

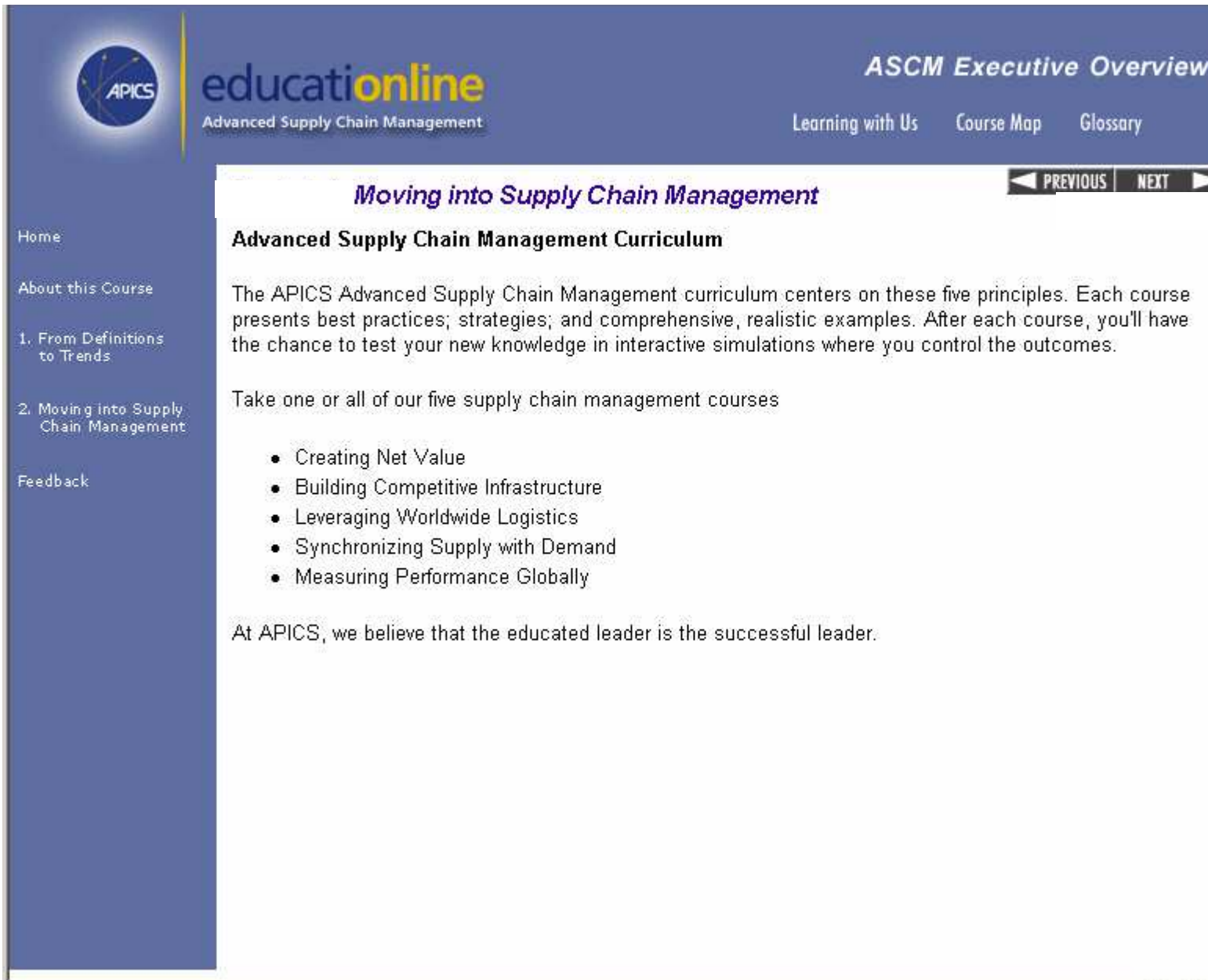
Northeast Supply Chain Conference

Advanced Supply Chain Management Case Study: “Decentralizing the Tool Crib”

How the Principals within the APICS Advanced Supply Chain Management Courseware were used with a successful systems implementation where service and employee utilization went up, inventory went down.

