JUPITER

Control Systems

BROADCAST SOLUTIONS

THOMSON MULTIMEDIA

Jupiter Control System

keeping you in total control

As signal distribution grows in size and complexity, the task of managing such a system increases significantly. Jupiter Control System from Thomson provides the right solutions to keep you in total control.

Jupiter Control System

Jupiter Control System from Thomson is the ideal solution to keep your signal distribution operations running smoothly. It brings intelligence to your facility by providing a user friendly control environment to manage even the largest and most complex systems.

Jupiter is a flexible and expandable distributed control architecture that grows as you do. It's a plant-wide solution that offers router and VTR control, integration and interfacing with master control and production switchers, supports multiple automation control software, and more. Jupiter is designed to serve a variety of applications from small copy facilities to very large video origination centers and production facilities.

Jupiter Architecture

The Jupiter system is assembled from three families of building blocks for maximum flexibility:
(1) control software modules,
(2) control panels, and
(3) control electronics.

Control Software Modules

Jupiter offers two control software options: JupiterLE and JupiterPlus. JupiterLE provides a comprehensive, modular, and flexible system for controlling and configuring routing switcher I/Os. JupiterPlus builds on that foundation but adds additional capabilities such as machine/device control, path-finding, third-party router interfaces, master control interface, and more.

Control Panels

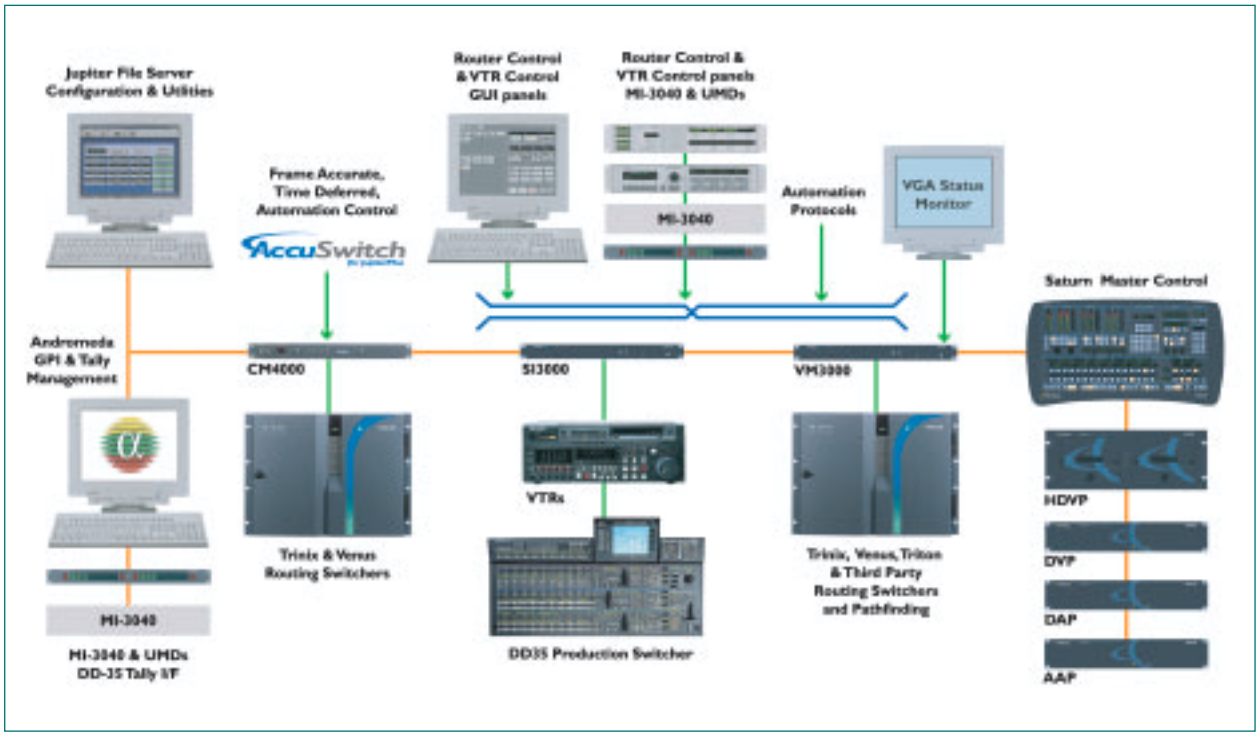
Jupiter offers a family of flexible hardware and software control panels ranging from single bus controllers and VTR remote panels, to full featured multi-level menu-based panels. Jupiter offers a broad range of powerful panels that are engineered to suit the specific needs of most applications.

Control Electronics

Jupiter control electronics modules offer more serial control ports in less rack space than conventional systems. Based on an industry-standard ThinNet backbone, Jupiter can extend to connect more control electronics modules into the system offering virtually unlimited expansion possibilities. Each pair of ports has its own identity. The Jupiter file server acts as the configuration master to instruct these ports to communicate with different video products. The number and types of interface protocols are defined by the type of Jupiter control software product selected.

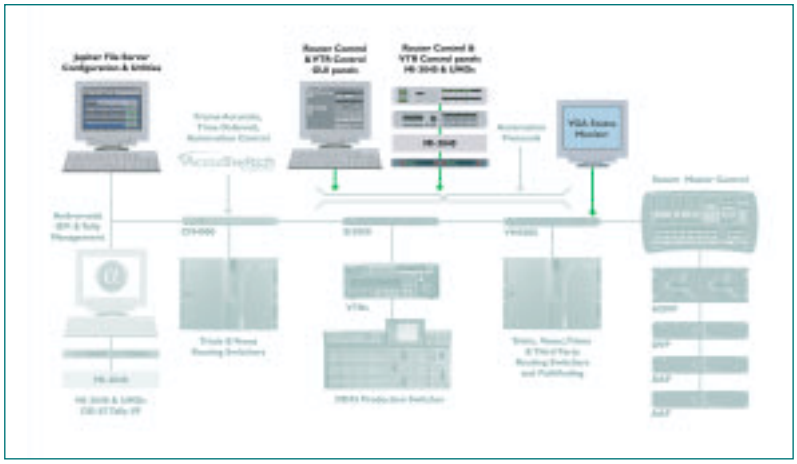
Complete Control

The Jupiter Control System is designed to accommodate most configurations needed for broadcast, production, post-production, and master control applications. The diagram below shows an example of a complete Jupiter Control system which consists of three main control levels: user interface, control intelligence layer/advanced signal management, and devices. In addition Jupiter interfaces with automation, master control, and production switchers to offer a total facility-wide control solution.



