

# WHITEPAPER

## STRATUS

### The Next Step in Collaborative Workflows

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As user requirements and processes are evolving in media production, a software-based solution is needed that matches the changing ways professionals are creating content today, along with the flexibility to encompass new possibilities tomorrow.

STRATUS™ is a suite of easy-to-use video production and content management tools, housed in a single application framework. These tools enable a wide range of production tasks for a variety of production environments.

# Introduction

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As media companies migrate to complex file-based workflows and multichannel digital content delivery platforms, the need for IT-centric technologies that can handle large amounts of data accessed by hundreds of collaborative users has become critical to staying competitive. The current (and ongoing) industry consolidation has led to remote production projects and the need to serve content to viewers whenever they are, whenever they want it.

A targeted response to create new solutions is the incorporation of a scalable service-oriented architecture (SOA) that tailors individual users to specific tasks while also providing a clear view over the entire enterprise, if required.

Current SOA implementations use web services that rely on XML for its message format, and usually take advantage of other Application Layer protocols, such as HTTP. Grass Valley™ has chosen the RESTful-over-HTTP SOA approach, due to its simplicity and reduced processing requirements.

This approach allows an interface to compose simple messages such as a URL to an object that also includes a command regarding what to do with the object (i.e., “what services are available to me with what options?” or “what metadata are associated to that asset?”).

## Re-Thinking Workflow Efficiency

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Taking the SOA concept a step further and making it applicable to anyone in the media and entertainment industry, Grass Valley has introduced a comprehensively integrated modular software platform called STRATUS. It has been designed to support every part of the content creation and distribution lifecycle through a common graphical user interface.

Basically, STRATUS takes advantage of all that a carefully designed SOA has to offer—in terms of ease of integration as well as flexibility and adaptability. It focuses on the needs of media production operations that are struggling with having to make more content available, faster, and on more platforms than ever before.

STRATUS is also built using the Scrum Agile Development process. This gives development teams the ability to monitor progress almost on a daily basis for each component and stay on top of impending technology problems. They are able to solve challenges associated with launching new services, and react quickly to new feature requirements arising in the market. This open framework also brings the flexibility to change priorities without losing months of software development effort.

STRATUS has been designed to help entertainment, news, and all other types of production and program providers streamline their processes by making specific tasks fast and easy to perform by virtually any pre-authorized member of the staff.

With STRATUS, users can start to tackle more production tasks without having to involve a lot of unnecessary expense or tools that don't quite fit the job at hand. Because the application functions take the form of plug-ins, a media production organization can choose the specific tools each end user has available to efficiently perform any task in the end-to-end workflow, all within the context of a single application interface.

STRATUS defines a single desktop application space, adaptable to users based on assigned user roles and permissions. In order to configure a desktop, a user simply selects a set of tools for the task at hand. STRATUS even allows a user to create a specific toolset and send it to another user along with the media objects on which the tools will work.

This allows staff members to reconfigure and build their own work space, no matter what job they are doing at that time. They can also save those attributes so that when they come back to the system—no matter where they are logging in from—they will see that familiar screen with the tools they have requested.

# STRATUS: A Next-Generation SOA

This next-generation SOA includes the STRATUS Application Framework: the STRATUS Core Services and the K2 Infrastructure. The Grass Valley K2 Summit™ media server family forms the foundation upon which all of the assets, tools, and web-based services are searched, located, retrieved, and then published on schedule.

The Grass Valley STRATUS Core Services provide a consistent interface for asset management and device control between the extremely configurable user workspaces and standalone Grass Valley K2 Summit or K2 Solo™ servers, or a K2 storage area network (SAN) based on a combination of K2 servers. Grass Valley has

initially made the new software tools available for the Windows OS-based platform and will continue to add new features (and an operating system agnostic web client) in the future.

For users, this means they can grow the platform and add new functionality, as their business requires, without the need for replacing expensive hardware boxes or complicated system upgrades. That makes it dramatically less expensive and easier to deploy and upgrade. The STRATUS framework can be easily deployed alongside an enterprise asset management system, or integrated with it through a published and well-supported SDK.

