ **SourceAnywhere for VSS Features**

As an extension to Visual SourceSafe, SourceAnywhere for VSS has been designed to emulate that product's functionality. SourceAnywhere for VSS's core features include:

## High Performance Remote Access

Over the Web, SourceAnywhere for VSS is more than 100 times faster than Visual SourceSafe Explorer. Assets are compressed before transfer, reducing the amount of time and bandwidth required to check code in and out of the repository.

## Client-Server Architecture with Caching

Remote computers communicate with the code repository over any standard TCP/IP connection, including an Ethernet connection on the same LAN as the server. SourceAnywhere for VSS does not require Windows Remote Access Service (RAS), which eliminates the sluggish performance often associated with this service. As discussed above, SourceAnywhere for VSS's cache server radically improves performance when there are multiple developers in the same remote location.

## Secure Distributed Development Environment

SourceAnywhere for VSS offers 128-bit data encryption to protect passwords and data files as they are transferred across the Internet. In addition to robust password policy management, SourceAnywhere for VSS supports both the industry-standard SSL encryption and Blowfish encryption.

In addition to supporting all TCP/IP connections (PPP, ISDN, ADSL, and so forth), SourceAnywhere for VSS also supports SOCKS 4, SOCKS 5 and HTTP proxy.

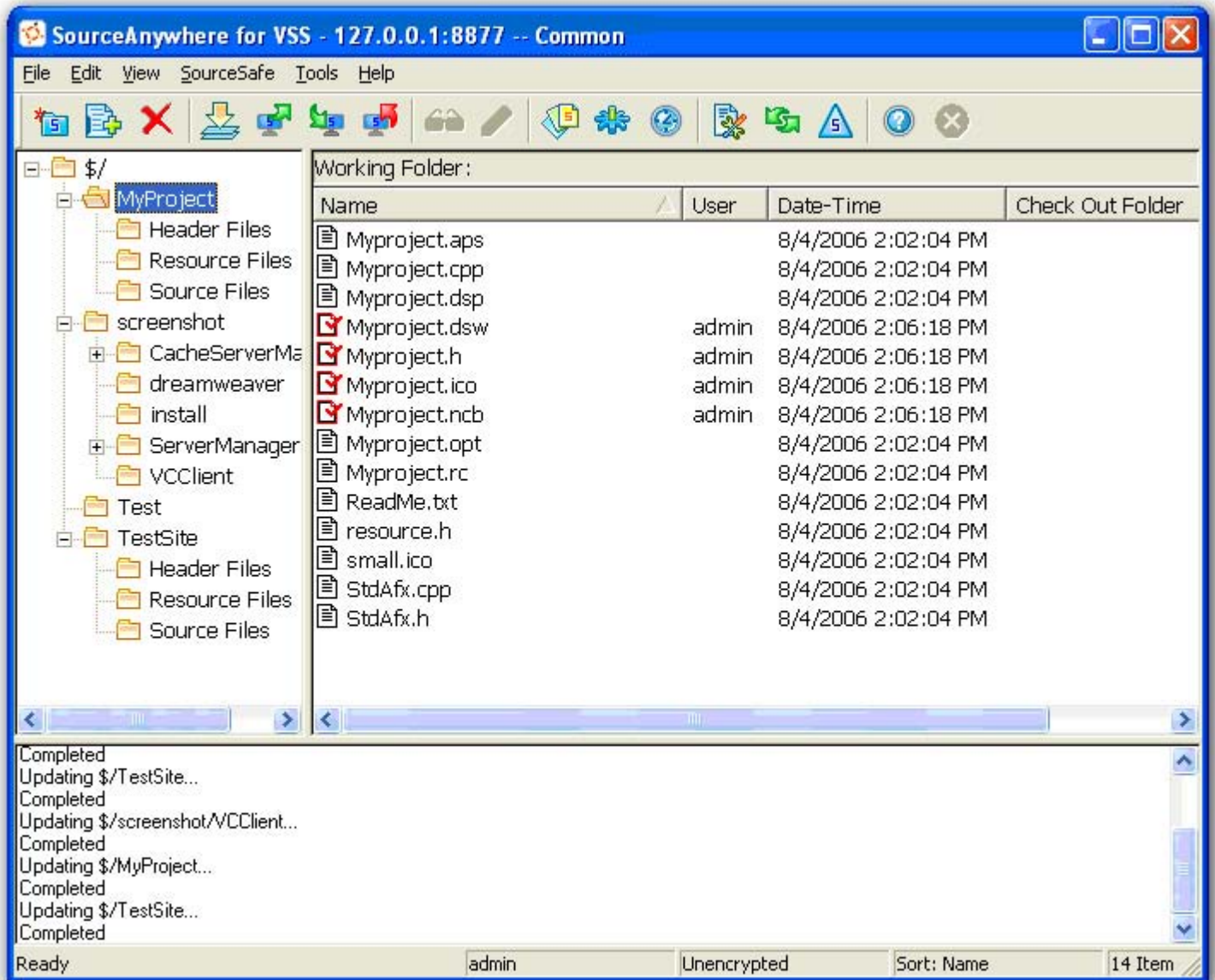
## Time Zone Management

SourceAnywhere for VSS is an add-on to Visual SourceSafe, and as such builds upon the feature set of Microsoft's product. When working with developers in remote locales, one important consideration in source control software is time difference. Without a well-designed solution, it's easy to imagine how developers in differing time zones could easily confuse different versions of a particular asset.

SourceAnywhere for VSS takes time zone management out of the heads of the developers. Whenever a user checks in a file, the 'modification time' associated with that file is adjusted to the local time of SourceAnywhere for VSS Server. And when a user gets or checks out a file, the modification time of the file is adjusted to the local time of the user. Users are never confused, and the builds can always be compiled from the latest file versions, wherever on Earth they were last modified.

## SourceSafe Similarities

SourceAnywhere for VSS's user interface is designed to resemble SourceSafe. This makes it easier for developers to integrate the SourceAnywhere for VSS workflow. SourceAnywhere for VSS supports nearly all of SourceSafe's local operations. Because it was built in C++, SourceAnywhere for VSS doesn't require any additional components or frameworks to run.



*The SourceAnywhere for VSS client closely resembles Visual SourceSafe's user interface.*

## SDKs

SourceAnywhere for VSS provides both Java and COM SDKs, enabling developers to build their own SourceSafe remote access solutions on any platform.

## ❖ Conclusion

Extending access to source code beyond the LAN can be a risky proposition. However, with so many organizations moving to a distributed development model, remote access to source control has become a necessity. SourceAnywhere for VSS provides a fast, reliable and secure solution that answers all of the demands of a global software engineering team. With SourceAnywhere for VSS, you can spread your developers across the globe and be confident that your SourceSafe repository is always accessible and safe.

## ❖ About Dynamsoft

Every year, thousands of customers turn to Dynamsoft Corporation for world leading version control and issue tracking technologies. At the core of these technologies, are well thought out and properly executed products that align to today's development needs while offering dramatic improvements in development flexibility, speed, reliability and security. This in turn, helps development teams build better quality products on time.

For more information about SourceAnywhere for VSS and Dynamsoft's other products, visit [www.dynamsoft.com](http://www.dynamsoft.com).

# Dynamsoft™

The leading developer of version control and issue tracking software

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