An example of a complete JupiterPlus Control System

User Interface Control



User Interface

The Jupiter user interface level consists of a wide variety of control panels and software solutions that can be combined together to create feature-rich control environments.

Operating Interface

The Jupiter Control System operator interface is easy to use and understand. It is a flexible environment where features can be configured to meet individual operator specifications.

- **Versatility**. More than 20 different hardware panels, plus seven GUI software panels for control of routers and VTRs. Some hardware panels can be combined to increase the number of sources and destinations, or features.

- **VGA Display**. Both the VM-3000 and the CM-4000 control electronics modules provide VGA output offering a great deal of monitoring flexibility. The VGA output displays status of router output/input, machine control and delegation, system control and time, and Tie Line use.

- **Operator Utilities** from the Jupiter File Server include:
  - The Save/Restore utility allows operators to save and recall full or partial router cross point settings.
  - Mnemonics and button assignments can be changed dynamically through the Input/Output editor.
  - Saturn Monitor Follow and Preview enables operators to reconfigure monitor walls in master control.
  - Router outputs can be unlocked or unprotected through *Force Unlock*.

Engineer Interface

Jupiter Control's engineer interface allows technicians to input and retrieve information and configuration status from a variety of utilities. This not only saves time, but also helps to prevent errors. Some of the features include:

- **Configuration Tool** (enhanced with Jupiter 6.2) offers:
  - Automatic entry of required fields, automatic update of related data, and drop-down menus
  - *Quick Edit* for fill down, fill right, increment down, and increment right to automate the data entry process.
  - *Quick Find* locates a specific entry in an open table.
  - Advanced help utilities that include *Implicit Help*, *Validation On Open*, *Immediate Error Identification*, *Validate All Tables*, and *Tooltip Help*.

- **Control Center Utility** allows loading of new releases, configuration sets, and embedded diagnostic tools.

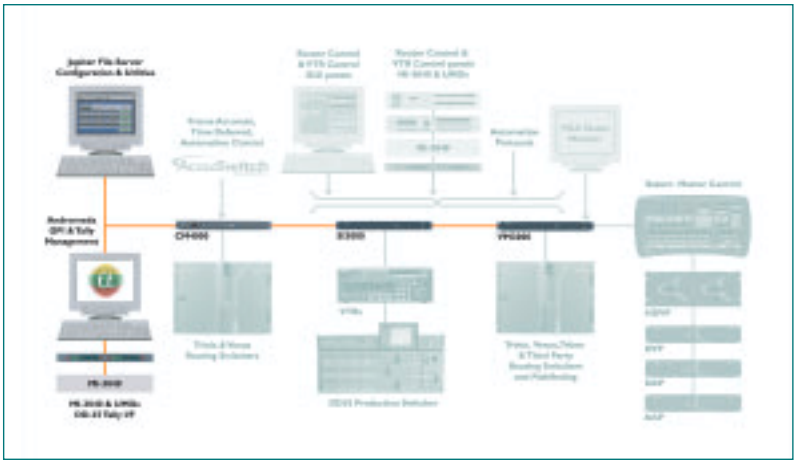
- **Logging Utility** enables online and off line spying.

- **Router Control Utility** emulates any router control panel in the system.

- **Board Status** provides at-a-glance checking of overall control board status.

- **Physical Re-mapping Utility** allows immediate re-mapping of defective physical input or output without disturbing operations.

Advanced Signal Management



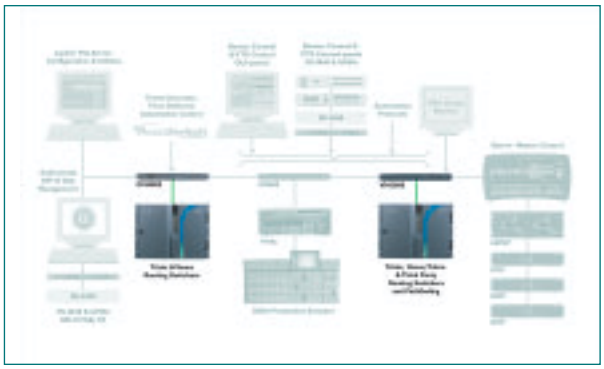
Advanced Signal Management

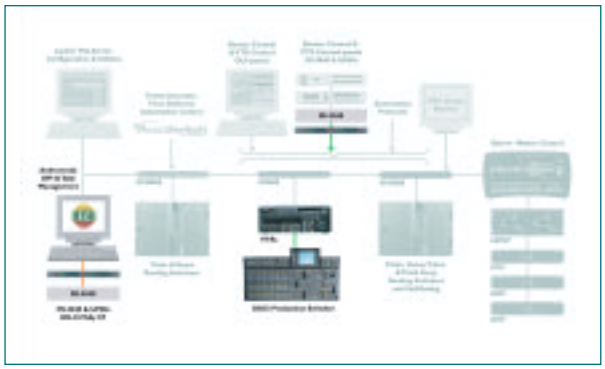
Your facility needs an intelligent system with control features that are easy to operate. Jupiter Advanced Signal Management provides a variety of intelligent solutions.

- **Path Finding** manages intelligent Tie Lines (router interconnections) that simplify your operation.
- **Logical Level Mapping** enables easy logical division of your physical router levels into sizes that fit your needs. For instance change a 32 x 32 analog video router into an 11 x 5 router plus a 7 x 9 YUV router.
- **Audio Modes** allows you to assign left, right, or mix (L+R) of a stereo pair to left or right router output for both analog and AES audio routers.
- **Sticky Operating Modes** saves a lot of key presses. When enabled, it allows "sticking" the selection of multiple outputs, router levels for breakaway switching, or even audio mode choices.
- **Sequences** are predefined or live created lists of switches that can be triggered at once. It is useful, for example, when you want to quickly reconfigure a monitor wall.
- **Security** password-based panel logging allows access to different destinations based upon destination and logging, and panel hierarchy. Lock and protect features secure destination "ownership".
- **Redundancy** provides a high degree of reliability when uninterrupted router control is critical.
- **Andromeda** is a PC-based software working on the Jupiter LAN that considerably extends Jupiter functionalities in the following areas: tally management, GPI I/O management, advanced label management, and Proset (production studio setup).

