

# Pin Point Update

Presentation to the PSMC

03 November 2009

# Agenda

- Pin Point review
- Growing level of interest
  - Training at DMSMS, DSCR, Tinker, etc
  - Item Reduction at DSCP
  - OEM and Government Data
    - Impact of OEM data on DMSMS
    - MIL-STD-3018 programs and focus on non-electronics parts
- Changes in the data behind the tool
- Technology update

# Pin Point and MIL-STD-3018

- MIL-STD-3018 Objectives. The objectives of a Part Management Program are to reduce logistics footprint and total life-cycle cost, and to increase logistics readiness by:
  - a. Promoting interoperability.
  - b. Enhancing the interchangeability, reliability, and availability of parts.
  - c. Minimizing diminishing source impacts and parts obsolescence.
  - d. Assisting in meeting end item performance.
  - e. Assisting with parts selection and qualification procedures.
  - f. Minimizing the proliferation of parts and drawings through standardization.
- Pin Point helps meet these objectives by:
  - a. Making it easy to find similar parts based on their properties
  - b. Facilitating grouping of parts based on common usage, manufacture, or supply
  - c. Identifying potential alternatives to NSNs available in the commercial supply chain
  - d. Updating critical data such as QPD, ASSIST and GIDEP data every day

# In addition, Pin Point has more data. Standardization facilitates part selection

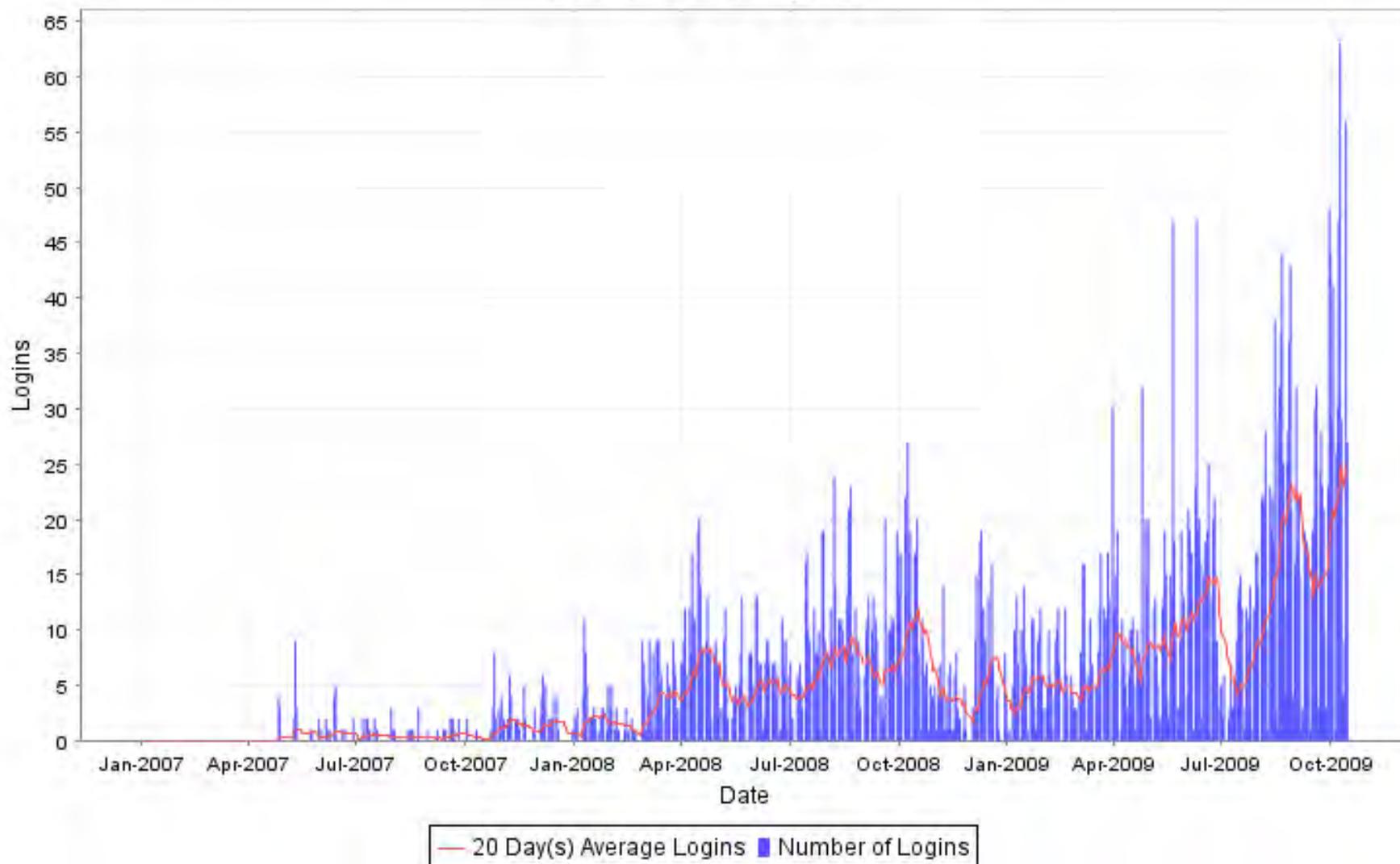
<b>Enhanced Data</b>	
<b>More Weapon System Data:</b> Increased number of NSNs associated to Weapon System (WSDCs)	1,131,387 NSNs
<b>More Specification Data:</b> Increased number of NSNs associated to specification documents	2,485,695 NSNs
<b>More Manufacturing Process Data:</b> Number of NSNs associated to manufacturing process	2,027,519 NSNs
<b>Commercial Items on Government Contract:</b>	64,700,000
<b>Commercial data harvested from the WWW :</b> Number of parts / Number of Attributes ...Growing Daily.	~2,000,000 / ~30,000,000



