How customers rely on PTC solutions to realize better patient outcomes

Medtronic

Medtronic: *A Global MedTech Giant Implementing Agile Development with Codebeamer. Codebeamer has efficiently assisted the department in realizing its vision of scaling Agile while building processes to support compliance in this highly regulated industry. In effect, Medtronic's Neuromodulation department has completely reshaped its processes and has used Codebeamer to drive this change.*

CONMED

CONMED*, the leader in surgical and medical devices. is utilizing the Digital Thread to consolidate systems and harmonize their data improving design robustness with closed loop post market feedback and enabling a culture of quality across engineering, manufacturing, and service.*

FRESENIUS MEDICAL CARE

Fresenius*, a leader in dialysis products and services uses Windchill to leverage the model-based information created in engineering to assemble the right configuration of information needed to manufacture the product.*

GE HealthCare

GE HealthCare *needed to provide an advanced level of service to their customers. Their paper-based system required manually scheduling a field engineer's time and did not deliver the level of insight needed. Their goal was to improve the patient experience and reduce interruptions to medical care.*

Contact our Life Science Experts worldwide

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DIGITAL TRANSFORMS PHYSICAL

PTC at a Glance within Life Science

Patients rely on safe products and best outcomes. Life Science companies rely on PTC helping them to digitally transform their business and enabling the Digital Thread

30 years in business | 30,000 customers | 6,500 employees
96 offices in 28 countries | $2.5B annual revenue

Our Solutions that empower the Model-based Digital thread

Digital Defines Physical

CAD
creo
onshape

- Model Based Definition
- Simulation Led Design Powered by Ansys
- Additive Manufacturing
- Composites Design
- Design for Electrification / Harnesses
- Critical to Quality Parameter
- Generative Design
- Collaboration

Digital Controls Physical

ALM
codebeamer
pure variants from ptc

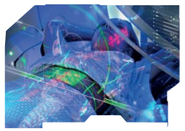
- Requirements Management
- Quality and Regulatory Management
- Risk Management
- Test Case Management
- Requirements traceability & validation
- Software Traceability
- Product Variability
- Product Traceability
- Agile Engineering

Digital Manages Physical

PLM
windchill

- Document Control
- Design Control
- Change Control
- Digital Product Definition
- Global Platform Modularity
- Digital Product Verification/Simulation
- Digital Design Transfer
- Configuration Management
- Regulatory Information Management
- CAPA and Nonconformance Management

Digital Connects Physical



IOT
thingworx
kepware

- Smart Connected Medical Devices (IoMT)
- Digital Performance Management
- Continuous Improvement (Digital LEAN)
- Standard Work Delivery, Execution, and Compliance
- Asset Utilization & Optimization
- Continuous Process Verfication
- Universal Connectivity

Digital Sustains Physical

SLM
SERVICEMAX a ptc technology
ptc servigistics
ptc arbortext

- Labeling and Service Information Management
- Installed Base Knowledge
- Service Contract Management
- Spare Parts Optimization
- Work Order Management
- Scheduling & Labor Planning
- Remote Assistance
- Technical Documentation
- CAD Based Quality Inspection

Digital Augments Physical

AR
vuforia

- Digital Mentor
- Digitally Connected Work Instructions
- Standard Work Definition
- Digital SOP
- AI-Enhanced Visual Inspection
- On the Job Training
- Remote Collaboration
- Industrial Metaverse
- Augmented Operator Guidance

End to End Digital Transformation for better patient outcomes

PTC boosts digital transformation for business continuity, operational excellence, asset availability, revenue growth, lower costs, and better patient outcomes. With improved access to data, employees find efficiencies, innovate faster, and improve quality.

Digital Thread Powers Enterprise Transformation

The life science industry is undergoing significant transformation. Digital technologies are being embraced more than ever, especially in rapid response to health crises. Regulatory landscapes and market volatility are shaping the industry, with companies needing to navigate these complexities to stay competitive. Health inequities are increasingly being addressed, with a growing focus on ensuring access to healthcare for all. Manufacturing and service are key trends with new technologies like IoT and automation becoming more prevalent. Patient centricity and supply chain management drive the demand for digital transformation.

Our position in Life Science

100%
of F500

Medical Technology Companies

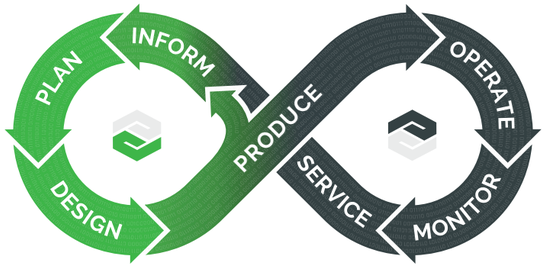
YOU CAN'T GO A SINGLE DAY WITHOUT ENCOUNTERING A PRODUCT ENABLED BY PTC SOFTWARE

The Life Science industry is a MAJOR part of the PTC Story with $240M in annual revenue in support of 100's of customers – why do our customers choose our Digital Thread platforms?

As the worldwide software leader supporting Life Science organizations converging physical and digital worlds, PTC enables actionable intelligence to optimally design, manufacture, and sustain Medical Technology, In-Vitro Diagnostic devices, Laboratory Equipment, and Pharmaceutical Manufacturers.

The Closed Loop Model-based Digital Thread

Market Driven **Requirements** | Ensuring **Design Rigor** | Connected **Manufacturing** | Asset-Centric **Service** | Improved **Sustainability**



Accelerated by **SaaS**

Market Driven Requirements

Software is now the core of products, enhancing user experience and enabling remote operations via IoT. Life Science clients seek top-notch Agile development tools for software, an integral and connected management of risks, integrated with a product Bill of Material encompassing both physical and digital elements.

Ensuring Design Rigor

To ensure physical product compliance, digital processes must adapt. MedTech companies, operating in a regulated industry, must formalize product requirements, link changes to these requirements, and demonstrate compliance through traceability and test cases. PTC Windchill and Codebeamer manage traceability between all development artifacts, ensuring the system functions correctly.

Connected Manufacturing

Windchill can generate a matching MBOM and factory work instructions, including 3D step by step instructions that can be augmented via our Vuforia AR technology. This bridges product and manufacturing engineering workflows, extending information to the shop floor.

Asset-Centric Service

Once a medical product is in use, it follows different rules and may require a technician for changes. Good service can boost satisfaction and repeat business, including consumables sales. PTC's comprehensive SLM solution portfolio sets the foundation for a product-as-a-service business model and optimized field service planning and execution.

Improved Sustainability

Sustainability should be considered in servicing, manufacturing, and designing medical devices. For Life Science Manufacturers, it's a lifecycle challenge with opportunities at each stage to reduce environmental impact. This is best tackled with a model-based digital thread approach.

Accelerated by SaaS

While SaaS is prevalent in enterprise software, it's less common in CAD and PLM. However, this is rapidly changing, leading to operational benefits, lower TCO, and eased validation burdens for our Life Science customers through our partnership with USDM.