Jupiter Control System offers intelligent advanced signal management tools to simplify your operation and to keep your facility running in optimum condition.

Router & Device Control





Router Control

Jupiter easily controls all Thomson and many third party routing switchers. Jupiter's VM-3000 and CM-4000 control electronics modules offer the well-know *Crosspoint Bus* interface which works seamlessly with Trinix and Venus routers. Control of Triton routers (and third party routers) is through serial interfaces. Jupiter brings intelligence to the Triton line of routing switchers, which can also work independently in a closed MIDI loop. Jupiter router control offers the following benefits:

- **High Switch Rates** up to 200 commands per frame sustained are supported with AccuSwitch.
- **Hot Swappable Router Boards.** Constant refresh of all the routers resets crosspoints as soon as a crosspoint board is installed in a router chassis.
- **Persistent Status.** Should the control board be disconnected from the router or switched off, the router will keep current crosspoint settings.
- **Audio Mode Support.** Swap and mix audio tracks of stereo pairs.
- **Large Matrix Control**. A single crosspoint bus interface can control up to 96 Venus boards (four full chassis). To control more than 96, the crosspoint buffer CB-3000 is utilized.
- **Third Party Support**. Third Party Support is provided for Grass Valley, Probel/Alpha-Image, Stagetec (Nexus), Leitch, Utah Scientific, Vistek, Datatek, N-vision, and others.

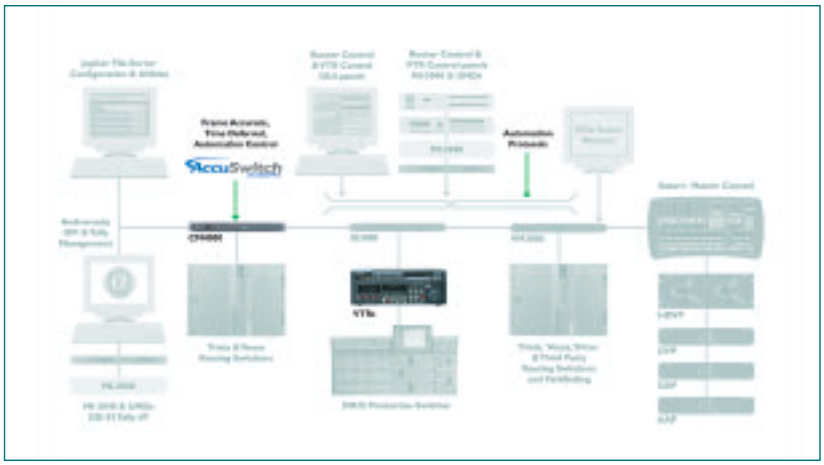
Device Control and Interfaces

Jupiter controls a variety of devices and protocols.

- **VTRs**. Jupiter offers control protocols for Sony, Ampex, Panasonic and the ES-Bus VTR interface.
- **Under Monitor Displays**. Jupiter can send labels to eight character single, dual, or triple UMDs with provision for dual color tally. Jupiter can do the same with some picture monitor splitters, such as Barco Vivaldi.
- **MI-3040**. The universal MI-3040 GPI I/O box operates in many different applications such as a tally box, a parallel VTR control, or general purpose I/O boxes in combination with Jupiter, Saturn, or Andromeda advanced tally management software.
- **Diamond Protocol**. Transfer source names to be displayed on a DD-35 production switcher console feeding the DD chassis through a Jupiter driven router.
- **GVG-200 Protocol**. The GVG-200 protocol allows GVG mixers to save and recall Jupiter-driven router crosspoint settings.

Jupiter supports a wide variety of both Thomson and third-party routers, devices, and interfaces.

Automation Interfaces



Automation Interfaces

Jupiter interfaces with most major station automation vendors by employing additional levels of control.

Premium Router and Machine Control

As with most other control systems available, frame accuracy cannot be absolutely warranted as LAN loading may impact performance. However our *Premium* router and machine protocols offer superior performance in most cases. Here are some of the benefits of this approach:

- **ASCII Protocol** is an easy to implement router control protocol that supports *unsolicited status* feature. As soon as a switch is made in the Jupiter system from any panel or protocol, a notification message is sent by Jupiter through the ASCII line. This avoids continuous polling of the line.

- **ES-Switch** is a SMPTE-EBU-based router control protocol that supports time deferred commands up to 24-hours in advance with execution at the exact time.

- **ES-Bus Protocol** allows automation vendors to control all Thomson supported machine control protocols through Jupiter. Machine control can be shared with Jupiter machine control panels.

- **Saturn Control Protocol** through a connection to any Saturn channel video processor, automation systems can match manual control for most of the features.

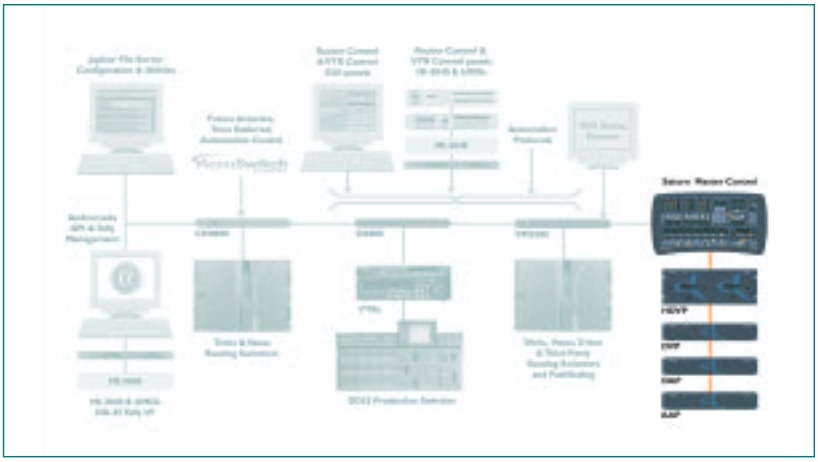
AccuSwitch

AccuSwitch is the ideal solution for real time, high-volume, frame accurate switching that brings added enhancements to the JupiterPlus control system. The AccuSwitch solution is comprised of the CM-4000 dedicated electronic hardware unit and software to create a deterministic platform. In this application shown, the CM-4000 is on the Jupiter Lan but is dedicated to a crosspoint-based router control. No other panels or serial controlled routers can share this CM-4000. Determinism or predictability means that all commands acknowledged by the CM-4000 will be completed at the exact frame. Further checks from the automation system are unnecessary ensuring quality of service. Benefits of the AccuSwitch solution include:

- High throughput of up to 200 physical switches per second at a sustained rate
- Deterministic switching
- Frame accuracy
- Time-deferred commands (send advance switch commands to be completed later)
- Many automation protocols are supported
  - Jupiter ASCII
  - Jupiter ES-Switch
  - SMPTE ES—Tributary (serial automation protocol)
  - SMPTE ES-LAN (LAN-based version of the Jupiter ES-Switch)

AccuSwitch for JupiterPlus

Saturn Master Control Interface



Master Control

Jupiter's advanced routing control, machine control, and tally management provides powerful enhancements to Saturn master control solution. The same Jupiter software is used to configure and operate both Saturn and Jupiter modules and devices.

- **No Source Limitations.** The Saturn audio and video processors consist of mixing stages and routers for source selection. These routers can be internal, external or both. When an external router is used, Saturn's seamless interface with Jupiter allows access to all available sources.

- **Machine Control.** VTRs and servers routed through Jupiter can be controlled remotely from any Saturn master control.

- **Advanced Tally Access.** Either Jupiter internal tally or Andromeda advanced tally can be used for source signaling.

- **Source Monitor Follow** allows a monitor wall to be created in which each monitor represents a button on the Saturn control panel. As new sources are assigned to the buttons, or a different channel is selected, the monitors will change to display the source assigned to that button including UMD updates and tally.

- **Preview Monitor** is a GUI interface that mirrors the buttons on the Saturn control console that can be used to control a routing switcher output bus, thus adding a preview bus to the Saturn system.

- **Backup Switching for Master Control.** In addition to using a dedicated back up router, Jupiter allows the main router that is feeding the Saturn processors to ensure back-up switching.

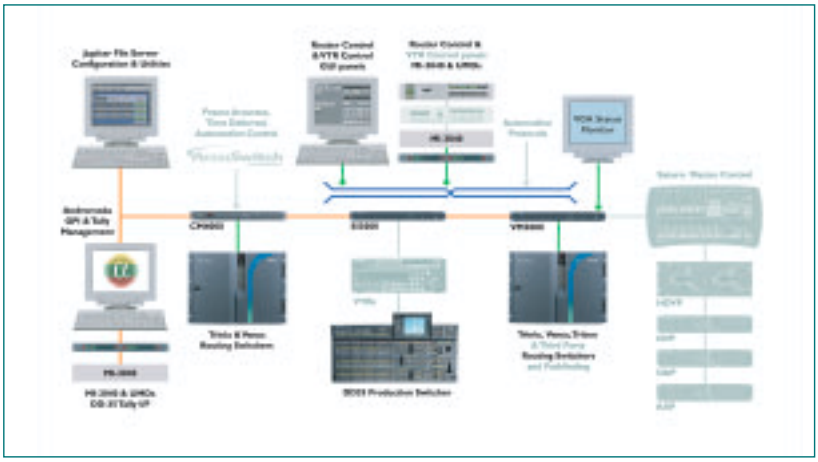
- **Adds User Flexibility to Saturn**. Preset parameters and function button assignments on the Saturn console are easily configured using the Jupiter software (such as audio default settings, transition duration presets, machine control functions, etc.)

- **Multichannel Operation.** Up to 15 Saturn channels each consisting of one video processor (analog, SDV, or HDTV), one to three audio processors (analog or digital), and one console can share the same LAN with Jupiter boards.

- **Multiconsole Operation/Delegation.** Any Saturn console can get access to any Saturn channel with *lock, force unlock, off mode*, and *master mode* bringing added flexibility to your on-air operation.

Jupiter and Saturn bring powerful capabilities to any single channel or multichannel on-air operation.

JupiterLE



JupiterLE Software Option

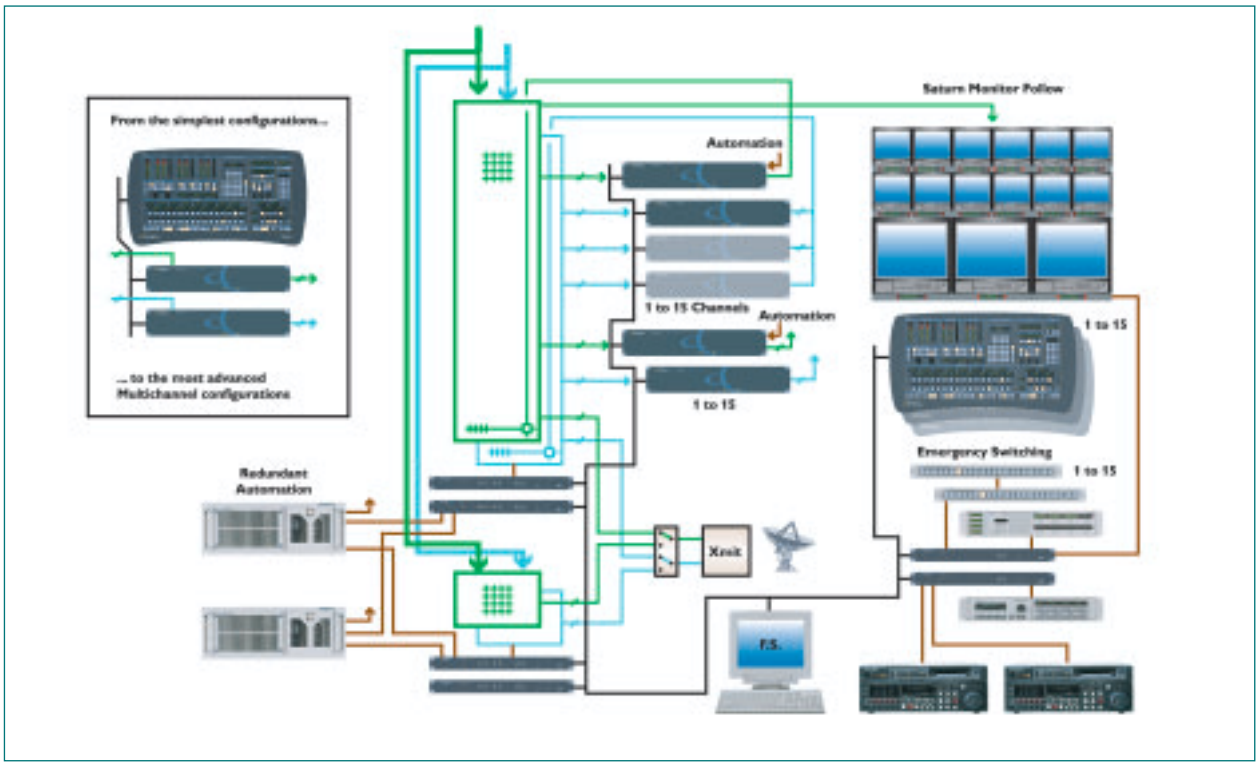
The JupiterLE software option is a comprehensive routing switcher control solution that delivers reliable control solutions throughout your facility.

