

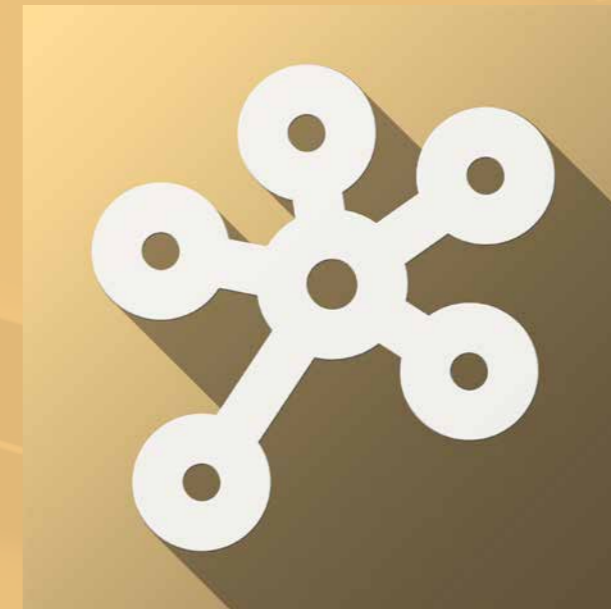


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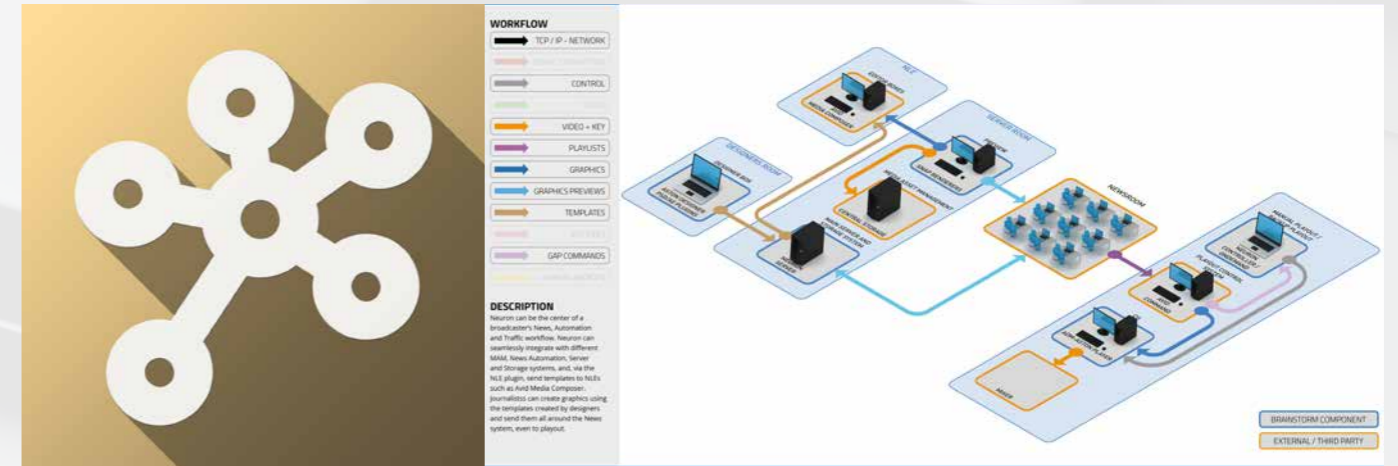
NEURON

BRAINSTORM'S PATHWAY
TO BROADCAST GRAPHICS MANAGEMENT



Neuron is a MOS-compatible, template-based system that integrates graphics creation and management into most common newsroom, continuity and broadcast traffic operation environments, allowing users to integrate high-quality pre-defined 3D graphics to their workflow without the constant input from the Graphics Department.

It is fully scalable and can be tailored to match any client's requirements or budget while it integrates in most types of broadcast content management including traffic and branding.



BROADCAST GRAPHICS MANAGEMENT

Neuron is an integrated, template-based system that allows for complex graphics integration not only in the newsroom, but also in broadcast traffic operation environments. Initially designed for news operation, Neuron currently integrates in most of the common broadcast workflows, transcending the newsroom to support continuity and broadcast traffic.

Neuron is a sophisticated, MOS-compatible on-air graphics control system that enables to integrate Brainstorm's powerful real-time high-quality 3D graphics engine into the broadcast

workflow without the need for continuous input from designers. Neuron allows journalists, producers and other users with no prior 3D graphics knowledge to input data into pre-defined templates that are then updated in the system and added to a rundown list for transmission in the playout area. Additionally, Neuron allows for the integral management of templates and finished graphics through the broadcast workflow including traffic and branding.