# XSB Inc.

Turning Data Into Actionable Assets

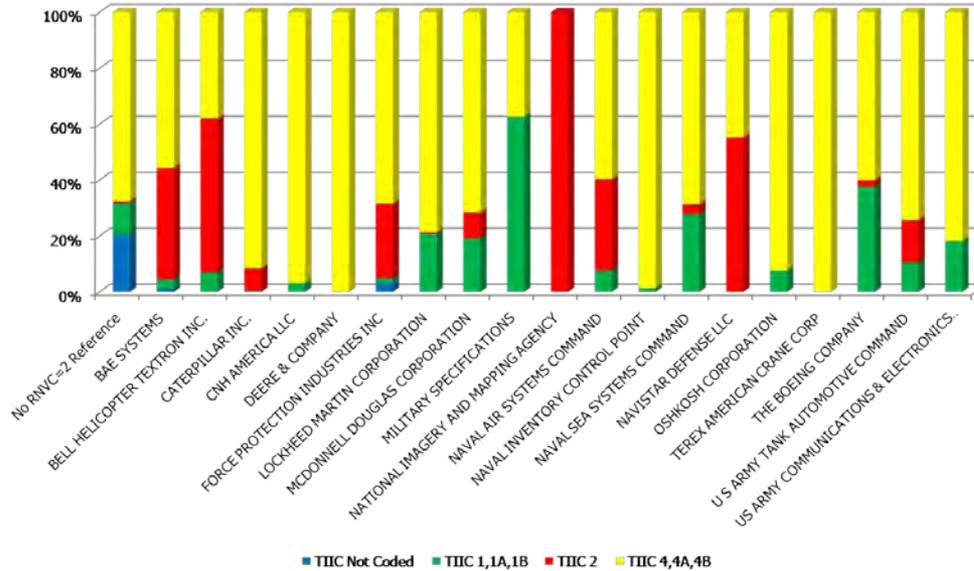
## Number of Logins



## FY07 Actual DSCP Benefits (O-Rings)

- Five Subsurface Weapons System Programs
  - Total of 3,485 NSNs under item reduction review.
  - 541 NSNs finished initial matching using Pin Point on 12/31/07 (15% of study completed)
  - Results indicate 338 non-preferred items identified for a 62.5% reduction in inventory when approved by Navy
  - Families are keyed to DLA Program requiring a 95% availability requirement
  - *Current estimated Life Cycle Cost Avoidance \$583,726 for 541 NSNs studied*
- Additional Intrinsic Benefits
  - Acquisition workload reduction
  - Possible long-term contract development
  - Less supply cubic space, weight, inventory control, requirements on-board vessels
  - Increased availability from DLA stock of family heads

