



Impacting the Quality of Life Through Technology

Local partnership. Global engineering strength.

Custom software engineering for regulated, safety-critical industries.

WHO WE ARE

IQ Inc. is a Pittsburgh-based software engineering firm that has designed, built, and tested custom software for regulated, engineering-led industries since 1994. In January 2026, IQ joined Critical Software, a global engineering group delivering safety-, mission-, and business-critical systems since 1998.

For our clients, that means a hands-on local partner in Pittsburgh backed by a global engineering group of more than 1,400 people. Our combined experience spans medical devices, railway, aviation, energy, finance, defense, and space.

WHAT WE DO

Software Engineering & Product Development

Web, mobile, embedded, and real-time software from architecture through release.

Quality Assurance, Verification & Validation

Independent V&V, test automation, and hardware-in-the-loop testing.

Cybersecurity

Threat modeling, penetration testing, SBOMs, and secure-by-design engineering across IT, OT, and connected devices.

Cloud, Data & AI

Cloud architecture, DevOps, CI/CD, data analytics, machine learning, and computer vision.

Regulatory & Certification Support

Design controls, traceability, and certification support for FDA, MDR, IEC 62304, CENELEC, and DO-178C.

Consulting, Project Management & Delivery

Project management, staff augmentation, dedicated teams, turnkey delivery, and direct placement.

HOW WE ENGAGE

From individual specialists and dedicated teams to complete turnkey delivery, we scale to each client's needs. We also provide direct placement when you are hiring, and we are available for prime, subcontract, and teaming opportunities.

1994
FOUNDED

2026
JOINED CRITICAL SOFTWARE

1,400+
ENGINEERS WORLDWIDE

CMMI L5
PROCESS MATURITY

SELECTED CLIENTS

Bausch + Lomb · Medtronic · Dräger · UPMC · Midas Healthcare · Omnicell · Philips · Alstom · Siemens · Hitachi · Airbus · BMW Group · NASA · U.S. Department of Energy

CERTIFICATIONS & ACCREDITATIONS

QUALITY & PROCESS

CMMI-DEV Level 5 · ISO 9001 · ISO 13485 · Six Sigma

SECURITY

ISO 27001 · TISAX · Cyber Essentials Plus

INDUSTRY & GOVERNANCE

EN 9100 · NATO AQAP · Certified B Corporation · EcoVadis

Held at the Critical Software group level.

NAICS CODES

518210 · 541511 · 541512
541519 · 541611 · 541690
541715 · 541990 · 611420

PROUD MEMBERS OF

Pittsburgh Robotics Network
Pittsburgh Technology Council

ADVANCED CAPABILITIES

Cybersecurity

Secure-by-design engineering, threat modeling, SBOMs, and penetration testing across IT, OT, and connected devices. We recently ran a gray-box penetration test of a cloud-hosted medical imaging (PACS) platform against OWASP, MITRE ATT&CK, and NIST 800-115, then helped remediate what we found. Aligned to IEC 62443, IEC 81001-5-1, and the EU Cyber Resilience Act.

AI & Machine Learning

Dependable, explainable AI for diagnostics, predictive maintenance, and decision support, engineered with the traceability that safety-critical and regulated systems require, and aligned to the EU AI Act.

Robotics & Autonomy

Embedded, real-time, and functional-safety engineering for robotic and autonomous systems, built on deep RTOS expertise and active membership in the Pittsburgh Robotics Network.

Medical Devices & Life Sciences

Medical device software has to be as dependable as the device it runs on. We have spent three decades building, testing, and certifying it across the full product lifecycle: architecture and embedded or application development, independent V&V, built-in device cybersecurity, regulatory and quality engineering, and post-market support.

DOMAINS Infusion & injection systems · ventilators & respiratory devices · ophthalmic surgical tools · patient monitoring · medication management · diagnostics & imaging · radiation therapy · connected digital health

STANDARDS IEC 62304 · ISO 13485 · ISO 14971 · IEC 60601 · IEC 62366 · FDA 21 CFR (510(k), Part 820) · MDR

- **Medication safety & auditing.** Built the industry-first end-to-end medication waste disposal and auditing system, combining 360° HD verification, HL7 hospital connectivity, and a secure AWS audit trail to cut drug-diversion risk without disrupting clinical workflow.
- **Precision radiation oncology.** Designed and verified a DICOM-first dosimetry system delivering real-time, high-fidelity dose tracking to clinicians, built to IEC 62304 Class A with full regulatory traceability.
- **Ophthalmic surgical precision.** Integrated a proprietary intraocular lens (IOL) calculation algorithm into a global eye care leader's platform for surgical lens selection, encapsulating its logic behind a secure, versioned API.

TRUSTED BY Bausch + Lomb · Medtronic · Dräger · LivaNova · Midas Healthcare · Omnicell · Philips

Railway

We build and test embedded, safety-critical railway systems to CENELEC standards and the highest Safety Integrity Levels, spanning systems engineering and MBSE, embedded software, independent V&V, RAMS and certification support, condition-based maintenance, and cybersecurity for connected rail.

DOMAINS Rolling stock & onboard control · signaling & trackside (ERTMS/ETCS, CBTC) · command-and-control

STANDARDS CENELEC to SIL 4 · EN 50716 · IEC 62443 · ISO 27001

- **Next-generation train control.** Helped a global freight and metro rail leader stand up the CI/CD and Kubernetes deployment foundation for their next-generation train control platform, establishing pipeline architecture and standards their team now builds on independently.
- **Stadler Digital Labs.** Co-founded a joint venture with rolling-stock manufacturer Stadler, delivering safety-critical digital engineering and cybersecurity for rail at scale.

TRUSTED BY Alstom · Siemens · CAF · Hitachi · Deutsche Bahn · Stadler · Talgo

Energy

The energy transition is reshaping how power is generated, distributed, and consumed, and the software behind it has to keep pace. We pair decades of U.S. energy experience with deep expertise across next-generation grids and digital substations, advanced metering, EV charging and demand flexibility, digital twins, and OT cybersecurity.

DOMAINS Power grids & digital substations · smart metering & meter data · EV charging · industrial control

STANDARDS IEC 61850 · IEC 62443 · DLMS · NIS2

- **Industrial control & safety.** Designed and delivered a tablet-based control interface integrated with PLC systems for valve pressure testing and control in oil and gas operations, bringing modern, reliable UX to a demanding industrial environment.
- **Grid & metering modernization.** We build smart-metering, meter-data-management, and distribution-management software for utilities and metering providers, supporting the shift to digital, decentralized power.

TRUSTED BY U.S. Dept. of Energy · EDP · Landis+Gyr · Aclara · Secure Meters · myenergi

ALSO SERVING

Aerospace & Defense

Safety-critical avionics and defense systems, certification support (DO-178C, DO-254), and modernization of legacy mission and reliability systems.

Automotive

High-integrity software for OEMs, including full vehicle platforms delivered through our BMW Group joint venture.

Financial Services

Secure, scalable software for payments, case management, and fraud and risk platforms.

Space

Flight and ground software, simulation, and independent V&V (ISVV) for space agencies and prime contractors.



Let's build something that lasts.

IQ Inc., a Critical Software company
 2790 Mossdale Blvd #305, Monroeville, PA 15146
 (724) 327-3441 · iq-inc.com
 UEI LW6WGAUNA6S8 CAGE 3A8V3