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“Decentralizing the Tool Crib”



The screenshot displays the APICS educationonline website. The header features the APICS logo and the text 'educationonline Advanced Supply Chain Management'. Navigation links include 'ASCM Executive Overview', 'Learning with Us', 'Course Map', and 'Glossary'. A sidebar on the left contains links for 'Home', 'About this Course', '1. From Definitions to Trends', '2. Moving into Supply Chain Management', and 'Feedback'. The main content area is titled 'Moving into Supply Chain Management' and includes a 'PREVIOUS' and 'NEXT' navigation bar. The text describes the curriculum's focus on five principles and lists the following courses:

- Creating Net Value
- Building Competitive Infrastructure
- Leveraging Worldwide Logistics
- Synchronizing Supply with Demand
- Measuring Performance Globally

At APICS, we believe that the educated leader is the successful leader.

“Decentralizing the Tool Crib”



1. **Access** - Authorized users have 24-7 access to supplies at POU cabinets.
2. **Reorder** - Supplies are automatically re-ordered at pre-set minimums
3. **Delivery** - Suppliers direct replenishments to specific cabinet(s)
4. **Restock** – Authorized technicians restock daily

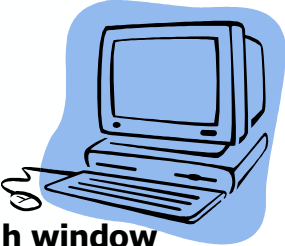
“Decentralizing the Tool Crib”

KanBan

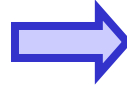
Tool Crib

General Supplies

Tooling



- Operators order through window
- Attendant :
- Takes order through window
- Retrieves item from tool crib
- Scans bar code and associate I.D.
- Downloads scanner daily, inputting information into Inv Control system
- System generates replenishment orders
- Attendant requisitions and places orders with suppliers
- Attendant restocks replenishments



- Tooling/supplies available in business unit 24/7.
 - Tool Crib attendants download scanner to system twice daily
 - System generates replenishment orders by location
 - Attendant requisitions and places orders with suppliers
 - Attendant restocks replenishments
- This stage reduces operators time away from machine.*

Supply on Demand System

- Tooling/Supplies available in business unit 24/7
- Operators use touch screen to make withdrawals.
- Supplier receives restock notice (Email or PO) when item is at order point.
- Upon receipt attendant restocks replenishments.

This stage drastically reduces Operators time away from machine, reduces needs for requisitions & purchase orders. Changes the roll of the tool crib forever.



“Decentralizing the Tool Crib”

Summary Results

- 24/7 X 365 access
 - O/H inventory reductions
 - encourages accountability
 - solidifies supplier partnerships
- **\$ Savings in tool spend 32%**
 - **Downtime 85% reduction**
 - **Current Inventory Value – 15% reduction**
 - **Avg. Wkly Line Item Stock Adj. Reduction 88%**
 - **Requisitioning & Purchasing Cost reduction 71%**



*ASCM Principle 1:
Supply Chain (Principles)
Create Net Value*

“Decentralizing the Tool Crib”

Prerequisites

➤ Current inventory data accurate

-Cell Usage Quantities
(daily rates)

-Max – Mins
(fine tuning reduces cabinet size)

➤ Supplier’s “In Control”

-Supplier Reduction Plans

➤ Supplier Training

-Three Way Partnership:
Us
Supplier
DispenseSource

***ASCM Principle 2:
Create a
Competitive Infrastructure***

“Decentralizing the Tool Crib”

Implementation considerations

Soft side issues

User issues

Technical issues

Soft side issues:

User awareness/familiarity with cell level MRO control

Dedicated commitment from current MRO administrators:
Tool Crib, MRO Buyers, MRO management

Cell Managers commitment to time and responsibilities of training

Corner office approval & support

“Decentralizing the Tool Crib” **Implementation considerations**

Soft side issues

User issues

Technical issues

User issues:

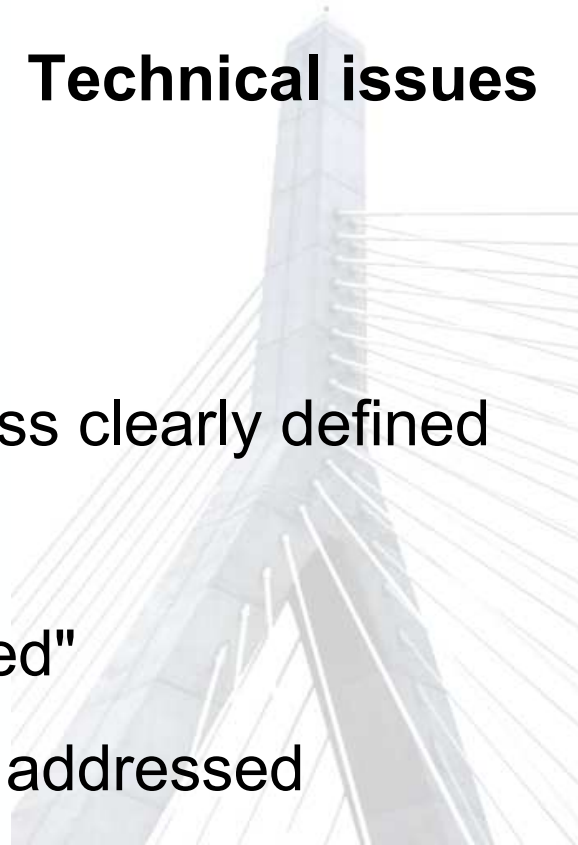
Item usage by cell

Replenishment process clearly defined

Suppliers "on board"

Cabinet area "prepared"

Custom report needs addressed



“Decentralizing the Tool Crib”

Implementation considerations

Soft side issues

User issues

Technical issues

Technical issues:

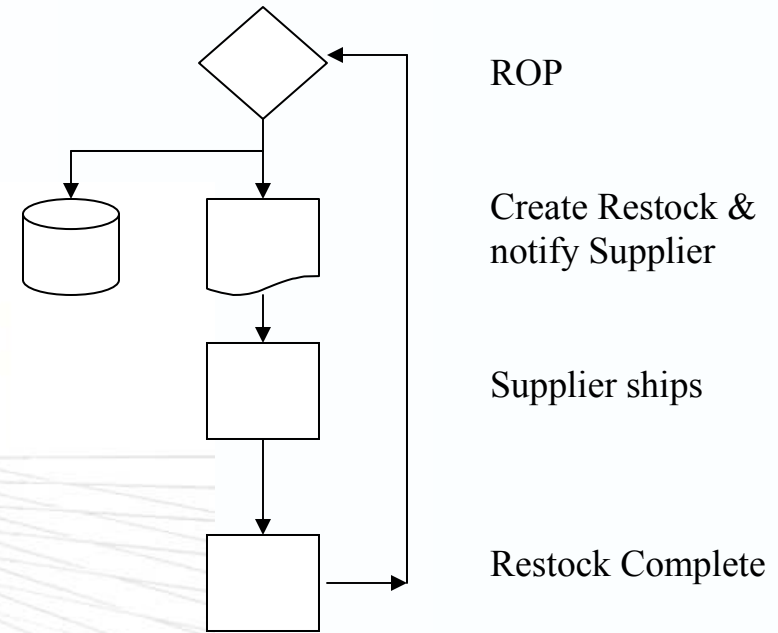
Internet access via Ethernet communication using IP address or phone drops

Complete User & Item List in DispenseSource template (excel)

Confirmed location and power for units

***ASCM Principle 3:
Leverage World Wide
Logistics***

“Decentralizing the Tool Crib”



Replenishment Methodologies:

- Establish Reorder Points (ROP)
- Establish Reorder Quantities (ROQ)
- Establish Blanket PO's where applicable
- Setup / Train Users (Internal /External) on
e-Mail Usage
Report Usage

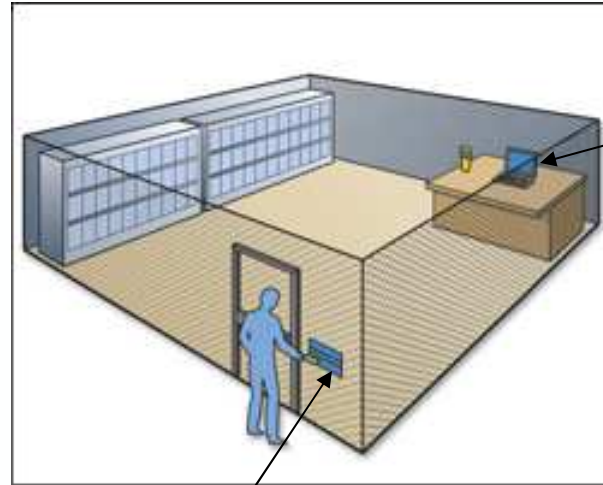
***ASCM Principle 4:
Synchronize Supply
with Demand***

“Decentralizing the Tool Crib”

Virtual-Cribs (bulk & secondary support items).



Cabinet



Scanner PC
& cradle

Optional Door Ctl. &
Card Reader

Using the DispenseSource Virtual Crib...

Authorized associates transact within a “mega-cabinet”...

The storeroom itself!

