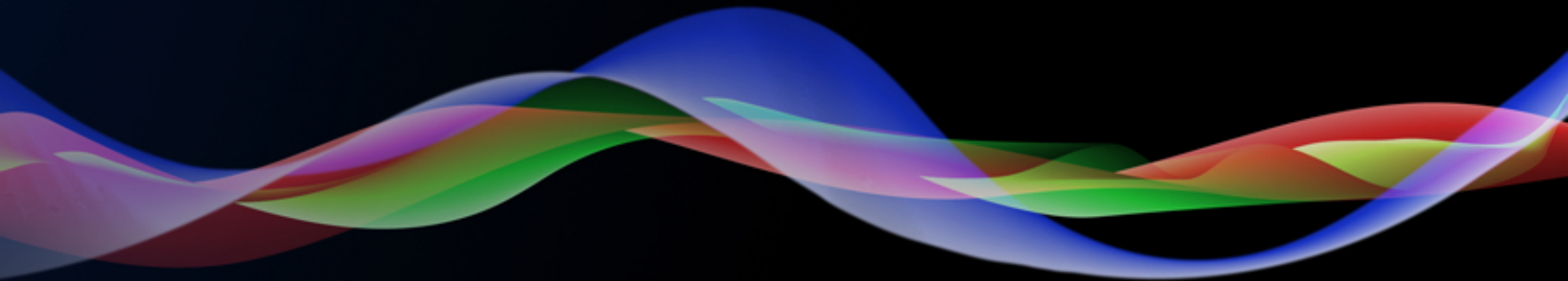# Virtual Studio Manager

" ... and one to control them all. "

Romain Theriault
General Maintenance Technician
CBC-Radio, Montreal, Canada

"… you have opened my mind! "

to save time?

to save money?

to increase productivity?

could it really be this simple?

to integrate everything?

to control it all?

mobile production

Christoph Moll
Senior Production Engineer

" For years, TVN has been relying and trusting the VSM, which now is been used unconditionally in all our mobile production units and studios.

With the Virtual Studio Manager we were able to tailor a precise signal flow control which lives up to our own high expectations and requirements.

The result is that operating our OB-Trucks is effective and fun for customers, slomo, highlight, vision and VTR operators alike. "

TVN-Ü4HD, Germany

broadcasting centers

DR-Byen Mediahouse, København, Denmark

" The VSM is being used to control all Audio, Video and Control routers at our new DR-Byen media house in Denmark.

All in all, about 40 million cross points are under control via interfaces to 200 physical control panels, 50 screen based control panels, 100 interfaces to mixing consoles and other devices. Tally and Under Monitor Displays are also fully incorporated.

The mix between physical and logical control allows for flexible and intelligent solutions to be realised.

Thus we have been able to create complex interactive work flows which allows for the Program personnel, Program Continuity personnel and Master Control personnel to work together seamlessly. "

Daniel Van Kranendonk
Systems Engineering

worldwide

Michael Brittain
Technical Engineer

" After having used VSM for 6 months in our first High Definition outside broadcast unit, there was no doubt in specifing VSM for our next three High Definition outside broadcast units being constructed over the next year. "

HD-1, On Site Broadcasting, New Zealand

" ... and one to control them all. "

Anthony Teunen
Technical Manager

"The thing that attracted us technicians at Alfacam to the VSM system was the philosophy of "one system to control them all".

This means we do not need to create one file for the router control, another for the Audio router and again another for the Tally system. Most protocols were already supported and the ones that were not were implemented upon our request. The complete infrastructure over IP is also a great bonus, as now we can move panels from one end of the room to another, by simply plugging into a different port with no reconfiguring required.

Online configuration changes and the possibility to add a dummy router to a personal computer on which you can test if your plan will work in the comfort of your own office or home are other extremely handy features. Another strong point is the willingness to make custom hardware, such as special mountings for UMDs, special sized panels and panels with integrated LCD panels.

I would have no doubt in implementing the VSM system in any future projects. "

Anthony Teunen
Technical Manager at Alfacam and conceptual designer of Alfacam OB vans
28,29,30,31,32,33,34,35,36,37 and the Alfacam flightpack, all running vsmStudio.

