Q-CTRL and Classiq Partner to Improve Quantum Algorithm Development

New software integration helps developers build faster and more efficient quantum algorithms

SYDNEY, AUSTRALIA, November 22, 2022 /EINPresswire.com/ -- Q-CTRL, a global leader in quantum control infrastructure software, and Classiq, the leader in quantum algorithm development software, today announced a partnership to provide an end-to-end platform for designing, executing, and analyzing quantum algorithms.

> Our partnership with Classiq is another significant step forward in making quantum technology useful and readily available”
>
> *Aravind Ratnam, Chief Strategy Officer*

The new partnership will integrate Classiq's Quantum Algorithm Design platform with Q-CTRL's advanced quantum control techniques designed to boost hardware performance. The collaboration combines the sector's leading quantum product teams uniting research by expert developers, physicists and scientists.

The integration will provide a single interface where developers can use both solutions to create algorithms and run them with high-performance error reduction techniques, simplifying the end-to-end process of getting useful insights from quantum computers. The powerful technologies developed by both companies reduce the need for users to possess deep quantum computing expertise, allowing developers to focus on domain-specific applications that matter most to them.

Customers can use these tools out-of-the-box to get more out of today's hardware and prepare to build useful quantum algorithms to solve some of the world's most difficult computational problems, such as finance, quantum machine learning for drug discovery, and optimization problems for logistics.

“Our partnership with Classiq is another significant step forward in making quantum technology useful and readily available,” said Aravind Ratnam, Chief Strategy Officer at Q-CTRL. “We look forward to seeing how developers leverage our new integration to address critical challenges that are too complex for classical computing.”

Users will be able to develop in Classiq's platform while incorporating Q-CTRL’s hardware-enhancing tools “under the hood.” Classiq's quantum algorithm design platform can take high-

level functional models and transform them into quantum circuits, which will be automatically optimized by Q-CTRL's infrastructure software. These tools are both hardware agnostic, meaning they can run on a wide range of quantum hardware providers.

"We are excited to partner with Q-CTRL to combine our expertise and platforms for real-world benefit," said Nir Minerbi, CEO and co-founder at Classiq. "Combining our complementary technologies creates a seamless and computationally improved environment that expands the possibilities for quantum developers, and we are proud to enable new, impactful applications."

Currently, noise and decoherence in quantum hardware is one of the biggest hindrances preventing the quantum industry from achieving the full potential of the technology. Q-CTRL offers solutions to improve quantum algorithm and hardware design to reduce these adverse effects, while also offering educational tools to expand the talent pool of quantum software engineers. Q-CTRL is uniquely focused on creating an ecosystem of products to solve the biggest limitations in the industry to make quantum technology useful for organizations around the world.

To learn more about Q-CTRL and Classiq, please visit: q-ctrl.com and classiq.io

About Classiq
Classiq is the leading quantum software company, taking quantum software to a higher level. Built for organizations that want to jumpstart or accelerate their quantum computing programs, Classiq's patented software automatically converts high-level functional models into optimized quantum circuits for most quantum computers and cloud providers. Customers use the Classiq platform to build software they could not create otherwise, bypassing the quantum assembly level. Due to its functional descriptive approach, Classiq also makes it easy to upskill domain experts with little quantum experience and integrate them into high-performing quantum teams. Backed by powerful investors such as HPE, HSBC, Samsung, Intesa Sanpaolo, and NTT, Classiq raised $63 million since its 2020 inception, built a world-class team of scientists and engineers, and distilled decades of quantum expertise into a groundbreaking software development platform. Classiq equips customers with what they need to take full advantage of the quantum computing revolution.

About Q-CTRL
Q-CTRL is building the quantum technology industry by overcoming the fundamental challenge in the field – hardware error and instability. Q-CTRL's quantum control infrastructure software for R&D professionals and quantum computing end users delivers the highest performance error-correcting and suppressing techniques globally, and provides a unique capability accelerating the pathway to the first useful quantum computers. This foundational technology also applies to a new generation of quantum sensors, and enables Q-CTRL to shape and underpin every application of quantum technology.

Q-CTRL has assembled the world's foremost team of expert quantum-control engineers,

providing solutions to many of the most advanced quantum computing and sensing teams globally. Q-CTRL has been an inaugural member of the IBM Quantum Startup network since 2018, and recently announced a partnership with Transport for NSW, delivering its enterprise infrastructure software to transport data scientists exploring quantum computing. Q-CTRL is funded by SquarePeg Capital, Sierra Ventures, Sequoia Capital China, Data Collective, Horizons Ventures, Main Sequence Ventures, In-Q-Tel, Airbus Ventures, and Ridgeline Partners. The company has international headquarters in Sydney, Los Angeles, and Berlin.

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