**NSN Count by Type Item Identification Coding and OEM**



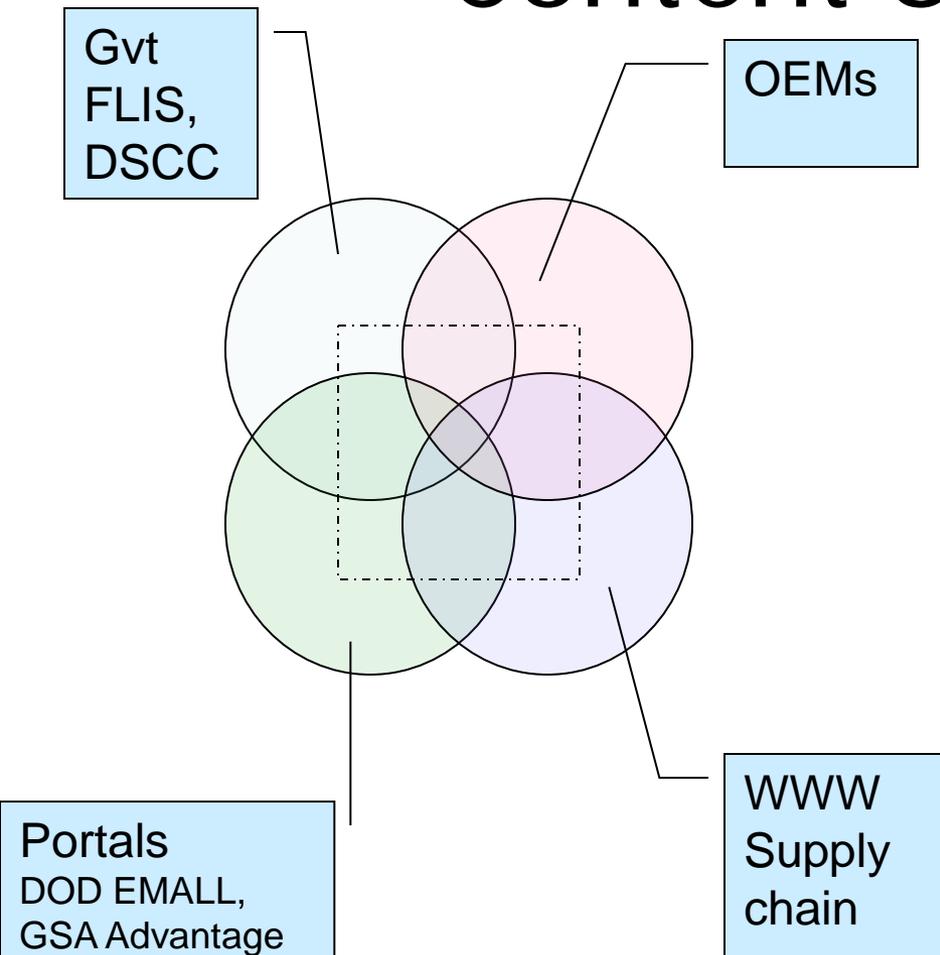
**Poorly described items from the primes create logistics nightmares down the road.**

**Especially , late in the system life cycle when PBL support become less attractive.**

- **39% of PACE rejects are CAGED to Weapon System Integrators(WSI).**
- **27% of all rejects are sole source with these WSIs.**
- **Many of these items appear to be eCommerce commodities and not proprietary parts**

**This problem can only be solved through improved information sharing. A number of primes are exploring the idea with XSB and DLA HQ**

# Content Switzerland



- Can sharing information about common commodity parts help reduce cost while improving lead time, and readiness for the War Fighter?
- Pin Point seems to have unique advantages by providing a scalable automated approach

Focused Crawlers

Ontology to Ontology (O2O)

Specification Mining

# **TECHNOLOGY UPDATE**

# Technology Update

## Focused Crawlers

- Optimized Web Crawlers
- Provides rich and structured, but not standardized data.

## Ontology to Ontology

- Emerging, automated method to map between attribute schemas (Gov-Com; Com-Com..)
- Provides rich and standardized data

## Spec Mining

- Utilized Spec PN's to infer MRC's for NSNs
- Enriched NSNs and identified potential opportunities between the MIL-STD and the FIIG

## Focused Crawlers

- Optimized Web Crawlers
- Provides rich and structured, but not standardized data.