- **Configuration Editor** provides easy-to-use table editors to configure systems up to 128 inputs by 128 outputs with up to 32 separate levels.
- **Automatic Redundancy** allows the control electronics to be configured in pairs with automatic change-over to provide maximum system reliability
- **Video Status Output** from the VM3000 provides standard VGA output that shows system-wide status of your routing switchers. The screen provides a list of all switcher inputs and outputs. Multiple level display shows the status of each level.
- **Future Growth** provides economical stand-alone serial systems to be expanded to powerful high speed Ethernet LAN-based systems. As your requirements grow, the JupiterLE features can be expanded by upgrading to the JupiterPlus control software.

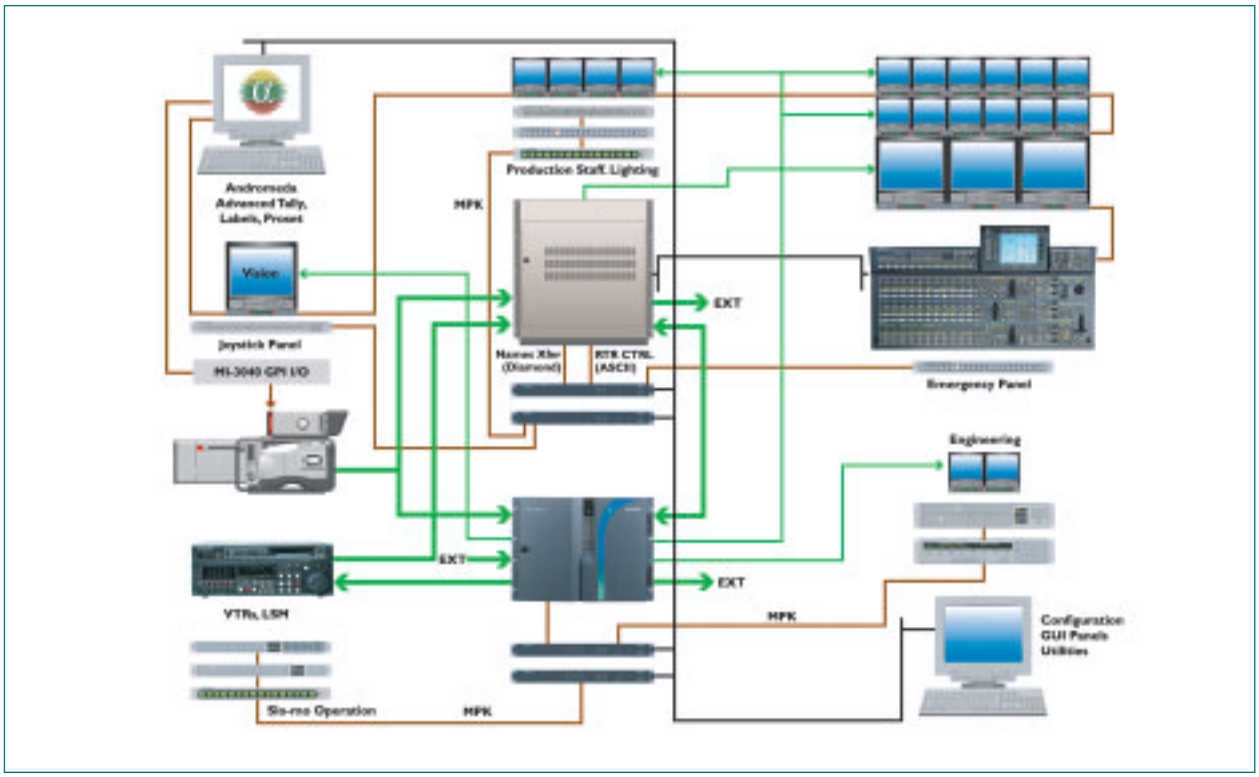
JupiterPlus and JupiterLE Feature Comparison Chart

Feature	JupiterPlus	JupiterLE
VM-3000 HW Compatible	Yes	Yes
SI-3000 HW Compatible	Yes	Yes
Ins x Outs	1000 x 1000	128 x 128
Max Levels	96	32
Saturn Interface	Yes	—
Machine Control	Yes	—
Path-finding	Yes	—
ASCII/ES Switch Protocol	Yes	Yes
3 Stage Configuration	Yes	—
Partyline CP interface	Yes	—
MPK CP Interface	Yes	Yes
GUI Panel Interface	Yes	Yes
Locks/Protects	Yes	Yes
Triton Interface	Yes	Yes
Third Party Router Interface	Option	—
Output Tally	Option	Option

Master Control Solution Application



Production Studio Advanced Solution Application



Jupiter VM-3000

VM-3000 Control Electronics

The VM-3000 Control Electronics Module is the core of the Jupiter control system. It provides a full range of support for distribution switching systems, machine control, and remote control panels. The VM-3000 can be used in all applications from simple stand-alone systems with a single router and a few control panels to the most sophisticated facility control systems with multiple router frames, extensive control panels, master control switchers, and automation systems. This level of flexibility is possible due to download capabilities that can be quickly downloaded from a Jupiter file server. Since the same electronics can function in a full range of applications, the VM-3000 preserves your investment by assuring an upgrade path as your future needs grow.