“Decentralizing the Tool Crib”

Crib startup Steps

- 1. Usage Analysis:**
 - Overall annual usage analysis for Blanket Orders**
 - Create Blanket Order Guidelines**
 - Departmental Usage analysis for**
 - Cabinet sizing**
 - Identification of “Others”**

- 2. Calculate Reorder Quantity (ROQ) At Department Level**
 - Use EOQ formula and/or Day’s supply**

- 3. Day’s supply: Caution on “High” ROP quantities**
 - Cabinet Max Inv Cube EQLT a Tissue Box**
 - OR**
 - Inventory \$\$ too High**

“Decentralizing the Tool Crib”

Crib startup Steps

4. **Calculate Safety Stock at Departmental Level**
Typically use x-days supply
5. **Calculate Reorder Point (ROP) At department Level**
Demand During Lead-time + Safety Stock
6. **Calculate Max Inventory (PAR):**
ROQ + ROP
For Cabinets Ensure total Cube is EQLT a Tissue Box.

“Decentralizing the Tool Crib”

Crib startup Steps

7. Excess:

Sum of MAX inventory, All items, All cabinets may be less than current on hand.

Disposal / Use-up plan required

8. Other items

Other items historically stored in the tool crib but withdrawn by “Others”.

9. “Others”

Engineers:

Open all cabinets to Engineers via security

Unnecessary “Others” :

Move to “others” space & control

OR

Obsolete

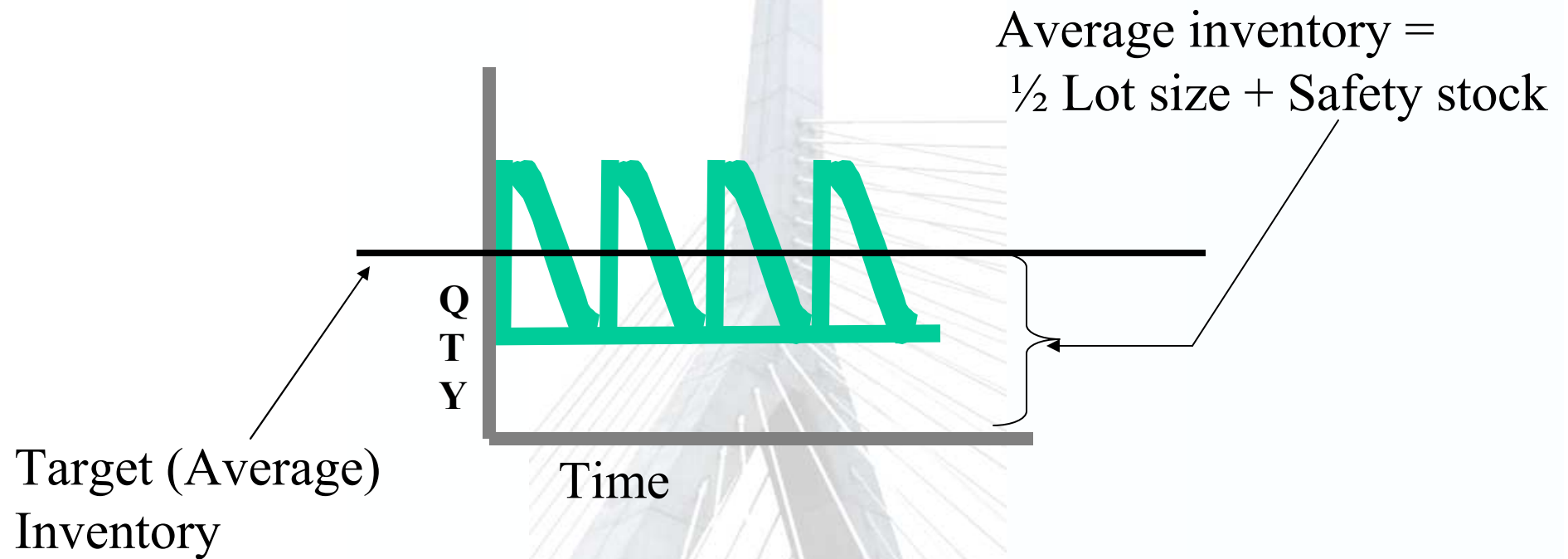
Necessary “Others” :

Self service “Virtual Crib”

“Decentralizing the Tool Crib”

Operate the Supply Chain with Goals & Targets

Target Inventory Model



***ASCM Principle 5:
Measure Performance Globally***

“Decentralizing the Tool Crib”