- XSB can now launch a focused crawler just by providing a URL to the system.
- Focused Crawlers put the Web in a database reducing the cost of part research activities dramatically.
- During Focused Crawler software development information on 2 Million parts have been harvested in saved in Pin Point

# Limit Switch, Cat Whisker, SPDT

Electrical > Switches > Limit-Interlock Switches

Limit Switch, Heavy Duty, Style Cat Whisker, Height 9.07 In, Depth 1.79 In, Width 1.55 In, Replacement Body 2EG10, Replacement Head 2EG83, Replacement Receptacle 2EG21, Contact Type SPDT, Movement CW/CCW, Voltage 600 VAC/VDC, Amps 10, NEMA Rating 1, 2, 4, 6, 6P, 12 and 13, Operating Temp Range 0 To 185 F, Operating Force 7 In-Oz, Actuator Length 5.05 In, Standards UL/CSA/CE

Grainger Item #	2UYP2
Price (ea.)	\$129.85
Brand	SQUARE D
Mfr. Model #	9007C52L
Ship Qty.	1
Sell Qty. (Will-Call)	1
Ship Weight (lbs.)	0.97
Usually Ships**	1-3 Days
Catalog Page No.	326
Country of Origin	Mexico



**Accessories**

**Optional**

>More.

Switch, Limit, Body, SPDT

Grainger Item #: 2EG10

Price (ea.): \$88.95

Brand: SQUARE D

Qty.

**Add to Order**

<b>Tech Specs</b>	Additional Information	Notes & Restrictions	MSDS	Requirements
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Item	Limit Switch
Type	Heavy Duty
Height (In.)	9.07
Depth (In.)	1.79
Width (In.)	1.55
Replacement Body	2EG10
Replacement Head	2EG83
Replacement Receptacle	2EG21
Contact Type	SPDT
Movement	CW/CCW
Style	Cat Whisker
Voltage	600 VAC/VDC
Amps	10
NEMA Rating	1, 2, 4, 6, 6P, 12 and 13
Operating Temp. Range (F)	0 To 185
Operating Force	7"-Oz
Actuator Length (In.)	5.05
Standards	UL/CSA/CE

part number	company	attribute	value	url	crawled
9007C52L	SQUARE D		Class 9007 Heavy-Duty Limit Switches	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D		Contacts rated 10A	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D		Limit Switch, Heavy Duty, Style Cat Whisker, Height 9.07 In, Depth 1.79 In, Width 1.55 In, Replacement Body 2EG10, Replacement Head 2EG83, Replacement Receptacle 2EG21, Contact Type SPDT, Movement CW/CCW, Voltage 600 VAC/VDC, Amps 10, NEMA Rating 1, 2, 4, 6, 6P, 12 and 13, Operating Temp Range 0 To 185 F, Operating Force 7 In-Oz, Actuator Length 5.05 In, Standards UL/CSA/CE	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D		Limit Switch, Cat Whisker, SPDT	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Actuator Length (In.)	5.05	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Amps	10	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Contact Type	SPDT	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Depth (In.)	1.79	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Enclosures	NEMA 1, 2, 4, 6, 6P, 12, and 13 (IP65, IP66, IP67)	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Footnotes	4	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Grainger Item #	2UYP2	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Height (In.)	9.07	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Image -	<a href="http://images.grainger.com/B284_21/images/products/2F992.JPG">http://images.grainger.com/B284_21/images/products/2F992.JPG</a>	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Movement	CW/CCW	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	NEMA Rating	1, 2, 4, 6, 6P, 12 and 13	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Operating Force	7"-Oz	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Operating Temp. Range (F)	0 To 185	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00
9007C52L	SQUARE D	Price (ea.)	\$129.85	<a href="http://www.grainger.com/Grainger/items/2UYP2">http://www.grainger.com/Grainger/items/2UYP2</a>	5/10/2009 0:00

**Focused Crawlers →  
Putting the Web into a  
Database**

# How better utilize web data

- Information collected by Focused Crawlers includes:
  - Technical part characteristics
  - Links to product images, MSDS, Environmental information – RoHS, etc
  - Product commerciality
  - Price & availability
- Pin Point has the ability to match this data to NSNs or legacy data. This provides a richer view to help with MIL-STD-3018 part selection.