Router Control

unlimited amount of layers/routers
unlimited signal sources and targets
support for virtually all common routers and other similar devices
ever increasing amount of supported protocols, current over 100
possibility to control and to be controlled by 3rd party systems

fully integrated, transparent and automatic Tie-Line management

Tie-Lines

manages the connections between multiple router

performs all necessary switching transparently for the user

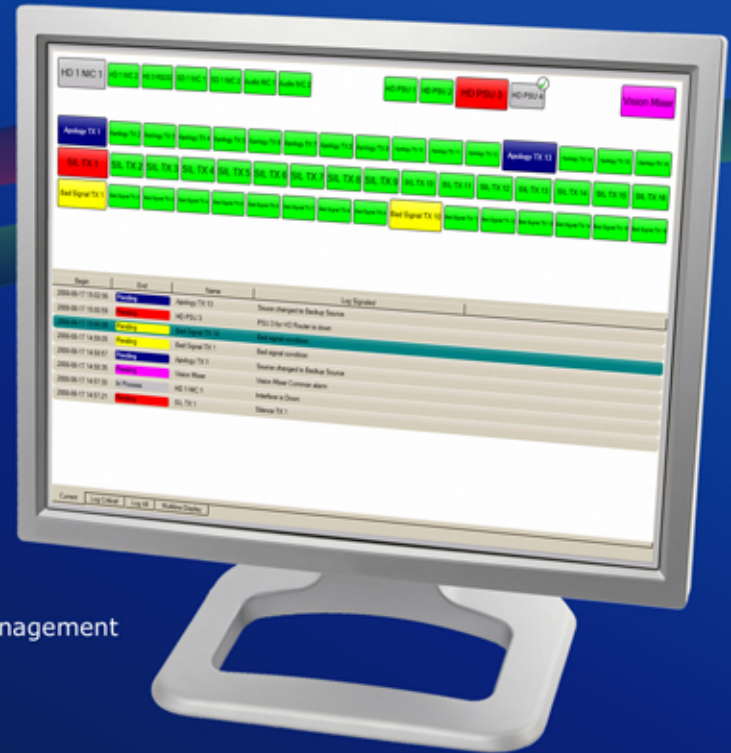monitors usage and automatically reuses free Tie-Lines

Tally and Labeling is automatically updated
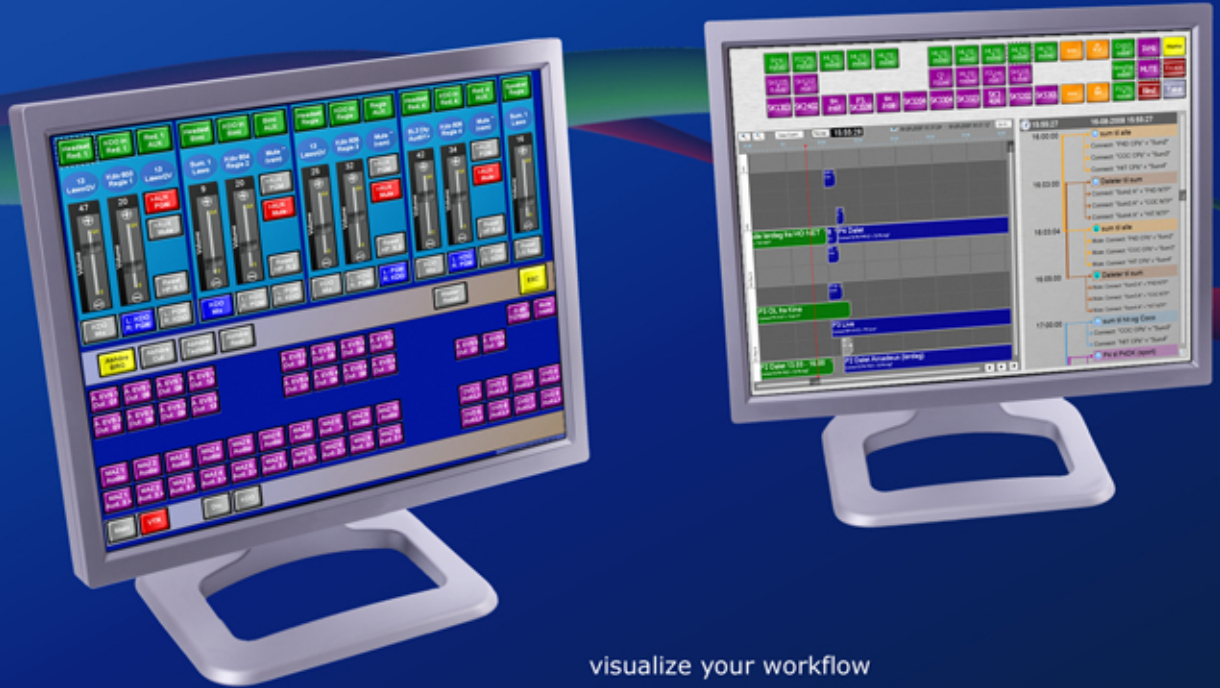
Automation & Scheduling

easy and intuitive user interface
different views and elements
freely combinable with other panel functions
scheduled events may control signals, GPIs, gadgets, timers...
comprehensive logging and export
import of traffic files

Alarms & Monitoring

every event in the system can trigger an alarm
alarm view with filter functions
export to file
every alarm can trigger an event
various text fields for comments and escalation management

vsmPanel & Hardware Panels

visualize your workflow
freely configurable panels
many different types and sizes of physical panels
wide range of functions and unlimited styles