COMPREHENSIVE WORKFLOW

Broadcast graphics workflows can be complicated with content coming from

many sources. Neuron integrates and simplifies the process, supporting the playout of graphic and templates created in Brainstorm products such as eStudio or Aston, or in other software packages such as Photoshop.

Graphics templates can be designed and created in Brainstorm products



such as eStudio or Aston or in industry-standard tools (Photoshop, After Effects, 3D Max and many other) and then imported into Neuron. Templates can be as simple or complex as required as well as further refined by updating text and graphics which can be input manually or driven by data sources.

Once templates are created, they can be added or imported into the system and modified at any time. Users working at their own desktops, individually yet in a collaborative manner, can log on to the system to access templates and update them for subsequent addition to a schedule. From their workstation, users can see a preview picture or movie of the graphic they have created before adding it to the rundown.

Journalists and producers work at their own desktops, independent of each other, and can log on to the system to access templates and update them for subsequent addition to a schedule. At their desktop, users can see a preview picture or movie of the animation or graphic they have created before adding it to the rundown.

SMARTTEMPLATES

Neuron supports Brainstorm's SmartTemplates for easier data input and graphic updating. Brainstorm's smart templates also provide sophisticated replacement and transition effects and enable simple graphics to be combined to create more complex ones. This feature expands the graphics possibilities and flexibility of the newsroom, allow-

WHY NEURON

• • •

FULLY SCALABLE AND MODULAR SOLUTION

• • •

TEMPLATE-BASED

• • •

MOS COMPATIBLE

• • •

CONSISTENT WORKFLOW WITHIN COMMON BROADCAST ENVIRONMENTS

• • •

COMPATIBLE WITH MOST COMMON NEWSROOM AND AUTOMATION SYSTEMS

• • •

STANDARD PROTOCOLS

ing faster on-air delivery. Data can be automatically retrieved and then modified from external data sources such as databases, spreadsheets and similar applications, or even RSS feeds, with such automation speeding the process and reducing the margin for error.

- **Replacement and transition effects.** SmartTemplates provide sophisticated replacement and transition effects as well as enable simple graphics to be combined to create more complex ones.
- **Multiple format support.** Neuron is resolution independent, supporting SDI and HD-SDI inputs and outputs with video and key. Works in any HDTV format plus PAL and NTSC.
- **Support for external data applications.** Neuron's SmartTemplates link seamlessly to external data sources, and can collect data from applications such as spreadsheets, databases, feeds or websites.

ing branding or animated promos as it supports the inclusion of graphics in larger workflows including design departments, NLEs and continuity. The layout of these graphics can be performed as the workflow requires, by creating, managing and scheduling playlists or even directly from the continuity/traffic system.

With Neuron, non-linear editing systems (NLE) operators can easily create graphics and directly insert them into their project's timeline. By using the Neuron Client plugin, editors can access the graphics templates, change the values at any time, and adjust the graphics' length even when the graphics are edited into the timeline, with no further rendering required. This means

editors do not need to wait for the graphics to be created and made available by someone else to include them in their projects.

NEWSROOM AND AUTOMATION INTEGRATION

Neuron is MOS-based and seamlessly integrates with newsroom systems such as Avid's iNews, AP's ENPS, Annova's OpenMedia, Octopus and VSN's VSNNEWS. It is a scalable solution, with any number of users and outputs depending on the requirements of the channel. MOS compatibility then allows the seamless integration of graphics into the rest of the newsroom and traffic environment.

The system includes the Neuron Con-



NEURON

BEYOND THE NEWSROOM

Within a wider broadcast environment, Neuron can provide a channel with a complete, shared and centralized control and management system for all kind of graphics. The system integrates seamlessly in the newsroom, but transcends the news requirements includ-

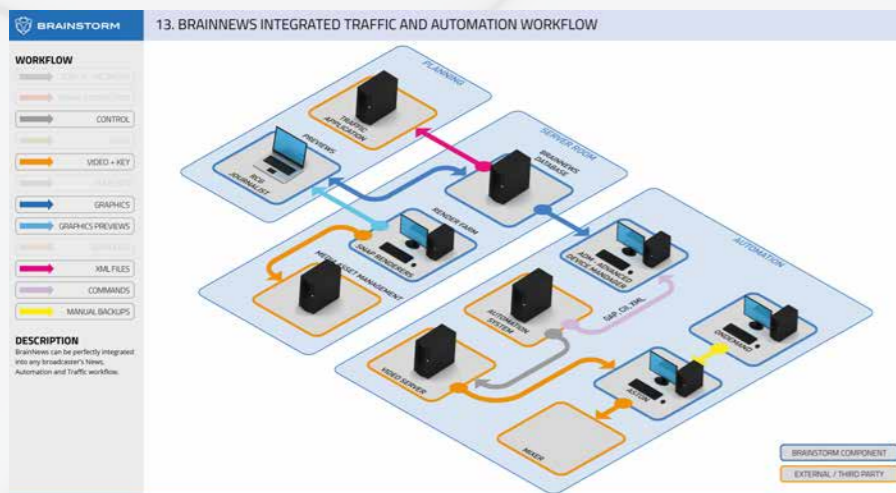
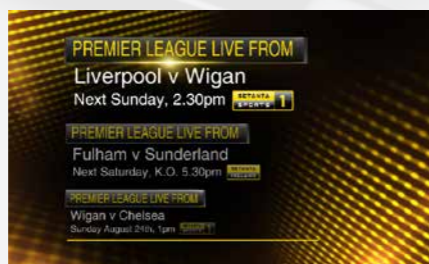