VM-3000 Specifications

Video output control	Up, Down, Next, and Select push buttons
Operational mode	Active, Fault push button indicators
LED indicators	Power and Alarm indicators
Matrix control ports	2 ea. switcher crosspoint bus, looping (15 pin D female)
Serial control ports	8 ea. configurable in pairs for MPK Bus, ES-Bus, RS-422 SMPTE, or RS-232 Thomson-ASCII (9 pin D female)
	1 ea. Partyline Bus (75 Ohm BNC)
Network	1 ea. Ethernet Thin-net (50 Ohm BNC)
Serial configuration port	1 ea. RS-422 (9 pin D female)
Time code input	1 ea. SMPTE standard (XLR female)
	1 ea. IRIG B (75 Ohm BNC)
Sync in	2 ea. 1 to 4 V P-P looping (75 Ohm BNC)
Video output	1 ea. VGA video output (DB 15 HD female)
Redundancy port	1 ea. to second VM-3000 (9 pin D female)
Diagnostics port	1 ea. pROBE port (9 pin D female)
Alarm output	1 pr. contact closure for external fault indication
Power requirements	90 to 240 VAC 47-63 Hz auto ranging, 100 watts max. power factor corrected
Mechanical	1 Rack Unit EIA standard, l.75h x l9w x l6d inches nominal
Environmental	Operational range: 0~ to 40 degrees C, max. 95% humidity

VM-3000 Features

- **Fully programmable**
  Capabilities are downloaded from any PC running Windows-based Jupiter configuration editor
- **Crosspoint bus I/O ports**
  Control Venus, Mars, Triton, and all previous Thomson distribution switching systems—up to 1000 outputs in a cost effective single rack unit module
- **Hardware has built-in Thin-net port**
  For expansion to a complete Ethernet LAN-based control system at any time
- **Supports a wide range of low-cost user control panels**
  From single bus remote panels to compact multilevel menu based panels. Provides eight independent "Smart Ports" for a total of up to 64 panels without additional control electronics
- **Configurable Smart Ports**
  For ES-Bus devices, RS-422 serial controlled devices, ASCII control
- **Using JupiterPlus Control Software supports:**
  Machine control, master control, and even older BTS with built-in hardware for "partyline" and TCS-l systems
- **Standard VGA outputs**
  Provide a video status display to monitor and control the routing of your facility at a glance
- **Automatic redundancy change-over option available**
  Provides the ultimate in reliability

Jupiter SI-3000

SI-3000 Control Electronics Expansion Module

The SI-3000 Control Electronics Expansion Module extends the range of the Jupiter Control System by providing additional serial ports for connecting additional devices to the system. This module provides 16 additional ports to interface with a full range of devices when the eight ports on the core VM-3000 control electronics have been filled. With its intelligence downloaded from the facility control system, each pair of ports can be configured to talk to a wide variety of control panels, most ES-Bus conforming devices and many other serially controlled products.

The SI-3000 can be loaded with the necessary protocols to function in your unique system. Thomson provides a broad range of switcher control panels that operate on the MPK-Bus. This simple yet powerful communication bus provides for the use of flexible and inexpensive user interface panels.

SI-3000 Specifications

Operational mode	Active, Fault push button indicators
LED indicators	Power and Alarm indicators
Matrix control ports	Serial Control Ports 16 ea. configurable in pairs for MPK Bus, ES-Bus, RS-422 SMPTE, or RS-232 Thomson-ASCII (9 pin D female)
Network	1 ea. Ethernet Thin-net (Cheapernet) (50 Ohm BNC)
Serial configuration port	1 ea. RS-422 (9 pin D female)
Sync in	2 ea. 1 to 4 V P-P looping (75 Ohm BNC)
Redundancy port	1 ea. to second SI-3000 (9 pin D female)
Diagnostics port	1 ea. pROBE port (9 pin D female)
Alarm output	1 pr. contact closure for external fault indication
Power requirements	90 to 240 VAC 47-63 Hz auto ranging, 100 watts max. power factor corrected
Mechanical	1 Rack Unit EIA standard, l.75h x l9w x 16d inches nominal
Environmental	Operational range 0~ to 40 degrees C, max. 95% humidity

SI-3000 Features

- **Connects to Jupiter Ethernet LAN**
  to add 16 configurable serial Smart Ports in a cost effective single rack unit module
- **Smart Port serial communication ports offer the Thomson message-per-key-stroke MPK-Bus protocol**
  to communicate with wide range of user control panels
- **Configurable JupiterPlus control software serial port pairs**
  communicate with a variety of RS-422 SMPTE type controlled devices including newer Sony and Ampex VTRs
- **Serial port pairs can be configured to communicate using a simple ASCII protocol**
  for third party or customer developed custom interfaces
- **Configuration from easy to use Windows-based configuration editor**

AccuSwitch CM-4000

AccuSwitch

AccuSwitch brings real time, high volume, frame accurate switching to the Jupiter Control System. AccuSwitch is comprised of a dedicated electronic hardware unit—the CM-4000—and a software control module.

CM-4000 Control Electronics

The CM-4000 electronic controls include a Jupiter Ethernet LAN port both for legacy interface with Jupiter and for support of automation system connections using ES-LAN. It also provides eight serial ports. This allows for multiple serial connections of a single automation system, or for connecting multiple automation systems each operating simultaneously. Each of the eight serial ports is independently programmable for ASCII, ES-Switch, and ES-Tributary serial protocols operating at up to 115 Kbps. When installed with a redundant backup unit, the CM-4000 provides full automatic change over in the event of a failure.

Software Application

AccuSwitch software continuously monitors system loading and switch volumes and deferred events. Using the ES protocols, AccuSwitch offers frame accurate and time stamped computer controlled switching. As many as 256 deferred times can be accepted up to 24 hours in advance with as many as 200 switches per frame can be scheduled. All eight serial ports can be driven simultaneously.

