

Quantinum H-Series Product Change Notification

Title of Change:	QIR Public Release
Date of Change:	July 31 st , 2024
Contact Information:	QCSupport@quantinum.com
Products Impacted:	All H-Series targets
Changes to Product Data Sheet:	NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>
Changes to Subscription Contract:	NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>
Changes to Interface:	All <input checked="" type="checkbox"/> Quantinum API <input type="checkbox"/> Microsoft <input type="checkbox"/>
Description and Purpose:	The purpose of this notification is to: 1) Notify customers that the H-Series software stack is moving to QIR by default. See additional information below for more details.
Reason / Motivation for Change:	Performance improvements
Action Required by Customers:	Users should be notified of the ability to submit QIR circuits directly to Quantinum APIs

Additional Information:

1) Notification of H-Series software stack update to using QIR by default

Effective January 31st, 2024, the Quantinum H-Series software stack will be switch from using QASM to using QIR by default. This change was made to provide performance improvements, allow the expression of more complex conditional structures, and align with new industry standards. This change is applicable to all Quantinum end points.

Users can now submit QIR directly to the Quantinum H-Series APIs. Users wishing to continue to submit circuits via QASM may do so; these circuits will be converted within the stack to QIR prior to compilation.

Quantinum has carried out extensive testing and has confirmed that all circuits written in QIR and submitted to Quantinum endpoints will have equivalent or better performance compared to circuits written in QASM.