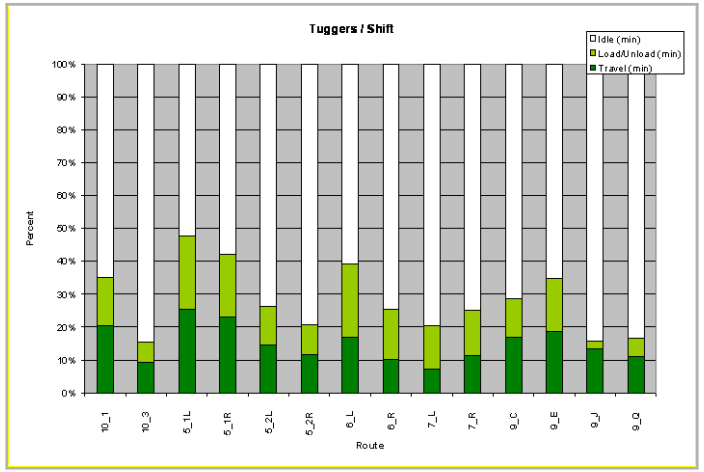
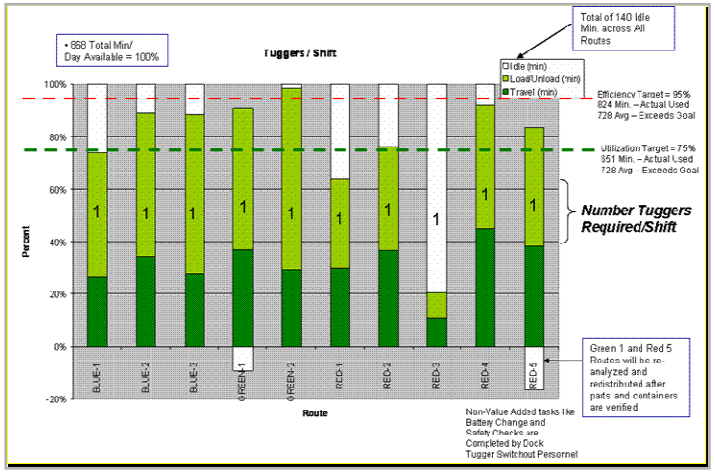
Case Study – Intl. Assembly Plant

- Purpose/Scope – Material Flow:
  - Optimize tugger and fork flow in Assembly and Body Shops.
  - Before:
    - Manpower Required: 17 Tugger Drivers (fulls and empties). Because driver does not pick up empties, another 3 route drivers are required.
    - Efficiency: well under 95% target .
    - Utilization: well under 75% target .
    - Volume: well over 100%.
    - Approx 4,000 Idle Minutes per Shift across all Bulk Routes.
    - Bulk and Tote use the same routes and are sometimes tugged on the same route. This causes congestion, delay for load/unload of dollies at the stations and potential production downtime.
- Results/Recommendations/Benefits:
  - After optimization:
    - Manpower Required: 10 Tugger Drivers (driver puts out fulls and brings back empties in the same route).
    - Efficiency: ***within 95% target*** .
    - Utilization: ***over 75% target*** .
    - Volume: ***under 100%.***
    - Approx ***140 Idle Minutes*** per Shift across all Bulk Routes, a 2857% improvement!
  - Improve ***20 process documents and Unit Load Datasheet format*** for all aspects of material movement at both the Assembly Plant, on-site Logistics and Deconsolidation Center.
  - ***Train engineering staff*** to complete all aspects of manufacturing and material handling engineering.

Before:



After:



