



Channel in a box



Stingray is a powerful and compact channel in a box solution which leverages Pebble Beach Systems' best-of-breed technology to deliver a full HD ingest and playout solution for systems up to 6 channels.

Based on proven 64-bit architecture, Stingray incorporates the unmatched flexibility of Pebble Beach Systems' Marina enterprise automation, and the power and robustness of its Dolphin integrated channel device. In addition to hosting simple clip-based channels, Stingray is designed to handle complex reactive channels featuring late-breaking changes and dynamic schedules. The client-server based architecture allows a single operator to control up to 6 channels, and the exceptionally intuitive user interface,

powerful graphics and DVE functionality, combine to deliver a best of breed feature set at an affordable price.

Each Stingray is delivered as a pre-built and pre-tested unit for quick on-site integration and one-stop support access. With fewer points of failure, simpler maintenance, and lower energy costs, Stingray adds true channel in a box functionality to the Pebble Beach Systems' family of automation and integrated channel solutions.



Key Features:

- Scalable up to 6 channels, with redundant versions available for each configuration
- Multichannel control from 1 to 4 operator positions for efficient channel management
- Native 64-bit client-server architecture
- Comprehensive ingest functionality with file format and compression selectable on a per job basis
- Full HD solution with multi-format playback and mixed formats on the same timeline
- VTR and router control
- Incorporates encode/decode, up/down conversion, graphics, DVE, ARC, subtitling, voiceover and optional Dolby® encode and decode.
- Support for a wide range of formats up to a maximum video stream of 50Mbps
- Full Unicode compliance for language localisation
- Comprehensive User Rights options to safeguard the integrity of each channel's playout
- Fully featured traffic interface for schedule import and AsRun export
- Offline playlist editing
- IP monitoring directly in the UI for playout and ingest processes
- Optional redundancy with list synchronisation
- SmartList intelligent playlist functionality

Stingray is

Compact and Cost-Effective

Stingray delivers best of breed functionality at a realistic price, making it ideal for single site operations where the integrity and quality of the output is key.

Reliable and Proven

Deploying the technology which underpins the highly-featured Marina automation and robust Dolphin integrated channel platforms, Stingray delivers high performance channel in a box capability with an exceptionally comprehensive control layer.

Versatile and Responsive

Stingray is ideal for the fast deployment of a wide range of channel types, including more complex dynamic channels which incorporate extensive live content and frequent schedule changes, as well as simpler clip-based channels.

Scalable

With a straightforward upgrade path from 1 to 2, 3, 4 or 6 channels, Stingray can grow as your channel counts increase.

Efficient

Based on a client-server architecture, Stingray enables the control of multiple channels from a single operator position.

Resilient

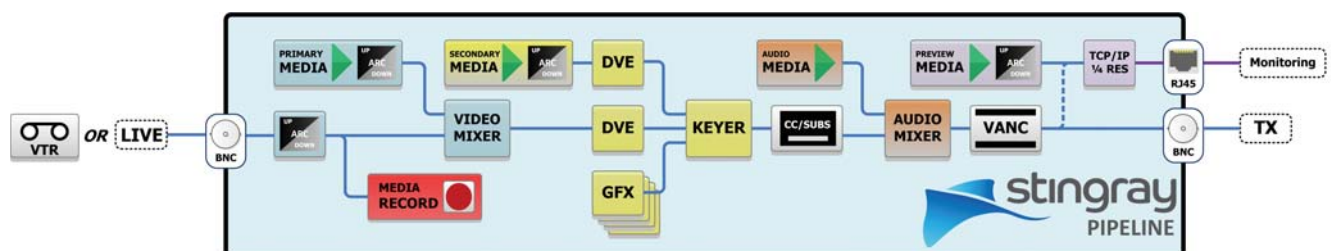
Pebble Beach Systems has a strong reputation for delivering robust solutions where it counts. Stingray offers enhanced redundant configurations hosted on a separate frame to safeguard channel delivery.

The Stingray Pipeline

Each Stingray channel, or pipeline, offers either a live or VTR input, and also supports FXP or FTP file transfer with automatic primary and secondary media caching from nearline storage.