## Job-Specific Access and Maximizing Resources

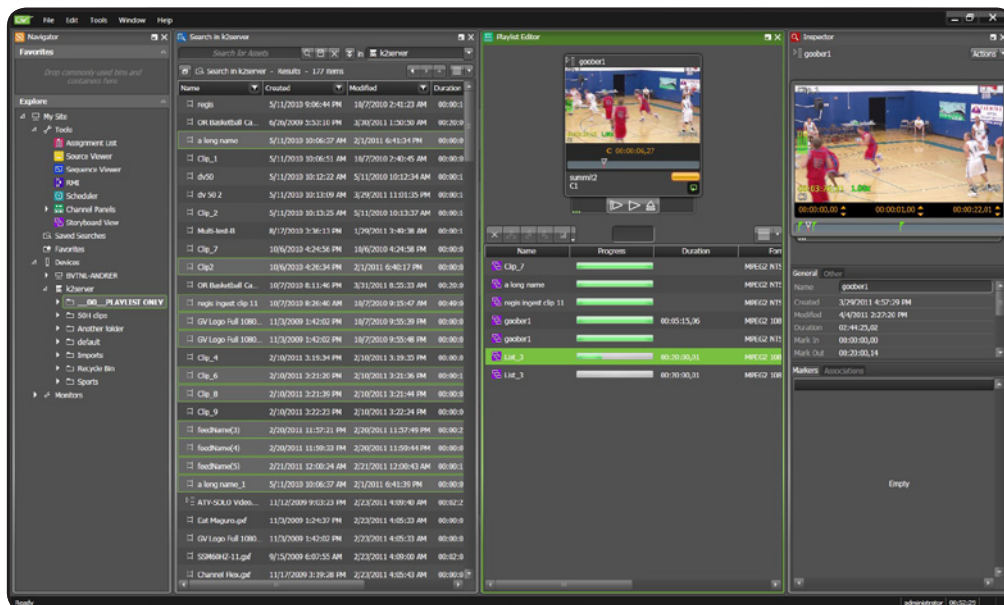
Unlike a typical asset management solution, the Grass Valley STRATUS architecture provides individual tools to perform various job-specific tasks. However it can also be employed to organize staff and efficiently allocate resources by providing secure access to content in a variety of IT-centric ways.

Media for a particular news segment, entertainment program, or other project is saved within a specific folder that can be accessed and worked on by anyone with the proper authorization. So a journalist at a TV station would have access to the media clips as well as a series of software tools to preview and edit a clip and then send it to the playout server directly. This saves time and effort while enabling an “administrator” to organize staff members and allow them to perform tasks they typically would not—due to logistics, availability, or other operational reasons.

Multiple users on a network can also make notes on specific clips and have those notes reside with that clip wherever it goes within the organization.

STRATUS initially will track assets stored on K2 media servers, but Grass Valley plans to add a number of third-party plug-ins, devices, and assets that can be tracked and integrated into the STRATUS platform as time goes on. STRATUS is innately compatible with all MOS-compatible newsroom computer systems and, via its SDK, with asset management software platforms.

Grass Valley will license three basic bundles of tools from the Express, Pro, and Elite bundles, but what gets installed on each desktop is the same piece of code—only the license and what role is defined will limit the user.



# Case Studies

The flexibility of the STRATUS framework allows it to scale to, adapt to, and benefit all types of media content creation and distribution workflows as required.

In all workflows involving a server (news, playout, promotions, etc.) there are always FOUR basic components of a solution:

1. Getting content into the system
2. Modifying content to create finished content
3. Publishing content (play-to-air, web, mobile, etc.)
4. Managing content on the system

STRATUS is a set of production tools that sits on top of the K2 server and storage infrastructure and helps teams of people perform these basic elements to complete their workflow. The unique part of STRATUS is how it provides all the tools in a modular way.

## Application: News

Here are the tools that STRATUS provides today:

### 1. Ingest

- Feed scheduler for periodic recording
- Instant record
- Removable media import (RMI)
- File import

### 2. Editing and Graphics Creation

- Media Inspector tool that can trim, sub-clip, and log any content
- Storyboard Editor for journalists and producers with direct-to-air or pre-edit capability
- EDIUS®, Final Cut Pro 7, or Avid editing can finish the pre-edit from the storyboard

### 3. Playout

- Rundown-controlled (newsroom computer system) playout
- Manual playout with a free K2 channel

### 4. Asset Management

- Search, browse, trim, and delete tools
- Log by clip or to a specific timecode (marks and keywords)
- Archive and restore tools

The system designers can customize the permissions of each user in a STRATUS system to perform one or more of all these tasks that are typically found in a newsroom by making an assembly of all these tools. They can easily consolidate roles in small organizations or scale them up to large teams where the tasks are finely divided. STRATUS is installed everywhere they need someone on the team to participate in the workflow. Then they can define what tools each employee will have access to within the STRATUS application.



## Application: Entertainment

While the creation of entertainment programs in a studio or on location might follow a different workflow, many of the basic tools within STRATUS would be the same, except for a few extra tools or extension to existing tools depending on the application at hand.

