Service Reliability and Upgradeability for Older Testing Machines

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Operating System lifecycles and their end of support influence IT decisions and, consequently, how machines are operated.

- 1 in 10 PCs still use Windows XP, which is not supported since 2014
- Most of the world’s PCs use Windows 7, for which support will be stopped in 2020
- Windows Vista was released about 5 years after Windows XP and Windows 10 was released less than 2 years after Windows 8.1 → faster developments require regular software updates

One of the buzzwords for the future is Industry 4.0. According to a survey of 300 experts, 80% of companies expect Industry 4.0 to impact their business model. These changes will affect how and why we test.

- Data analysis and integration of production into IT drives new production techniques to achieve increases in productivity
- Centralizing data storage is also a key driver
- Other aspects of Industry 4.0 include automation, interface between humans and machines, Internet of Things, etc.

1 Industry 4.0 How to navigate digitization of the manufacturing sector, McKinsey Digital, 2015

Source: By Christoph Roser at AllAboutLean.com under the free CC-BY-SA 4.0 license.
The modernization concept has grown steadily at an annual growth rate of 4.4% in the last 10 years. Investments in modernizing equipment result in a higher utilization of existing resources.

- Older equipment is usually in good condition but out of sync with advances in IT and electronics
- Investments in older equipment allow users to maximize functionality with new sensors and software features
- Testing laboratories sometimes look to modernizing equipment in combination with new investments
Long-Term Support Concept

We are your partners for long-term support – our products are a secure investment.

Purchase
- Consulting
- Demonstration
- Pre-Testing

Commissioning
- Preliminary acceptance
- Installation
- Instruction
- Initial calibration
- DQ / IQ / OQ

Operating the machine
- Maintenance / inspection / calibration
- Retrofitting
- Machine relocation

Modernization
- Machine return
- Procurement

- Hotline / support desk
- Repairs
- Spare parts
- Software services
- Training courses – ZwickAcademy
- Contract testing

Modernizations and Upgrades of Testing Equipment
Zwick guarantees availability of spare parts and service for 10 years from end of production, with a grace period of a further 5 years where possible.
Software & Electronic Compatibility

Electronics, test software and operating systems are directly related. Compatibility ensures a reliable level of support.

- **testXpert®**
  - Windows XP: V9.01 - V12.3
  - Windows Vista: V2.0 - V3.31
  - Windows 7: V2.2 - V3.31
  - Windows 8: V3.1 - V3.31
  - Windows 10: not available

- **testXpert® II**
  - not available
  - ≥ V2.2
  - ≥ V3.1
  - ≥ V3.5 / V3.6
  - ≥ V3.4

- **DUPS / MOPS**
  - not available

- **testControl**
  - V2.0 - V3.61
  - ≥ V2.2
  - ≥ V3.4

- **testControl II**
  - V3.4 - V3.61

- **testXpert® not available**

**Notes:**
- Windows 8.1 only from testXpert II Version 3.6
- Excepting hardness and special systems
- This matrix applies exclusively to electromechanical, static, stand-alone standard testing machines.
After modernization by Zwick any machine will be state-of-the-art and a genuine future-proof ‘Zwick’.

- **Maintenance-free AC drive**
  - for greater precision, outstanding control dynamics and high efficiency

- **Existing sensors and accessories**
  - remain in use and can be expanded via the extensive Zwick range

- **Modular testControl II**
  - measurement and control electronics for enhanced performance in the most demanding applications

- **Intelligent and reliable testXpert® III**
  - testing software for all applications
Modernization Concept

Zwick experts modernize machines either on-site or at Zwick’s Modernization Center.

Modernization by Zwick means:
- precision-fit design for new components
- replacement of all wear-parts
- all necessary adjustments carried out

On-site modernization:
- professional job in the minimum of time
- downtime during modernization limited to a few days
- warranty on all replacement parts

Modernization at Zwick’s premises:
- painting of load frame
- general overhaul of load frame
- warranty on complete machine
Modernization Concept

Zwick’s expertise can modernize any machine – made by Zwick or other manufacturers.

Zwick has performed more than 4,000 modernizations

almost 40% of all Zwick modernizations are performed on machines produced by other manufacturers (approx. 50 different brands)
Modernization Concept

Modernization technology for dynamic testing systems

testControl II & testXpert R

- state-of-the-art technology for single-axis testing systems
- operator safety maximized by 2-channel safety circuit and operating-mode selection-switch for setup and testing modes
- modular design with 6 freely selectable slots for maximum flexibility

Control Cube servo controller & Cubus software

- simple operation of complex testing systems
- modular software structure for optimum adaptation to testing requirements
- ideal for multiaxial test benches
Summary

Modernization of old testing equipment is driven by growing or changing test needs. Reevaluating these needs are critical in determining the best solution for an individual situation.

- Trends in IT and changing industry needs drive the modernization concept

- Modernizations allow testers to increase utilization of existing equipment by adding software features and new sensors

- Guaranteed spare part availability is renewed and reliable due to the use of new electronic and drive system components
Thank You!