Integrated Tower Systems

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Past and Current State of tower integration

Past

- Paper strips, verbal coordination
- Weather gauges, notam printer
- Procedures manuals quick reference aids
- SMR with Flight data tags
- Air surveillance by use of approach display
- Light control pannel

Current

- Electronic strips with digital co-ordination to approach units
- Information system
- ASMGCS
- Air Surveillance displays with Approach co-ordination
- Digital RWY lighting displays and control

What is an Integrated Tower

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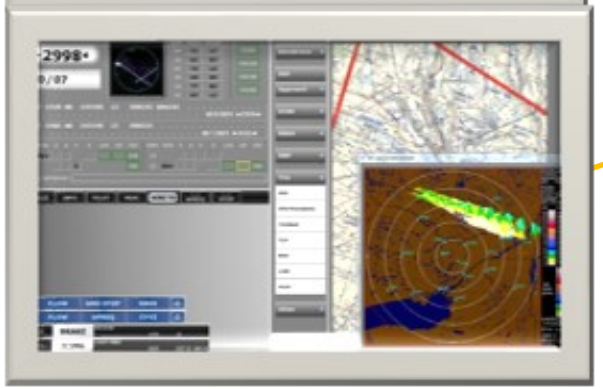

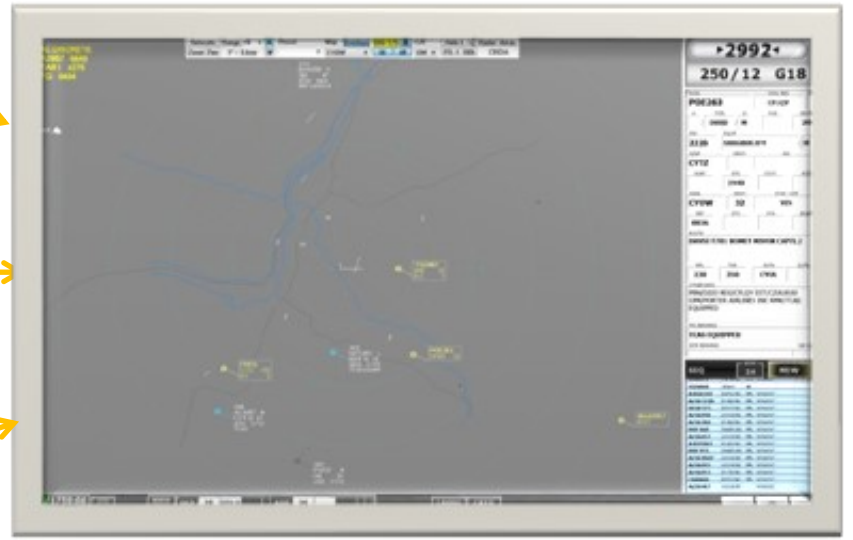

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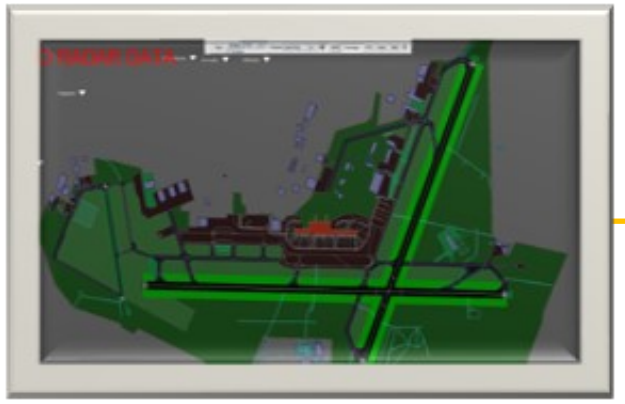

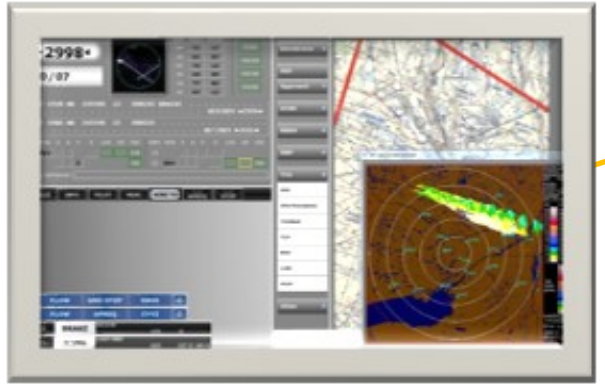

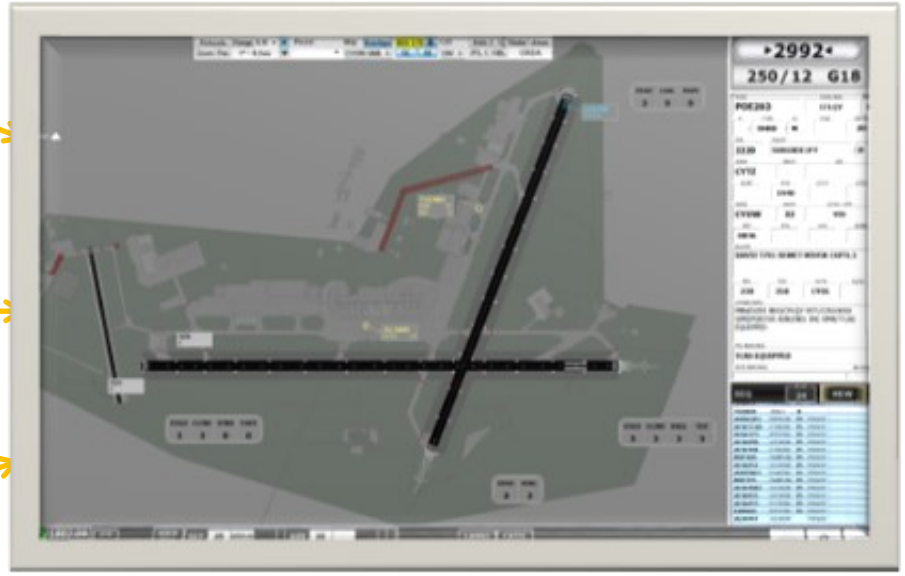

Technical Benefits of Integration

- Reduces the number of software platforms
- Reduces the overall Hardware required in a control tower and diversity of equipment
- Can allow the reduction of a controller space requirement
- Reduces technical staff training as reduction of systems in the tower

Operational, Safety benefits of Integration

- Single HMI color and functions for all controller interactions
- System only displays positionally required information for phases of flight with options to display additional information
- All data or control functions can be configured to be displayed on any type of display
- Information is provided in the correct context and the associated with the aircraft on a display
- Mundane Tasks are completed by the business rules reducing controller workload
- Alarms are displayed in a situational context
- Safety nets go beyond just surveillance-based information

Future of the Integrated Tower

- The move from an integrated tower to a digital tower is a smaller step
- The addition of Artificial intelligence into the business rules portion of the ITS
- The extension of data link to reduce voice communications
- The addition of voice recognition so controller verbal control commands enter data into the system