With the ability to handle complex events incorporating a live feed as well as secondary media, dual DVEs and multiple graphics layers, Stingray can handle even your most complex

channel delivery requirements. Stingray channels are hosted in 2 RU servers, each of which can accommodate 2 pipelines.



Configurations:

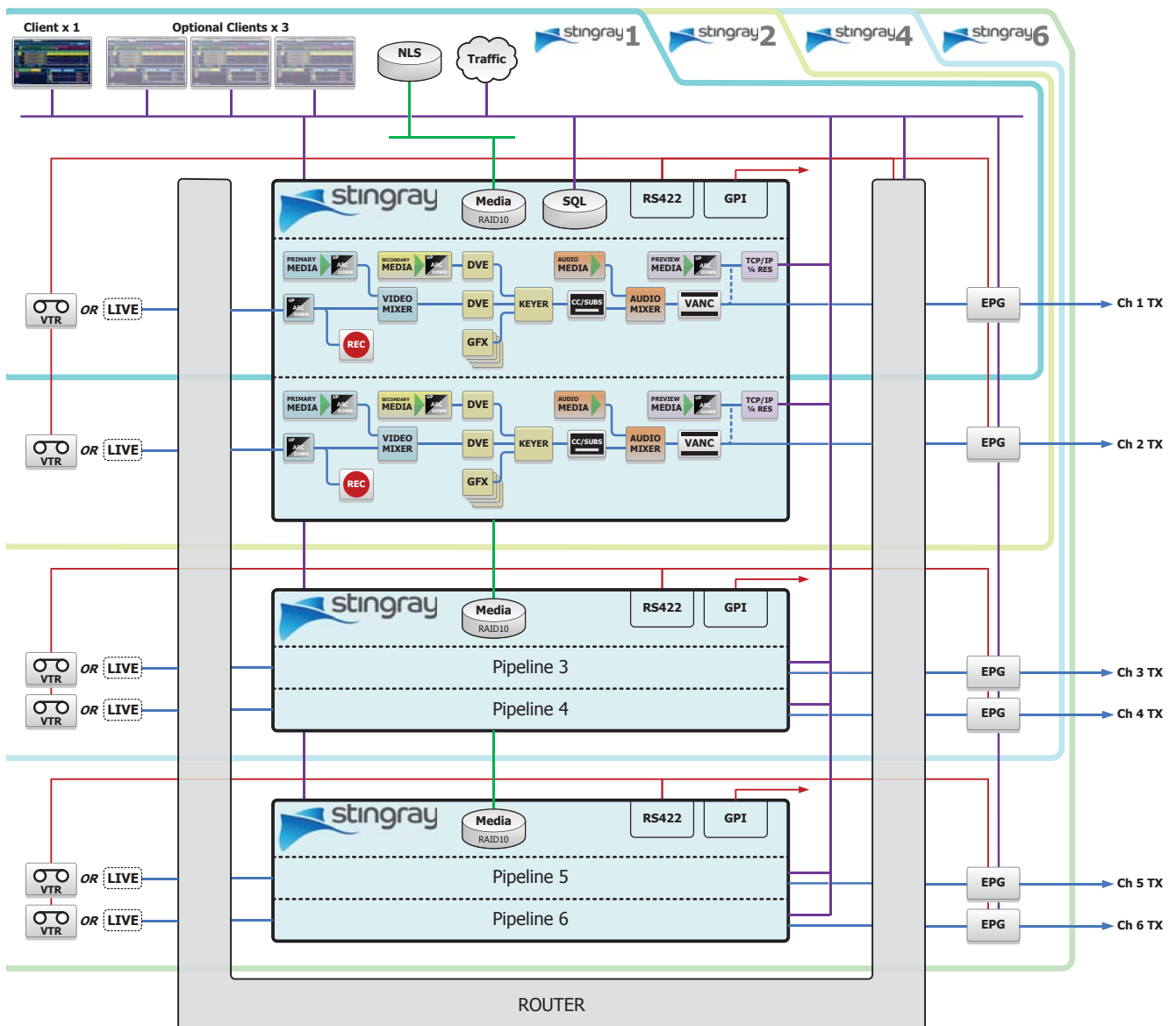
Stingray is available in 5 different channel configurations, each of which can be supplied with full redundancy.