Taking the talk show format as an example:

### 1. Ingest

- Manual gang-record of 10 ISOs, one line-cut, and a 9-way (multiviewer output)
- Removable media import (RMI)
- File import

### 2. Editing and Post Production

- Media Inspector tool that can trim, sub-clip, and log any content
- Storyboard Editor for producers to assemble a set of shots for each scene
- Final Cut Pro 7 editing that can finish the pre-edit

### 3. Broadcast/Playout

- Third-party application that can support live-production playout
- K2 Dyno™ Replay System for live replay of any ISOs
- Simple playlist playout from K2 Dyno or from a STRATUS Desktop application to feed into the live production
- Manual playout with a free K2 channel to backhaul to the distribution point

### 4. Asset Management/Archiving

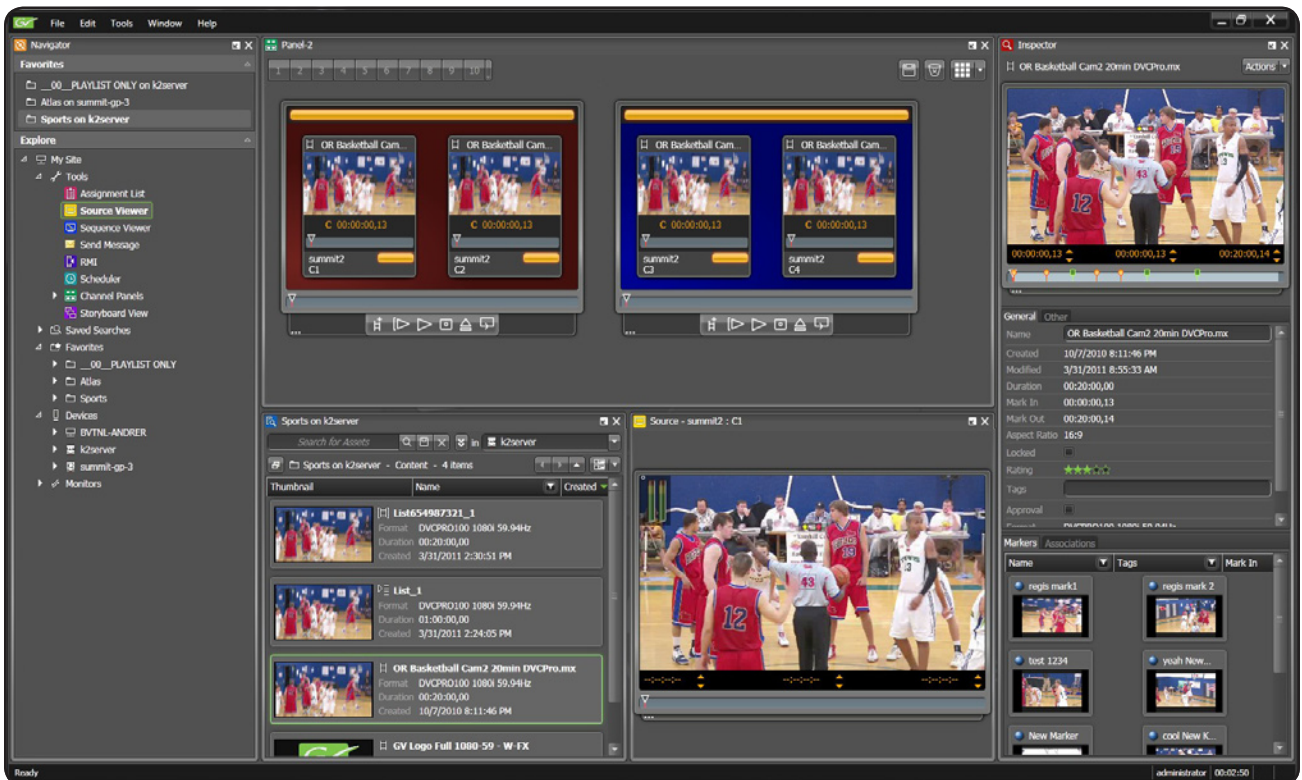
- Search, browse, trim, and delete tools
- Log by clip or to a specific timecode (marks and keywords)
- Archive and restore tools (coming later this year)



# Conclusion

The STRATUS framework is the next step in the continuing evolution of Grass Valley software for the entertainment, studio, and news markets. It is designed for simplicity—it is simple to install, simple to configure, simple to learn, simple to use, and simple to upgrade.

STRATUS represents a media-centric architecture that provides a high-performance and customizable user experience as well as an adaptable and easily expandable foundation for existing and new applications and workflows, both now and in the future.



## GLOBAL SERVICES



Grass Valley Global Services specializes in the defining of, deployment of, and support of today's dynamic file-based workflows, based on Grass Valley and third-party solutions. With Grass Valley Global Services, you can achieve your operational goals in the most efficient and cost-effective way possible with a partner you can trust.

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