Physical Specifications

1.75”h x 19”w x 17.5”d
(44mm x 483mm x 445mm)

Front Panel Layout

- Power supply LED indicators
- Activate button with LED for manual changeover on redundant systems
- Board reset button
- Console port for diagnostics
- Two-character, seven-segment displays for status and diagnostics
- Disk drive access bay

Serial Automation Protocols

- Jupiter ASCII
- Jupiter ES-Switch
- SMPTE ES-Tributary serial automation protocol
- SMPTE ES-LAN

Electrical Connections

(1) 9-pin front panel diagnostic port
(8) 9-pin "D" female RS-422 serial (serial connections for automation)
(2) 9-pin "D" female (future auxiliary connections)
(1) 15 pin "D" female (crosspoint bus connector for router)
(1) 15-pin "D" female redundancy port
(2) USB Interface connector (future auxiliary connections)
(1) VGA female display connector (future display options)
(2) BNC (Sync loop through input connector)
(1) XLR Female (Time code input)
(1) RJ45 10/100 Base T Ethernet LAN (automation and Jupiter connection)
(1) Isolated BNC SMPTE 269M alarm

AccuSwitch Features

- **Supports a very high volume of switches-per-frame.** *AccuSwitch provides 200 physical crosspoint switches-per-frame sustained rate.*
- **Deterministic switching.** *It is one-frame latent to all immediate automation commands.*
- **Frame accurate.** *By supporting ES protocols it is possible to schedule deferred switches and have them occur at a specific frame.*

Series 300 Control Panels

The Series 300 control panels are simple, compact, low cost panels for controlling a routing switcher via the Jupiter Control System. They can control all levels, split switching on individual levels, or multiple selection of any of the six different router levels. The Series 300 control panel family includes:

CP-300 single bus control for 24 inputs

The CP-300 uses 24 assignable illuminated push buttons for selecting sources to a single destination.

CP-330 single bus control for 48 inputs

The CP-330 uses 48 assignable illuminated push buttons for selecting sources to a single destination.

CP-310 eight bus control for 24 inputs

The CP-310 uses 24 assignable illuminated push buttons for selecting sources to eight destinations.

CP-320 full X-Y control

The CP-320 uses 16 category and number illuminated push buttons for selecting input sources. Three displays use four-character LED readouts.

CP-328 full X-Y control

The CP-328 uses 16 category and number illuminated push buttons for selecting input sources. Three displays use eight-character LED readouts.

Series 3000 Control Panels

The Series 3000 control panels provide a comprehensive set of tools for router control and machine control. They support a four-character alphanumeric labeling system for router sources and destinations, making it easy to correct selections in very complex systems. The Series 3000 includes:

CP-3000 full X-Y control and CP-3010 control extender

The CP-3000 is a multifunction control panel that uses 10 digit keypad push buttons to select 20 categories. A 2-line, 20-character display indicates the selections made. The CP-3010 expansion panel provides simultaneous status display via four-character LEDs over each push button control of eight router destinations.

CP-3020 single bus control for 20 inputs

The CP-3020 is a button-per-source, single bus module that uses 20 illuminated push buttons to select inputs.

CP-3021 extender panel for 20 inputs

The CP-3021 extender panel expands the CP-3020 with 20 additional button-per-source inputs. Four can combine to extend access up to 100 inputs.

MC-3000 full function machine controller and MC-3010 quad controller

The MC-3000 controls VTRs and other devices using a wide variety of control functions including shuttle. The MC-3010 can simultaneously control up to four devices using illuminated push buttons.

Series 3800 Control Panels

The Series 3800 control panels provide a comprehensive set of tools for router control operations in a Jupiter Control System. These control panels support eight-character alphanumeric labeling system for router sources and destinations. The Series 3800 contains full matrix (X-Y) control panels, panels that control a limited selection of router outputs, and button-per-crosspoint panels for single bus control. The Series 3800 family includes:

CP-3800A full matrix control panel

The CP-3800A is a powerful full matrix (X-Y) control panel that provides broad control over switcher levels. Twenty categories are selected via bi-color illuminated keypad push buttons.

CP-2002 16-LCD button-per-source control panel

The CP-2002 uses 16 LCD backlit buttons that allow source mnemonics to be displayed in the button frame. The panel allows operators to select up to 256 sources by scrolling to additional pages. Button color changes to indicate the active source. Combine up to eight CP-2002s to make an X-Y panel.

CP-3808 single destination control panel

The CP-3808 offers character and number source and output selection to provide access to any crosspoint in a routing system. Sixteen categories are selected via keypad push buttons.

CP-3830 all source/ destination control panel

The CP-3830 is a flexible bus controller to provide access to any crosspoint in a routing system. Twelve categories are selected via keypad push buttons.

CP-3809 destination expansion controller
The CP-3809 expands the capabilities of the CP-3808 or CP-3830 panels by adding eight destination selections for each. Up to five CP-3809 panels can be combined for control of up to 40 outputs.

CP-3810 multiple destination expansion panel
The CP-3810 provides access up to 80 outputs for multiple destination selection and status through push button control.

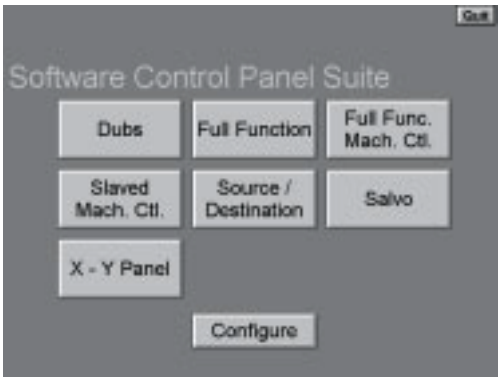
CP-3824 programmable source/destination panel
The CP-3824 is a full matrix control panel that provides 24 dedicated push buttons that can be dynamically assigned to sources by the operator.

CP-3832 32-input button-per-source control panel
The CP-3832 provides button-per-source switching as a 32x1 or a 16x16 controller with displays for current source and status.

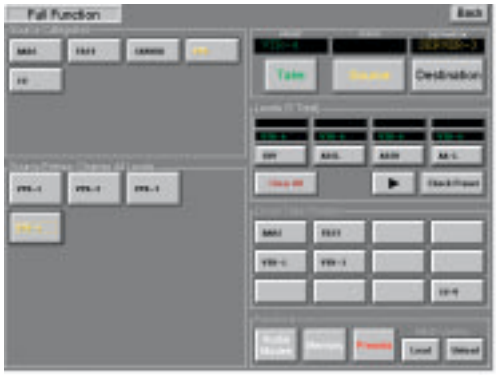
CP-3864 64-input button-per-source control panel
The CP-3864 is configurable as a 64x1 or a 32x32 controller with displays for current source, preset, and output.