## Ontology to Ontology

- Emerging, automated method to map between attribute schemas (Gov-Com; Com-Com..)
- Provides rich and standardized data

- During O2O software testing 68,000 attributes for 18,000 commercial and NSN capacitors were automatically harvested and standardized to the Federal Catalog Schema from 5 supplier Web sites.
- The O2O results may help to reduce the cost of future cataloging effort while providing insights into how to reengineer the FIIG to reflect commercial attributes

## Example: Focused Crawler/O2O Data Enrichment

NSN 5910-01-375-5015 -

CAPACITOR, FIXED, PLASTIC DIELECTRIC

- Used on 8 weapon systems
- NO FLIS technical characteristics
- Collected Data from Mouser and Avnet – 43 attributes in total
- 17 attributes transformed to FCS
- Also collected images, PDS, commercial availability and lead time, etc

## Spec Mining

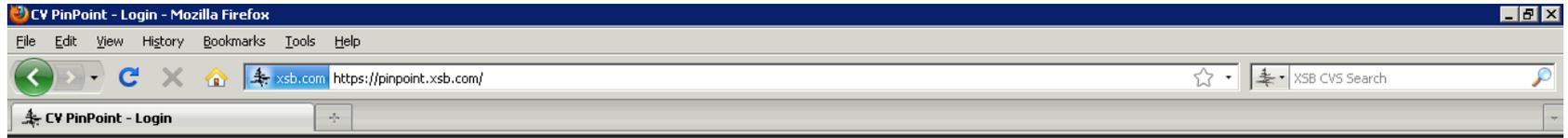
- Utilized Spec PN's to infer MRC's for NSNs
- Enriched NSNs and identified potential opportunities between the MIL-STD and the FIIG

- Identified four clusters of MIL-Specifications and DSCC drawings for Connectors, Hose Assemblies, and Knobs
- Encoded the part number logic embedded in the specifications and drawings in order to extract and standardize MRCs
- Extracted attributes for 630,000 specification defined and commercial part numbers
- Enhanced attributes for 3350 NSNs

## Details of Specification Mining to Enrich Part Number Attributes

- Family of 9 DSCC drawings for Printed Circuit Board Connectors
  - 161,700 Part Numbers defined by Drawings
  - 6,017,000 Attribute Values extracted for these part numbers
  - 342,720 Equivalent Commercial Part Numbers extracted
  - 315 NSNs enriched
- Family of 22 related Military Standards for Electrical Connectors
  - 79,476 Part Numbers defined by this family
  - 895,259 Attribute Values extracted for these Part Numbers
  - 2,103 NSNs enriched
- AN6207 Specification for Hose Assemblies
  - 495 NSNs related to this specification
  - 490 are poorly described
  - 438 were enriched
  - 15,106 Attribute Values added
- Family NAS Standards for Instrument Knobs
  - Currently being processed but should enrich about 400 poorly described NSNs with active purchase histories.

# Pin Point Access



XSB, Inc. | Login

## Pin Point

Users with accounts can use Standard Login.

### Standard Login

User Name   
Password

[Not Registered? Click Here.](#) | [Lost Password ?](#)

You may request an account from DSPO

Users with CAC cards can use CAC Login

### Common Access Card (CAC) Login

You can now access PinPoint using a DoD CAC (Common Access Card - 'DOD CLASS 3 EMAIL CA-6').  
(Note: Not all types of Contractor Common Access Cards are currently enabled. If a login form is presented to you after you use the CAC card, you were not authenticated. If you have any questions please email [pinpoint-admin@xsb.com](mailto:pinpoint-admin@xsb.com))

For more information about the CAC: Common Access Card, visit <http://www.cac.mil>

[Privacy Statement](#) [Terms of Use](#) [508 Compliance](#) [Plug-Ins](#)

# Looking Ahead

- Pin Point presently has data on 70 million parts. This will continue to grow rapidly due to technology advances.
- In addition to more parts, Pin Point will get more data about parts
- The system is emerging as the largest common parts library in the world. There seems to be special advantage in the volume of non-electronic part information in Pin Point.
- Government Pin Point usage is growing rapidly due to the efforts of DSPO and DLA.
- Projects like Content Switzerland will prove if the Pin Point engine can meet the MIL-STD-3018 challenge by bridging the gaps between the Government and OEM data.
- The system is presently sustained as an R&D prototype, but efforts are underway to develop a more consistent sustainment model.