

ABSTRACT

Localization and modernization of existing open-source tools important to the medical physics community are important contributions to keeping care costs low and quality high. QATrack+ is a modern, open source, Quality Management system enabling users to quickly and confidently maintain their suite of QA results, QC tests, and Service events. This software system is used to satisfy regulatory requirements for multiple sites worldwide.

Traditionally an English focused development, QATrack+ now includes draft translations for the users in Spanish and French, with the support and framework to expand to any language.

Connect



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Modernizing Open-Source Quality Management: QATrack+ Now Multilingual, Needs Contributors and Admins

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PROGRAM

QATrack+ is a locally deployed web application based on the Django web framework and Python. The intent of the program is to offer clinics a free and open-source QA management solution. This can include:

- QA activity tracking
- QC trending
- Maintenance logging
- Regulatory compliance

Originally written by The Ottawa Hospital Cancer Centre, users have expanded across Canada, and internationally, including to countries where English is not the official language.

Compatibility

One of the key advantages of being built on open-source frameworks is the platform’s inherent extensibility. This has and continues to enable clinics to integrate and support a broad range of clinical and QA equipment independent of vendor. Some examples include profilers, daily output measurement devices, imaging phantoms, CT scanners, MRI systems, and linear accelerators. The platform also benefits from a strong history of community-driven development, with integrations and enhancements being openly shared, validated, reviewed, and adopted across the medical physics community.

SYSTEM REQUIREMENTS

A key focus is on ensuring local site resources are manageable for any scale of deployment. Most sites deploy QATrack+ using a virtual machine, which aligns with best practices for small browser based tools. If a clinic only has 2-3 clinical machines and expects to manually enter most information, then the effective requirements are those of the operating system.

For a complete deployment with integrations for analysis (PyLinac, PyMedPhys, etc.) the system requirements scale modestly.

Supported installations:

- Microsoft Windows (SQL Server)
- Ubuntu (PostGreSQL)
- Docker (PostGreSQL)

Each of which have been tested on 2 cores, 4GiB ram, and 25 GiB of storage.

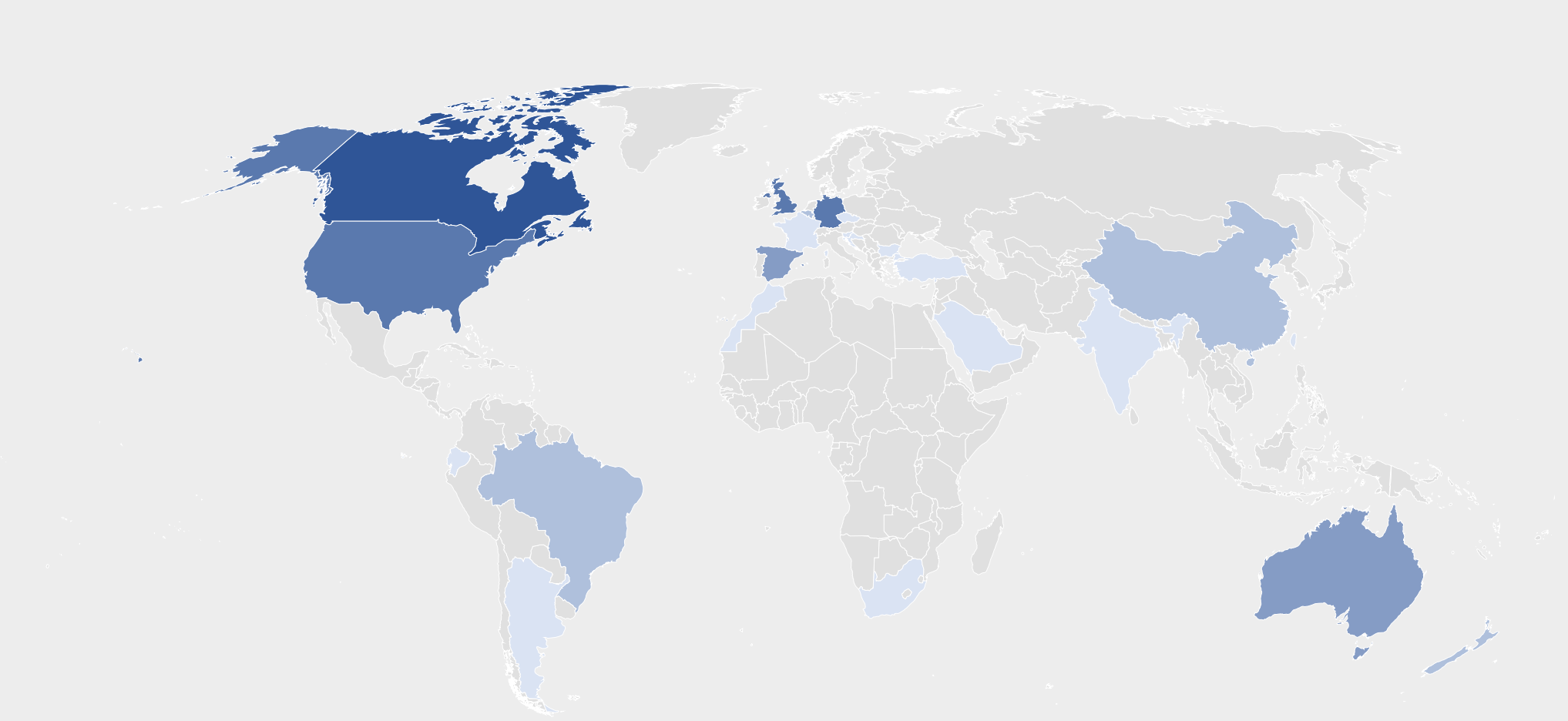
WE ARE LOOKING FOR HELP

QATrack+ needs to increase community engagement:

- Translators for supporting more languages
- Graphic and Web Developers
- Add new Administrators and Moderators to the organization
- Return to a frequent patch cycle
- Maintain a reasonable update frequency
- More test data to better support QA equipment.

