Aliro Simulator Data Sheet

Design and Emulate your Quantum Networks, Testbeds, and Protocols at all levels of abstraction from a single two node link to application specific large networks.

Aliro Simulator

Aliro Simulator is a versatile, modular quantum network simulator equipped to model all portions of a quantum network from the smallest optical components to the largest heterogeneous networks.
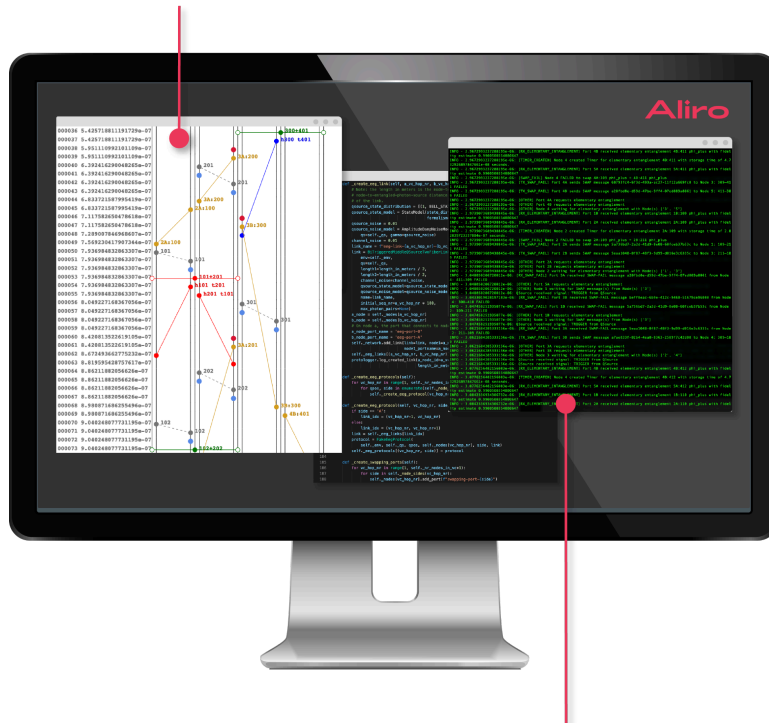

Aliro Simulator

Building a quantum network can be extremely complex and time consuming, but Aliro Simulator offers customers the ability to evaluate and fine tune components, configurations and use cases while looking at accuracy, flexibility and scalability before they need to purchase or deploy anything. This release also includes a visualizer tool that allows users to graphically investigate the node level performance of a network design and set of protocols.

Use Cases: Design your quantum network with Aliro Simulator

- Assess what is needed in a quantum network implementation to meet application requirements.
- Create realistic performance estimates for concrete network design drafts, for example data rates and fidelity.
- Make informed decisions about trade-offs in cost, performance, and node placement.
- Evaluate the performance and interoperability of competing hardware modalities and devices before purchasing and integrating.
- Discern which use cases are practically viable on a planned network implementation.
- Develop, test, and benchmark protocols and applications with desired network configuration.

Full Network & Quantum Visualization

Full Network & Quantum Simulation

Aliro Simulator offers full quantum network emulation and simulation

Aliro Simulator allows users to construct and simulate quantum networks at full scale all the way down to a low level of abstraction. Aliro Simulator implements discrete event simulation, multiple quantum state computation backends, generic quantum and classical device components, optical components, noise models, networking concept abstractions, and support classes. Organizations are able to determine proof of value for implementing an entanglement-based quantum network prior to purchasing actual quantum networking hardware and software.