Every configuration is supplied with a client licence, and a total of 4 clients can be integrated into the system.

Each Stingray configuration features an SQL media database, a generic XML-based traffic interface and As Run reporting, centralised serial or GPI control, system and other essential system functions.

Stingray offers configurable user accounts to manage system access and privileges. System configuration, diagnostic checks and modifications are handled by an engineering user account which has access to each channel in the system.

	Stingray1	Stingray1R	Stingray2	Stingray2R	Stingray3	Stingray3R	Stingray4	Stingray4R	Stingray6	Stingray6R
	1 Pipeline, non-redundant	Fully redundant Stingray1	2 Pipelines, non-redundant	Fully redundant Stingray2	3 Pipelines, non-redundant	Fully redundant Stingray3	4 Pipelines, non-redundant	Fully redundant Stingray4	6 Pipelines, non-redundant	Fully redundant Stingray6
Dolphin Hosts	1	2	1	2	2	3	2	4	3	6
VTR Driver	1		2		3		4		6	
Router Drivers	1		1		1		1		1	
Dub Panels	1		2		3		4		6	
Live Panels	1		2		3		4		6	
Playlists	1		2		3		4		6	
Prep Lists	1		1		3		2		3	
Client Licences	1		1		1		1		1	



Stingray3 and 3R not shown



Stingray incorporates Pebble Beach Systems' SmartList technology, bringing enterprise level playlist intelligence to the channel in a box environment:

Flexibility

Stingray's playlist provides full flexibility of editing whilst on air, with edits possible even on the next clip to be aired. The playlist can handle:

- multiple event types (live, clips, CG, subtitles, DVE, AFD, voiceovers)
- multiple classifications (commercials, promos, live, news)
- different event start and end types (timed, manual, sequential)
- overrunning or underrunning events

User Interface and Control

Thanks to Stingray's customisable look and feel, users can specify how their screen layout looks and reload their preferences when they log on.

Changes to the list can be made on the fly and close to air, and drag and drop functionality makes the system intuitive and simple to use. Comprehensive user rights management tools give unprecedented control over access and privileges to different areas of the system.



Stingray's customisable SmartPanel enables frequently used features to be isolated onto an on-screen panel with dedicated buttons e.g. to display or clear a station ident or sponsor logo.

Workflows

Stingray's workflow capabilities set a new standard for channel in a box, delivering:

- A comprehensive range of file import from traffic interfaces using a standard XML format which is available to third parties
- Where no traffic system is used, the ability to use an offline prep list to create on air schedules which

provide a view of all available clips, both in transmission and nearline storage systems

- Detailed reporting via AsRun statistics, featuring logging of user activity, and statistics on commercials via a traffic light indicator
- Comprehensive QC functions: Content could be ingested onto Stingray, reviewed in the standard low res IP preview window or optionally on a high resolution decoder, additional metadata added, QC status changed, then moved to the nearline storage using pre-configured rules configured for QC-passed content
- Support for the automatic capture of live events via secondary record either for delayed playback, or for replay at a future point