PROJECT

The 2026 CNSC Innovation Grant supports ongoing platform improvements, including Canadian French localization for all users. **Clinics across Canada are invited to leverage grant-funded on-site support** resources to assist with upgrades and adoption, while remote support and guidance remain available to the wider international community.



QATrack+ has been adopted by clinics around the world, creating a vibrant international user community long before formal multilingual support was introduced. Expanding localization efforts will help make the platform more accessible to clinicians while still meeting the needs of administrators and technical staff, which can vary significantly across countries and healthcare systems. **We are actively seeking community members who would like to contribute translations or assist with localization efforts.** If your institution or professional network is interested in supporting a new language, we encourage you to get in touch. In some cases, resources may be available to help facilitate translation and implementation efforts.

NEXT STEP

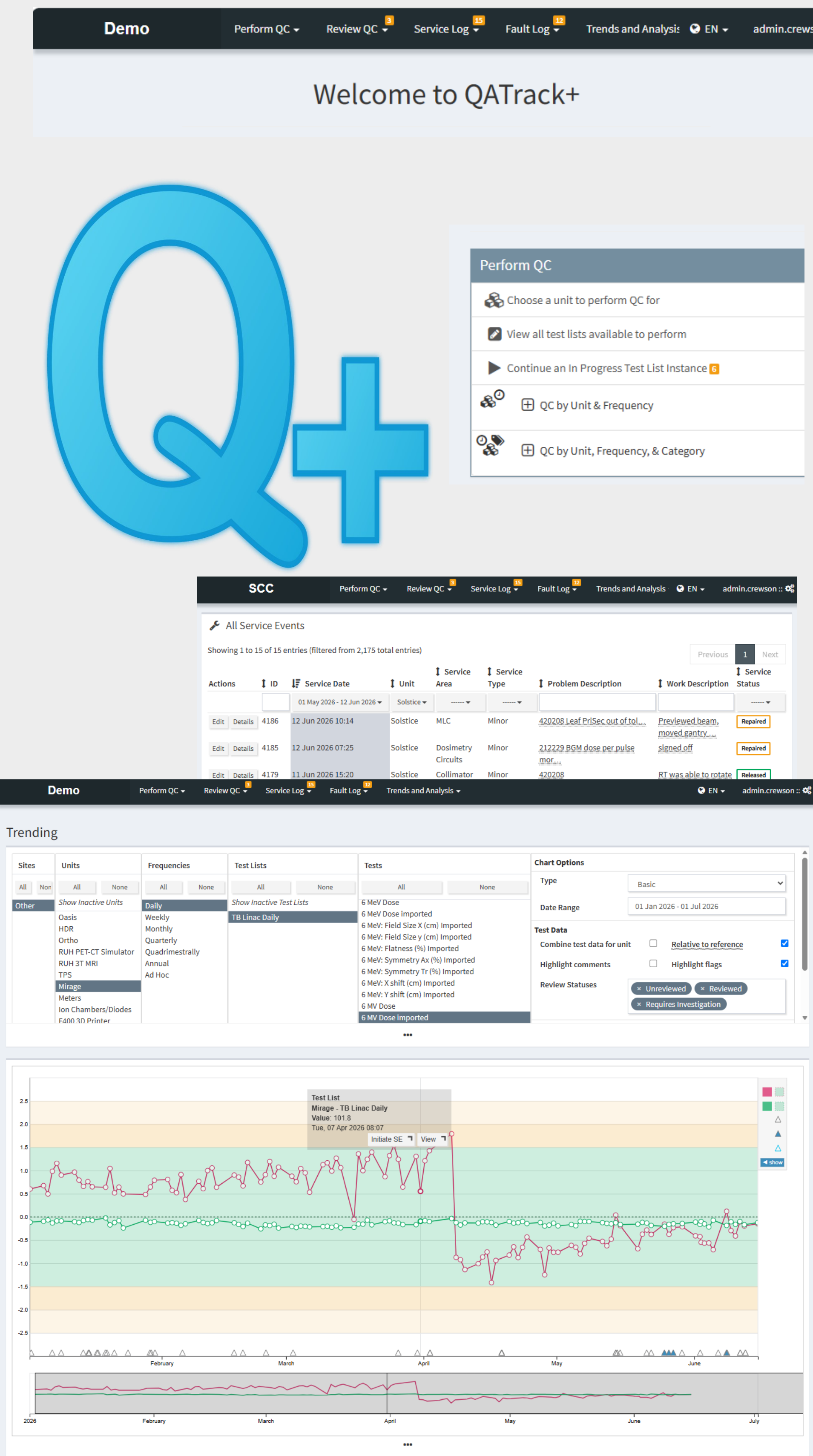
Two major features have been requested by the community:

- Dedicated tooling for calibration factors
- Tools related to Regulator/Accreditation requirements.

We welcome any additional suggestions.



Contribute



Version 4.0 released July 1!!!

QATrack+ version 4.0 is a significant upgrade for administrators and international users.

- Multi-language support
- Built on a modern software stack
- Better support for time zones
- Removal of deprecated framework features
- Simplifying requirements to reduce development effort.

This release marks the first significant upgrade in quite a few years.

SPECIAL THANK YOU

The recent 4.0 release would not have been possible without:
Nathan Smela (BC Cancer)
Ethan Sutherland (University of Regina)

