National Cancer Institute

caBIG™ cancer Biomedical Informatics Grid ™

Build and Deploy Update

CaArray 2 Build and Deploy Pilot project - Draft

August 1, 2007

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

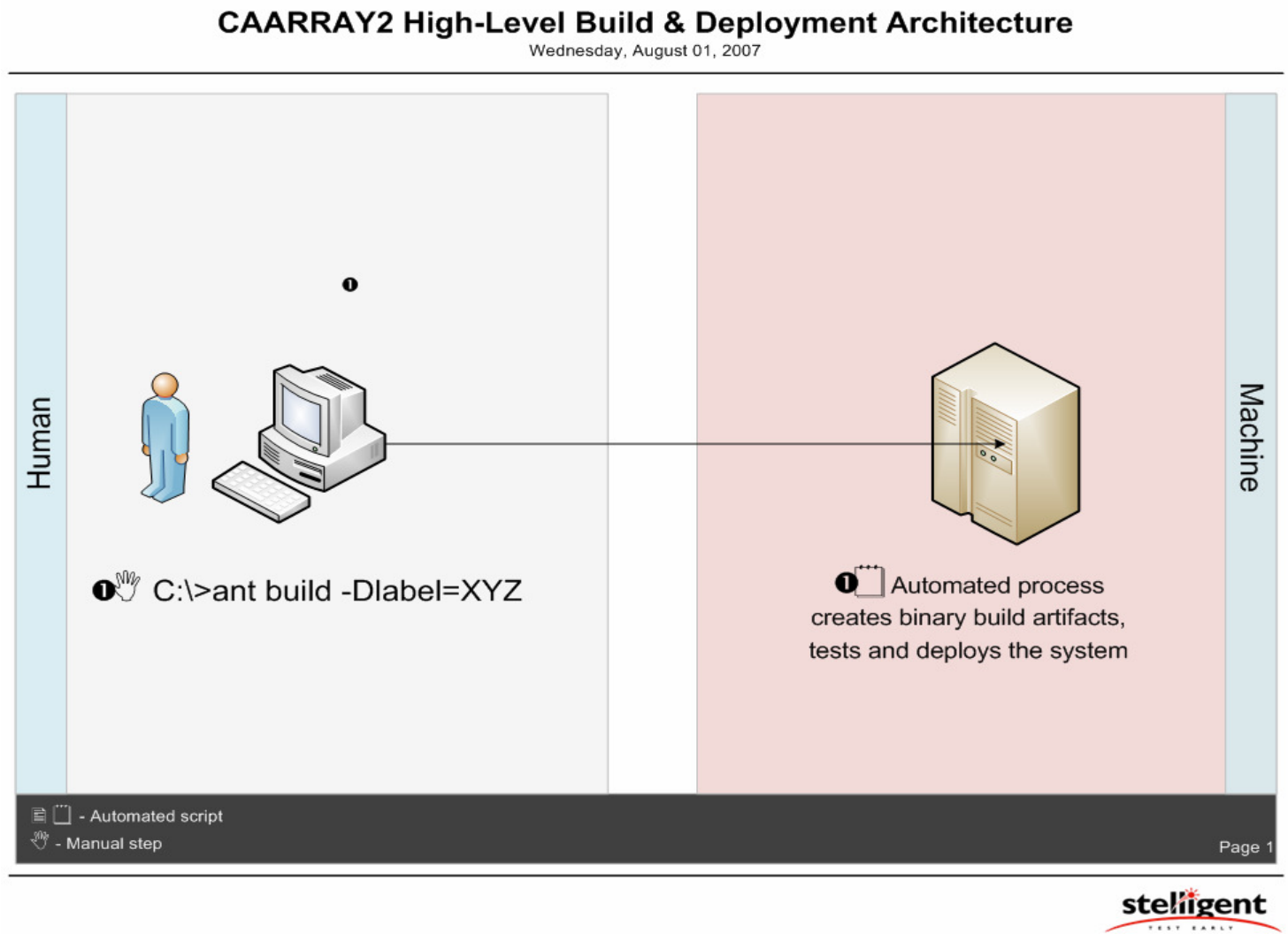
National Institutes of Health

Goal

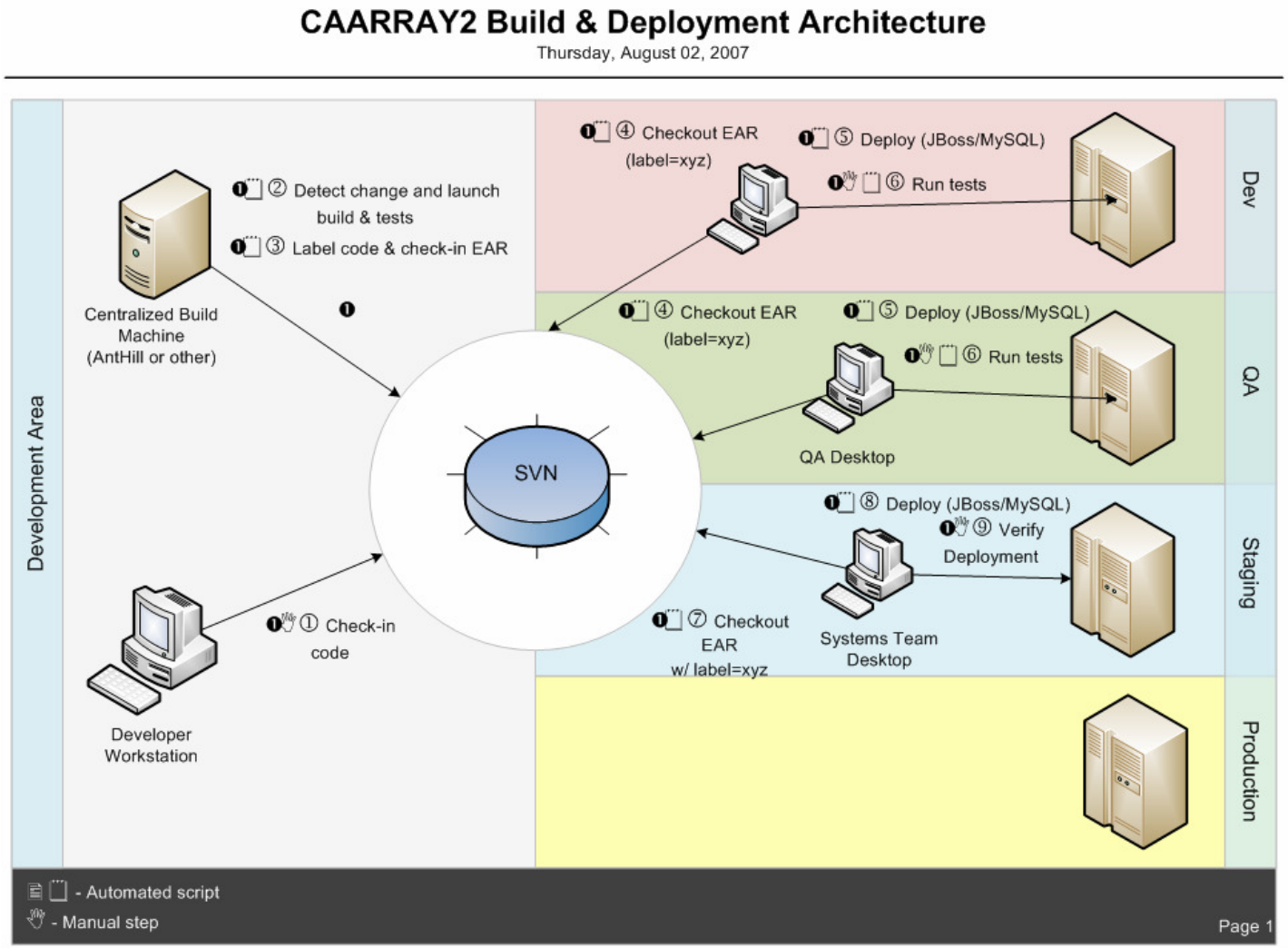
"Make Deployment the click of a button"

- **What:** ***Speed up delivery time by decreasing manual processes***
  - Integrate configuration into the build process rather than requiring manual intervention
- **How:** ***Convert attributes (currently maintained in Word documents) into files that are machine-readable (an automated system)***
- **Why:** ***Enable caArray 2 to adapt to changes and deliver software faster with fewer deployment errors***

User Actions



Proposed Build and Deployment Architecture



caArray 2 – Build and Deployment Steps

1. Developer checks-in code to SVN
2. A centralized integration build machine running a build server (AntHill, etc.) on Linux detects the change and launches an integration build
3. If the build is successful, build server checks-in the EAR (or moves to managed directory) into SVN and labels the code and the EAR
4. QA runs an Ant script such as `ant deploy-qa -Dlabel=xyz` from the centralized build machine. This script effectively checks-out the packaged EAR file from SVN
5. The same Ant script configures the QA environment servers JBoss and MySQL, runs the database integration scripts and deploys the EAR file to the JEE container (JBoss)
6. Similarly, the script runs a suite of automated tests. QA performs a suite of manual tests as necessary