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troller, a software module that allows the playout of graphics, although Neuron also enables the use of independent software such as Avid ControlAir and Avid iNews Command. The system is based on networked PCs and can be scaled up, adding users and outputs according to customer requirements.

Playlists can be managed from the newsroom via drag and drop of graphics, which can be further edited. The playlist can be sent to the on-air command system, and last minute graphics can be added immediately from the command system or directly from the newsroom. Additionally, Neuron allows for manual operation of playlists, creating a backup system for on-air operation via Neuron Controller,

which allows real-time preview, live take/next take functions for immediate broadcasting of last minute changes, plus the ability to include special commands in the running order for logo or bumper insertion. Also, the Neuron Canvas component can work as a standalone application so users can create their own newsroom graphics directly. This allows for smaller operations even if they don't have sophisticated NRCS systems.



NEURON ADM

Neuron integrates the ADM (Advanced Device Manager) component that transforms commands from input protocols to an output protocol. Brainstorm ADM supports the following protocols:

INPUT PROTOCOLS:

- Avid Control.
- Neptune Graphics Control Protocol (Pebble-Beach).
- GAP (Brainstorm Graphics Automation Protocol). This is a Brainstorm XML protocol that allows the external control of Brainstorm products by third parties.
- CII (Chyron Intelligent Interface)

OUTPUT PROTOCOLS:

- eStudio
- Aston

Brainstorm ADM can also be used separately for customers that look for integration on a branding, automation or continuity system, as it can be controlled by external applications.

Application	Manage	Status
Gateway	Enabled	Running
Manager	Enabled	Running
SnapServer	Enabled	Running

KEY FEATURES

SCALABILITY

Using networked PCs, Neuron is a fully scalable system that can be tailored to match any channel's requirement and budget.

NEWSROOM AUTOMATION, TRAFFIC AND NLE INTEGRATION

Neuron is MOS-based and integrates with most common newsroom environments such as Avid's iNews, Ap's ENPS, Annova's OpenMedia, Octopus or VSN's VSNNews.

MULTIPLE FORMAT SUPPORT

Neuron is resolution independent, supporting SDI and HD-SDI inputs and outputs with video and key. Works in any HDTV flavour plus PAL and NTSC.

EASY TEMPLATE EDITING

Pre-defined templates are easily accessible by the users, who can modify template data at anytime, editing text and data and previewing the changes using the SnapServer prior to on-air.

SUPPORT FOR EXTERNAL DATA APPLICATIONS

Neuron's SmartTemplates link seamlessly to external data sources, and can collect data from applications such as spreadsheets, databases, feeds or websites.

ADVANCED CONTROL FUNCTIONS

Neuron Controller is an easy-to-use module that allows real-time preview, live take/next take functions for immediate broadcasting of last minute changes, and the ability to include special commands in the running order for logo or bumper insertion.

NEURON COMPONENTS

NEURON CONTROLLER

Software module dedicated to play out the graphics in the gallery. Allows the preview, playout, editing and customization of graphics.

NEURON MANAGER

Provides floating licenses in the newsroom.

NEURON CONTENT

Allows filling in the editable parts of the template. It is not required where Neuron is integrated with third party newsroom systems like Avid iNews or ENPS. Neuron Content can also be used in complex systems as a backup to deliver real-time on-air 3D graphics.

NEURON CLIENT

It is an ActiveX plug-in used by the users to select the templates, or review the list of created graphics, to customize the final graphics. As part of Brainstorm's MOS integration, it works inside the newsroom environment.

NEURON SNAPSERVER

A dedicated render system that centralises and provides graphics preview for the journalist and full resolution graphics, images or movies.

NEURON GATEWAY

A software module to manage the MOS communications with the Newsroom systems.

NEURON ESTUDIO PLAYER

The eStudio engine to play the Neuron graphics.