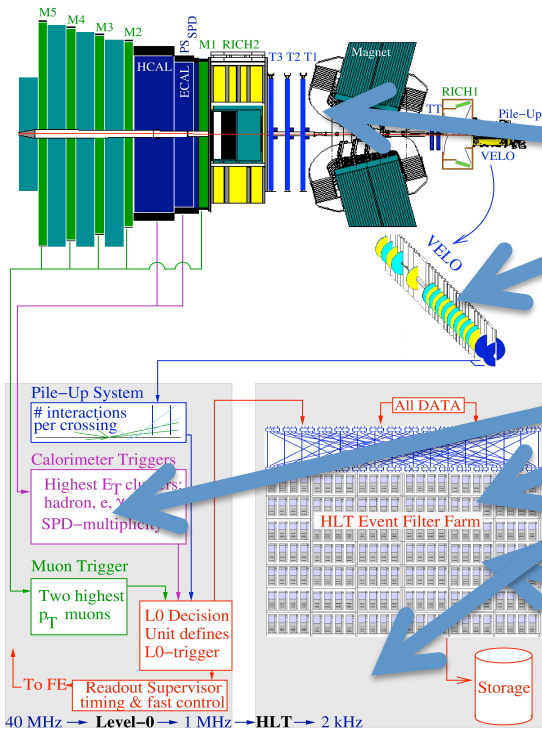


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LHCb has a large online IT infrastructure with thousands of servers and embedded systems, network routers and switches, databases and storage appliances. These systems run a large number of different applications on various operating systems. The dominant operating systems are Linux and MS-Windows. This large heterogeneous environment, operated by a small number of administrators, requires that new software or updates can be pushed quickly, reliably and as automated as possible. We present here the general design of LHCb's software management along with the main tools: LinuxFC / Quattor, Microsoft SMS and CMT



Experiment Control System (ECS) PVSS II on Linux SLC4 /5 and Windows 2003 in 32-bit  
 JCOP / PVSS components managed as "Framework Components"

More than 1500 servers, embedded systems, consoles, computer nodes (~ 100 Windows, the others Linux). OS and standard applications (from word-processing to web-servers), Several 100 user accounts, security settings.  
 Managed using MS-SMS and Linux/FC Quattor

High Level Trigger: Physics Application software  
 Dozens of packages: Scientific Linux CERN 4 /5 32/64-bit managed using CMT (in the same way as on the Grid)

	Quattor	SMS	CMT
Installation	local	local	central
Configuration	yes	no: use group policies	yes (environment)
Version management	strong (central DB)	weak (registry)	weak (naming convention)
Package format	RPM	MSI	tar-ball
Distribution	http	proprietary	http
Support for multiple installed versions	rudimentary	rudimentary	strong
Installation speed	fast	fast	n / a
Automatic dependency resolution	weak	no	good (but handmade)

