

High-Energy Digital Radiography

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Y-12 is engaged in a far-reaching modernization effort. Several image acquisition devices have been installed in radiography operations to implement a digital radiographic capability. This capability includes the direct acquisition of digital images and the ability to digitize existing film radiographs. When commercial products do not meet demanding requirements, applied research and development projects are initiated to advance digital radiography.



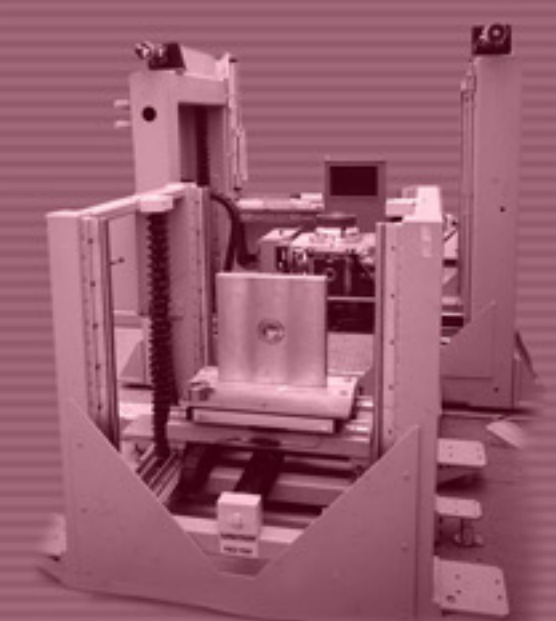
Analyst Workstation



Film Digitizer

Benefits of digital radiography include:

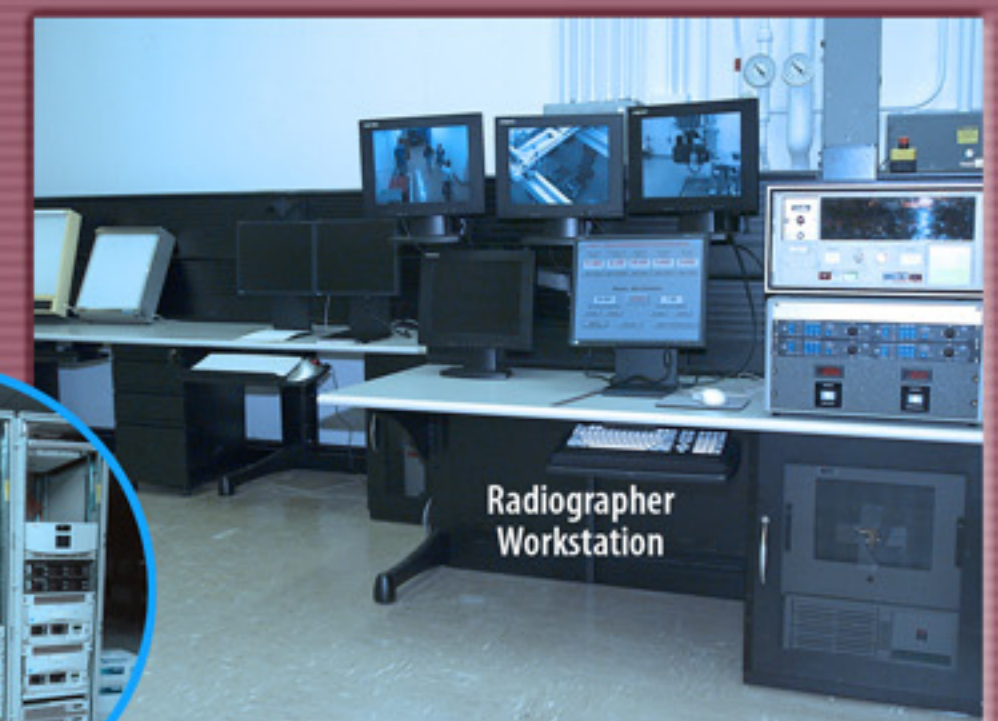
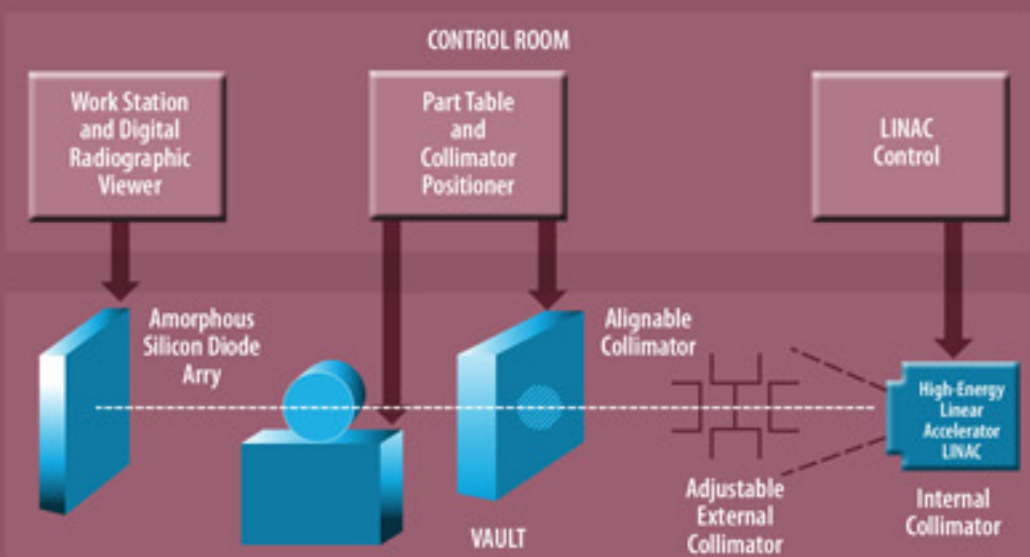
- Cost savings in labor, film, and chemicals,
- Reduction in processing wastes
- Improvements in the evaluation and accuracy of radiographic images by using image processing techniques,
- In-process decision support,
- Nuclear Weapons Complex-wide access, and
- Collaboration with design agency customers to promote anomaly evaluation and electronic sharing.



- Amorphous silicon diode array
- Part positioner
- Alignable collimator

Why needed:

- Initially, to enable part alignment without exposing/processing film
- Improve cost, safety, and efficiency in the evaluation and certification of products



Computer and Storage Area Network
 1 Gigabit/sec Network

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