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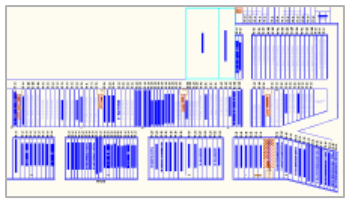
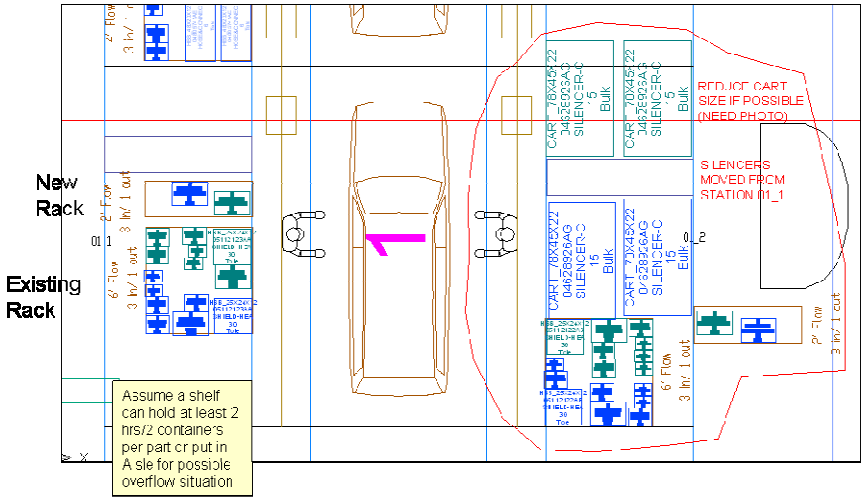
Case Study – Intl. Assembly Plant

- Purpose/Scope – Line Display Layouts:
  - Station Review, Buyoff and Line Display Status for TCF, Engine and Body Shop.
  - Validate and Setup Line Display
  - Review and Buyoff Buffer Area
  - Review and Buyoff Material Flow Routes
  - Develop Process Documents, Min/Max Calculations, SPD
- Results/Recommendations/Benefits:
  - Reviewed ***191 stations*** as completed
  - Reviewed buffer area – xx SF max.
  - Reviewed ***24 material flow routes***
  - Developed and trained customer staff on ***8 critical process documents***:
    - SPD Identification and Buyoff Process Flow SPD Broadcast Window and Float Calcs.
    - Station Validation and Buyoff Process
    - Line Display Min./ Max calculation/process
    - Minimum Stock quantity and Kanban quantity calculations with Process
    - Material Move Request Form and Process
    - Small Lot Label Database Design/Training
    - Container Change Request form and Process

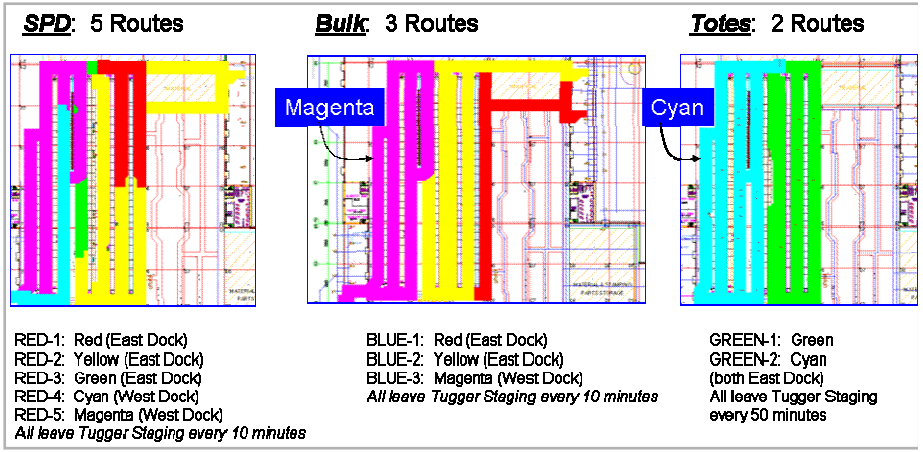
Buffer:



Station Layouts:



Material Flow Routes:



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Case Study – Intl. Assembly Plant

- Purpose/Scope – Containerization:
  - Review and Buyoff of China Team for Line Display Container Issues and Rightsizing.
  - Develop Processes, Training, Review.
  - JIT Center layout validation, customer survey, part quality identification, scorecard development, process documentation and training.
- Results/Recommendations/Benefits:
  - Reviewed ***2025 part numbers*** for Right Sizing and Container Issues.
  - Developed ***4 Containerization processes***:
    - Rack ***System days and fleet size*** calculation Validation.
    - ***Container Selection*** and Validation process.
    - ***Rack Development*** and Approval Processes.
    - ***Unit Load Datasheet*** development.
    - Provided ***Training Documents & Training***
    - ***Open Issues*** form Update and Open/ Close Issue Process
  - Completed ***123 JIT Center Items***:
    - Reviewed and ***Revised*** JIT Center ***existing process documents***
    - Validated ***min./ max calculations***
    - Developed ***customer survey***
    - Developed process for ***signaling when repacked*** small lot containers ***reach below minimum levels***.
    - Provided ***Training Documents & Training***

Before:

After:

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