Cambridge Quantum Computing announces new release of updated software stack t|ket⟩ ™

t|ket⟩ provides essential tools that allow users to maximise the performance of quantum computers in the NISQ era

CAMBRIDGE, UK, Nov. 18, 2019 - Cambridge Quantum Computing ("CQC") today announced the release of pytket 0.4 – a major upgrade of the python version of their already best in class software stack and quantum compiler framework **t|ket⟩**.

CQC's **t|ket⟩** offers a flexible workflow to develop quantum chemistry and quantum machine learning applications. **t|ket⟩** is a class-leading circuit optimiser and qubit allocation system that generates highly efficient circuits tuned for any of the major quantum computing processors and devices.

The compilation engine provides high-performance application-oriented optimisation passes, with a consistent interface across routing, optimisations, and other circuit transformations. The unique transform combinators allow users to design their own passes, to minimise the quantum resource requirements for their chosen application, whilst always ensuring the correctness of the overall circuit, regardless of the target platform.

As well as improvements in circuit optimisation and qubit routing, a new consistent back-end interface allows users to switch seamlessly between different quantum computing platforms or simulators by changing a single line of code and still taking full advantage of **t|ket⟩**'s high performance compilation, which now uses device calibration data (where available) to maximise the fidelity of the overall circuit.

Additionally, **t|ket⟩**'s front-end now includes features that allow flexible circuit construction, including multi-controlled gates, certain classes of custom gates, and support for the Quipper programming language.

For more details, including terms of use:

https://cqcl.github.io/pytket/build/html/index.html

About Cambridge Quantum Computing

Cambridge Quantum Computing (CQC) is a world-leading quantum computing software company with over 60 scientists including 35 PhD's across offices in Cambridge (UK), San Francisco, London and Tokyo. CQC builds tools for the commercialisation of quantum technologies that will have a profound global impact.

CQC combines expertise in quantum software, specifically a quantum development platform (t|ket⟩™), enterprise applications in the area of quantum chemistry (EUMEN), quantum machine learning (QML), and cybersecurity (IronBridge).

For more information about CQC, visit www.cambridgequantum.com