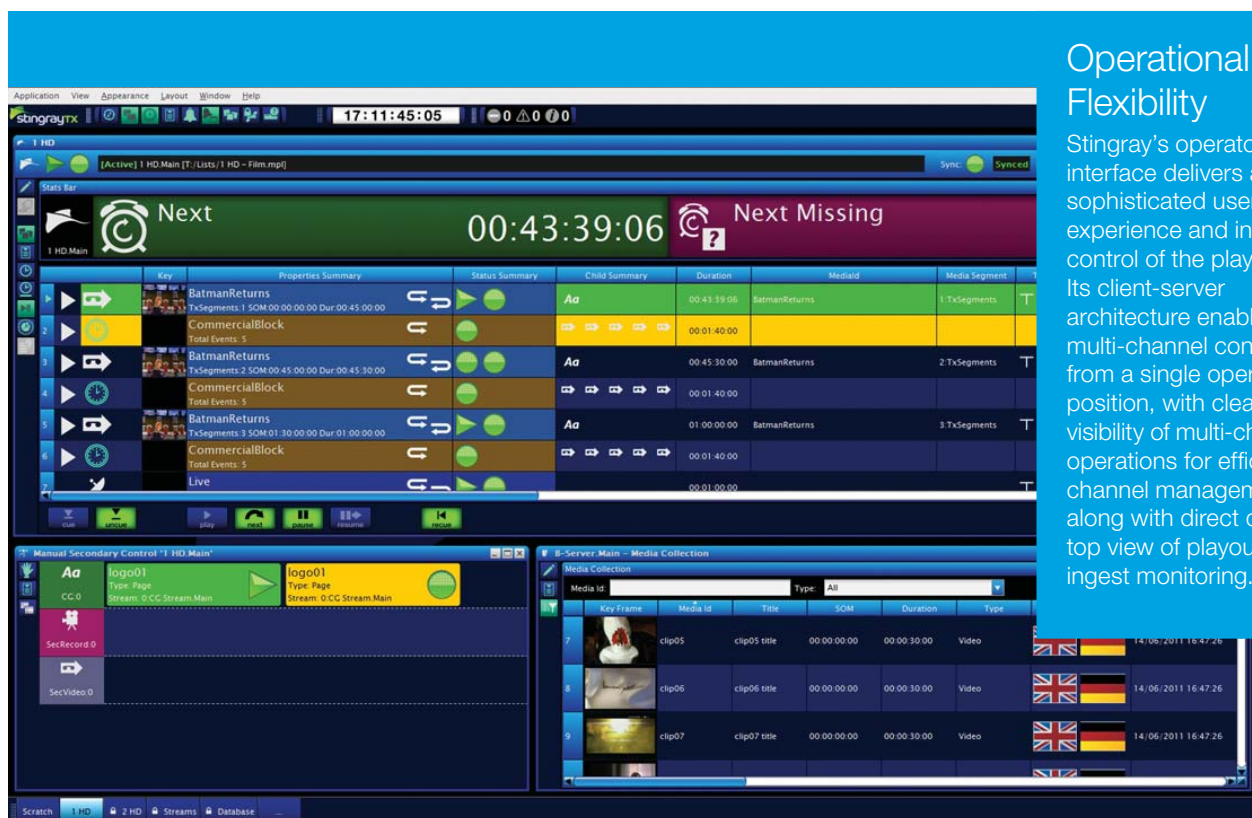
Validation

All primary, secondary and tertiary events in the playlist are automatically and continuously checked for availability and timing anomalies. QC status and classification of events are also checked to guard against unverified or inappropriate materials being broadcast.

Layers

Each event in the playlist may consist of up to 6 layers, each of which is easily populated and checked from the UI:





Operational Flexibility

Stingray's operator interface delivers a sophisticated user experience and intuitive control of the playlist. Its client-server architecture enables multi-channel control from a single operator position, with clear visibility of multi-channel operations for efficient channel management, along with direct desktop view of playout and ingest monitoring.

Graphics Capabilities

Stingray offers native 2D graphics playout of Flash formats and Targa image sequences, with 4 independent graphic layers, and support for classic page-based or scene-based graphics. Population of template fields and animation triggers are also supported, with the media workflow handling dynamic animation registration and validation.

The Auto Promo feature removes the need to create multiple Now Next Later graphics and safeguards the integrity of channel information graphics for broadcasters who have to deal with late breaking changes. Immediately prior to a graphic going on air, Stingray dynamically sources data from multiple

playlists at the same time, extracting the most up to date programme information. Configurable templates are then populated with accurate start times, titles, preview clips and images as required, so that last minute schedule changes can be displayed without the need to manually generate new graphics.

Where more complex Now Next Later graphics are required, Marlin can significantly simplify your graphics workflow. Marlin is Stingray's powerful optional pre-render graphics workflow tool which leverages the power of Adobe® After Effects® CC.



