



CEREBRUM DESIGNER BASIC TECHNICAL TRAINING

This course is meant for experienced engineers who have attended the Cerebrum Basic technical training and want to learn how to create software panels and custom workflows using Cerebrum Designer toolbox. Upon completion of this training session, participants will have gained a deeper understanding of how to use the Designer application. The participants will have created their personal user interface mock-up, a working device monitoring and control user interface, a template file and a hardware router panel that can be used as a base for future designs.

Target audience: highly skilled support engineers with software development expertise in IP-based broadcast infrastructures, responsible for creating, modifying, and maintaining user interfaces in Cerebrum.

Format:

To best support your learning needs, this training program is available in different delivery formats.

E-Learning (Recommended) – Duration: 2 hours

Flexible self-paced online training accessible anytime and anywhere. Ideal for efficiently training individuals or teams with minimal scheduling constraints.

EVS classroom or remote – Duration: 2 days

Instructor-led training delivered at a dedicated training location or virtual classroom, allowing direct interaction with the trainer and hands-on exercises.

Pre-requisites

- Completion of Cerebrum Basic Technical Services training.
- Comprehensive broadcast knowledge:
 - Video and audio signals.
 - Routing and level control (video/audio levels).
 - Device control concepts.
 - Protocol knowledge.
- IP Basic/Networking knowledge:
 - IP addressing, L2, L3, subnet masks
 - Port numbers, TCP vs. UDP
 - Multicast concepts
- Solid Live IP knowledge: SMPTE ST2022, ST2110, SDP, PTP, NMOS, JT-NM
- **Experience with a scripting language** — *essential for the Designer app training*:
 - Examples: Java, Python, Visual Basic, C#, JavaScript, Lua, etc.
 - Understanding of variables, for/while loops, conditional logic (if/else), functions, and event-driven programming.
 - *Note:* Basic HTML knowledge, simple website creation, or experience limited to installing pre-built software on devices are not considered sufficient prerequisites for this course.



Group size & Considerations

1. Maximum number of participants: 4
2. The training includes an optional online quiz, with **a required passing grade of 70 out of 100**.
3. Designer app builds data on the device, routing tables, and logic managed by the Server. A clear understanding of the Server ensures that Designer can be used effectively and with confidence.
4. If the engineer's role is purely to create visual layouts for others to script, or to make quick mockups for operational discussion, the Designer Advanced course is not required. However, they will not be able to build functional logic without additional training.

Agenda

1. Cerebrum Designer application introduction
 - General Designer application introduction and what can it create
 - Application walk-through. Menu bar, Properties window, Toolbox, Attribute window and System view.
 - Mock-up design using basic controls and configuring; Initial values
2. Drag and Drop design Using the System view window to navigate and select device values
 - Datatype-based control logic and how to overwrite this logic
 - Template arguments
 - "Unfolding" templates to expose script
3. Template design
 - The Pros and Cons of templated controls
 - Creating a template file for custom design
 - Setting input arguments and using them in the template
 - Router Panel Design
 - Category type driven template assignment
 - How to overwrite the Auto Category template assignment
 - Fundamental router panel design structures
 - Configuration of the Parent and Children subpanels
 - Explain how to create a Hardware Router Panel
4. Basic introduction to Events & Actions