" ... and you control it all. "

comprehensive redundancy

two or more servers running in parallel
instant switchover
load balancing
always synchronized
no downtime when updating configurations
online software updates possible

network based infrastructure

full Layer 2 and Layer 3 support
static and/or DHCP addressing

Network Backbone

··· | Modular Equipment | Multi Viewer | ··· | Video Router | Audio Router | ··· | Video Mixers | Audio Consoles | ···

Gadgets & GPIs

" The GP-I/O and Gadget Control of the VSM allows a unique access to important parts
of our production environment. With the VSM we can access, configure and control
them in an absolutely user friendly way. For TVN this tool has become indispensable
and we would not want to miss it at any production. " (Christoph Moll, TVN)

endless possibilities
integration of both GPIs and parametric control

e.g. control of room lighting from any panel
e.g. control of UPS
e.g. alarm monitoring
e.g. CCU/OCP/RCP
e.g. Tally and Audio-follows-Video
e.g. DSPs and other Modular Equipment

Tally

The VSM's fully integrated Tally management requires no extra configuration and reflects any changes to the signal flow instantly while allowing for full flexibility when required. The operator can concentrate on the specific needs of a production without having to double check and synchronize multiple systems.

Kamera 1   Kamera 2   Kamera 3

TVN GROUP

The flexibility of the VSM makes Tally not only interesting for the camera operators. The simple press of a button, which is also freely configurable, can do the assignment and selection of red, green and yellow Tally to individual production control rooms and their UMDs.

Audio-follows-Video events can also be easily derived from Tally for the use with audio consoles.

Thanks!

we would like to thank all vsmUsers for the confidence they have placed in us over the past years.

AKK, Germany
Al Jazeera, Katar
Alfacam, Belgium
ART, Saudi Arabia
Bayerischer Rundfunk, Germany
BCE Luxembourg, Luxembourg
BELRTL, Belgium
BetaMobil, Germany
BMW-World, Germany
CBC, Canada
Cinevideo Group, Netherland
Czech TV, Czech
DB Videohouse, Netherland
Deutsche Telekom AG, Germany
Digi TV, Germany
DR Byen, Denmark
DRS, Switzerland
FOM Ltd., United Kingdom
France 2, France
France 3, France
Global TV, Australia
HBS, Switzerland

HD-Resources, Sweden
HD-Signs, Germany
Hunan TV, China
Jemen TV, Jemen
Medienkontor, Germany
N24, Germany
NDR, Germany
NOB Köln, Germany
NOB, Netherland
Nova TV, Bulgaria
n-tv, Germany
OSB.nz, New Zealand
Outside Broadcast, Belgium
Prisma, Sweden
proSieben Sat1, Germany
Radio France, France
Radio Riyadh, Saudi Arabia
RBB, Germany
Red Bull, Austria
Rogall TV, Germany
RPI New York, USA
RTL Brussels, Belgium

RTL Paris, France
SABC, South Africa
Salzburg TV, Austria
SRG, Switzerland
Studio Marx Media, Austria
TechiColor, Canada
TrioFilm, Germany
T-System, Germany
Turner Studios, USA
TV Skyline, Germany
TV2, Denmark
TV4, Sweden
TVN, Germany
TV-Unit, Germany
UBF, Netherland
Videohouse, Belgium
Visual, France
VIVA Köln, Germany
VRT, Belgium
WIGE AG, Germany
ZDF, Germany
...

also, a special thanks to all those that have given their time, input and pictures to this brochure!

vsmHistory
by Wilfried Luff

late '80s	During my work as a system design engineer, I was confronted with a very well known problem: why is it so frustrating to bring systems from different and sometimes even from the same manufacturer together? So we started thinking about how to make life easier for system engineers.
early '90s	The first embedded solutions were made, e.g. protocol converters, for several German broadcasting stations.
1993	The first generic control system for an OB-Van/mobile truck was delivered: A MS-DOS based, completely programmed in assembler, product named "KC1500". The idea of the virtual matrix, where all inputs and outputs were gathered together was born.
1995	The editor for the KC1500 was created, the so called "vmConfig" which ran on Windows NT.
1996	Together the vmConfig and the KC1500 were awarded an innovation prize.
1996-2002	The vmConfig more and more became the active part and changed from an editor to the controller software. Functions like "virtual signals" and "pseudo devices" were developed and implemented.
2003	The company changes but the core artificers remain… and from this time on we start to focus on the VSM as a product.
2005	The vsmStudio is established. The application now is running in a vsmServer cluster and the complete system is TCP/IP based.
2006-2008	First large scale, nationwide installations, controlling routers and more, are installed in Germany, Denmark, Canada, South Africa, Belgium,…

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