



**Digital Security Systems**



**JDS Digital Security Systems**

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## Introduction

**Softsite 4 is the next generation** of IP based NVR software management platforms. It is built to run on dedicated PCs recording any number of IP based video cameras. Its unique design allows for a client-server configuration for scalability as well as a standalone configuration for smaller environments. The core implements technology developed by JDS for commercial aircraft network systems; Events are communicated between modules in real-time, ensuring reliable streaming, total operator situational awareness, and complete failover autonomy. Remote capabilities include management of all functions with immediate update. Systems remain running while configurations are modified. Database-less archive design leverages low cost storage devices and allows for virtually unlimited recording capability.

## Instant Setup

**Softsite 4 is an installer's dream.** It has been designed to automatically find all devices on the network and retrieve necessary settings as well as build a simple database of supported active devices. Initial setup can configure scores of cameras in a matter of minutes. Changed configurations can generate administrator alerts and log modified environments.

## Real-time Messaging

**Softsite 4 is system aware.** All streaming modules, clients and System Controllers communicate with each other in real-time. Camera FPS, Node FPS, NVR FPS and aggregate FPS are reported to the System Controllers constantly. Not only are failures reported as they happen, but *degradation of performance* is also a reportable alert. For the first time, administrators can be alerted to a network overload or other non hard failure that could impact recording quality or quantity.

## Absolute Reliability

**Softsite 4 can reroute traffic.** Nodes are started as services without any configuration data. What will stream on any given node and how it will behave is sent as IP messages by the System Controller. Upon a Node failure, the System Controller will send the traffic to an idle node, other production nodes or a combination of both. Load sensing and load balancing are a fundamental function. NAS storage failures or shutdowns will cause the host node to 'cascade' the pending frame of video to be written to an alternative NAS device. There is no practical limit to the number of NAS devices that can be listed in the cascade list for each camera feed. System Controllers can be cascaded by backup units for extended reliability.

## Refined Design

**Softsite 4 uses the least CPU** of any comparable NVR product. The engine design has been refined over 10 years of heavy use in most every major application environment. High frame rates, multi-megapixel video streams and low compression video are easily processed on 'off-the-shelf' PC hardware platforms. A typical JDS installation can achieve the same performance as competing systems using twice the computational horsepower.

## Eliminating the Weak Link

**Softsite 4 uses no archive database.** JDS has pioneered and patented direct-to-disk functionality for NVR recording systems back in 2001. This design has no down side; it eliminates the need for a structured database, database engine, SQL language and all of the utilities, functions and load required to maintain a database design. Softsite 4 writes directly to the disk array system with a clever archive naming scheme. By building a dynamic directory tree for each camera based on Camera / Year / Month, unlimited storage capacity can be achieved by simply stacking low cost NAS storage units. Date / time searches are the fastest in the industry since the data is self arranged based on time. Successive frames are written after prior frames... the data is thereby **self-sorted**. Disk systems no longer need to be 'aggregated' by a controller to allow a large database to span multiple volumes. In fact, the larger the disk storage requirements, the more substantial the savings of JDS's solution over any database based system. While competing systems struggle with finite frame counts of 600,000 per day (less than 1/3 of a day recorded at 30 FPS), JDS can record to a limitless list of storage units located on the network... or locally. This equates to more recording capacity than can be desired in trillions of lifetimes.

## Versatile Functionality

**Softsite 4 can function with multiple behaviors.** NVR recording is the fundamental function built into the core. Additional functions allow turnkey hosting solutions for video streaming and broadcasting, video buffering for multiple clients, and even trans-coding capability. Other functions include alarm serving and alert processing for JDS Command Center Video Wall products. JDS implements custom Analytical functions

## Secure your Investment

**Softsite 4 is compatible with legacy JDS products.** Video recorded by Softsite32 Enterprise as well as most utilities are compatible with Softsite 4 archives. This allows existing environments to migrate to our advanced platform with minimal system impact.

## Support for the Future

**Softsite 4 supports all popular camera video formats.** MJPEG, MPEG4, H.264 and even JPEG 2000 are built into a single, unified interface. JDS has spent significant engineering efforts in the utilization of industry leading format decoders / encoders. This enables JDS to port Softsite 4 to Linux and MAC platforms in the near future. API functions allow simple commands to be sent securely to the system to automate and integrate functions into legacy systems.

## Customizable

**Softsite 4 is designed to be extensible.** We have DLLs, ActiveX controls, Java Script and custom tools to build beyond the standard offering. We are ready to implement your features that are most important to your specific application.

**Softsite 4 is designed as a complementary offering to Softsite32 Enterprise.**