By managing the advance generation of complex promos and captions on this widely used Adobe graphics software, and storing the resulting file as a video clip, it allows complex CGs or multiple Stingray channels to be served by a single high end graphics engine.

Marlin forms an optional part of Stingray's 'AM2' Automatic Media Manager, which continuously monitors the playlist and generates requests for any asset that is required, either pulling it from nearline storage, or instigating the creation of a new asset.

Subtitling

Stingray supports CEA-708 closed captioning, PAL open captioning, OP-47 teletext, and DVB closed captioning. Supported file formats include .890, .srt, .chk, .stl, .pac, .cap, .xma and .txt subtitles.

Video Playback and Record Formats & Features

Stingray delivers full HD capability, with multi-format playback at up to 50Mbps and mixed formats on the same timeline. The system automatically up or down scales as necessary.

Supported Formats	Read	Write
AVC-Intra 50 (HD)	•	—
D10 (IMX) (SD)	•	•
DVCPRO25 – DV25 (SD)	•	•
DVCPRO50 – DV50 (SD)	•	•
MPEG2 LONG GOP (SD)	•	•
XDCAMHD 422 (HD)	•	•

Ingest

Stingray offers maximum flexibility, a high level of control, and access to media in both emerging and legacy formats to provide a comprehensive ingest solution, incorporating:

- Dubbing from VTR
- Manual live recording
- Secondary recording
- The automatic detection of content delivered by third party systems into the nearline storage or local Stingray storage. This is then registered and made available for playout
- Mixing of multiple format content within a single playlist
- Trimming and segmentation of clips. This is possible both during and on completion of ingest, dependent on file formats
- Support for user-defined metadata in Stingray's full SQL database

User Rights Management

Each Stingray is delivered with a pre-set user account configuration, designed to separate Engineering, Operator and View Only privileges. These are simple to reconfigure, and include the control of encoders and decoders, the ability to access and transfer media to and

from near line storage, control and editing privileges for the playlist, and customisation of the user interface.

User privileges and access to specific functionality can be set on a per channel basis.

Group	Engineering		Operation			View Only	
User	Admin1	Admin2	MultiOps	PlayOps	IngOps	View1	View2
Default password	Admin	Admin	Ops	Ops	Ops	View	View
Devices (VTRs, RTRs)							
View	•	•	•	•	•	•	•
Dub / Live Panels							
View	•	•	•	•	•	•	•
Control	•	•	•	-	•	-	-
Manual Control	•	•	•	-	•	-	-
Select Stream	•	•	•	-	-	-	-
Media							
Edit	•	•	•	•	•	-	-
Manage Markups	•	•	•	•	•	-	-
Media Device							
NLS - view	•	•	•	•	•	•	•
Stingray - view	•	•	•	•	•	•	•
Media Streams - encoders							
View	•	•	•	•	•	•	•
Control	•	•	•	-	•	-	-
Media Streams - decoders							
View	•	•	•	•	•	•	•
Control	•	•	•	•	-	-	-
Transfer From	•	•	•	•	•	-	-

Options

- Additional Client Licences (1 supplied as standard, maximum 4 clients per system)
- Hardware Control Panel
- High Resolution Media Player
- Serial Changeover Switch
- Additional Storage
- SmartPanel
- MARLIN pre-render graphics workflow
- DolbyE® encoding and decoding
- Scheduled Record

as standard. Up to sixteen drives optionally supported. 900GB drives optionally available. Drives are hot swappable

- Dual redundant 900W auto ranging hot swappable power supplies. 110-240VAC

Customers can supply their own client machines if preferred. These should meet the following minimum specification:

- Core i5 processor
- 8GB RAM
- 160GB HDD Space
- 1GB Ethernet (NIC)
- Large Widescreen Monitor with minimum resolution 1680x1050
- 1GB Dedicated Graphics Card

Physical

- 2U 19" rack mount form factor.
- Configured with eight 600GB 2.5" SAS drives with hardware RAID (RAID 10)

Purchasing Info

Each Stingray customer is issued with a configuration form, enabling the system to be pre-configured with appropriate user privileges prior to delivery. Test video and graphics files are also requested to enable pre-loading and testing.



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systems

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