Want to quickly find the Jupiter control panel that's perfect for you? Just fire up the Jupiter Control Panel Selection Guide. This free interactive CD-ROM will guide you through all the features and specs of every control panel we make. Contact your sales representative to get your copy today.

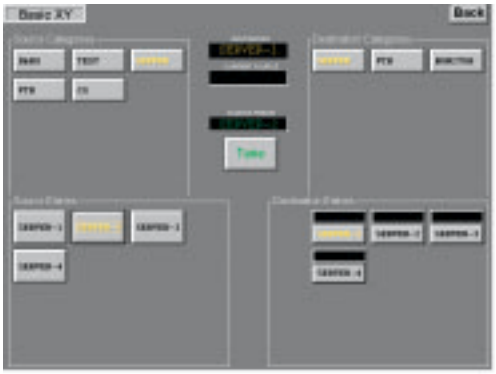
Thomson offers a integrated software control solution that makes configuring and changing the most demanding control system as easy as possible. Here are just a few of the graphical user interfaces that are available.



Panel Suite



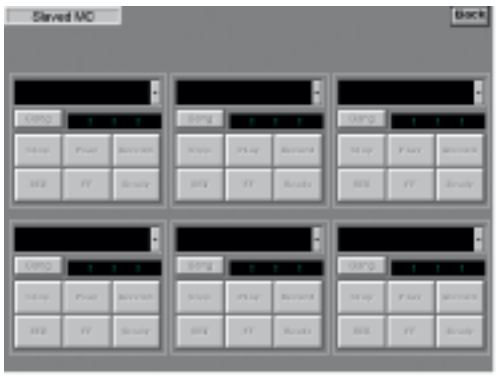
Full Function



Basic XY

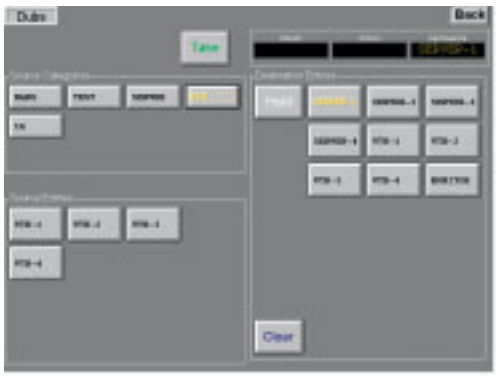
Source/Destination

Full Function Machine Control

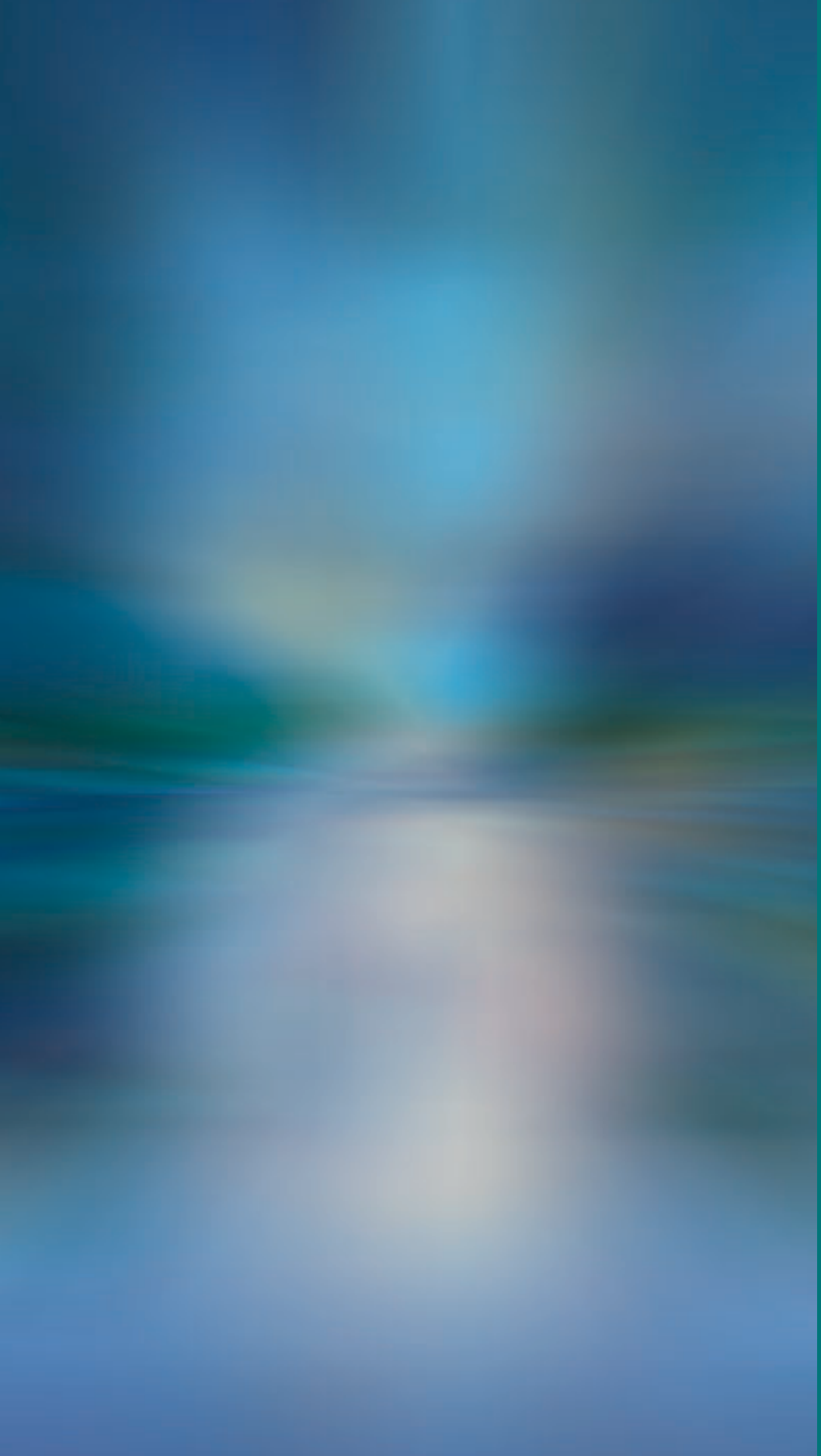


Slaved Machine Control

Salvo Control



Dub panel



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