

Native Controls in Microsoft Dynamics NAV

Nate Boettcher,
Director of Application Development
Fastpath

Agenda

- Introductions
- Security model
- Security reporting
- Administrative access
- Segregation of duties
- Audit trails
- Workflow

About Nate

- Director of Application Development at Fastpath
- 6 years experience in Software Development
- 4 years experience in Microsoft Dynamics

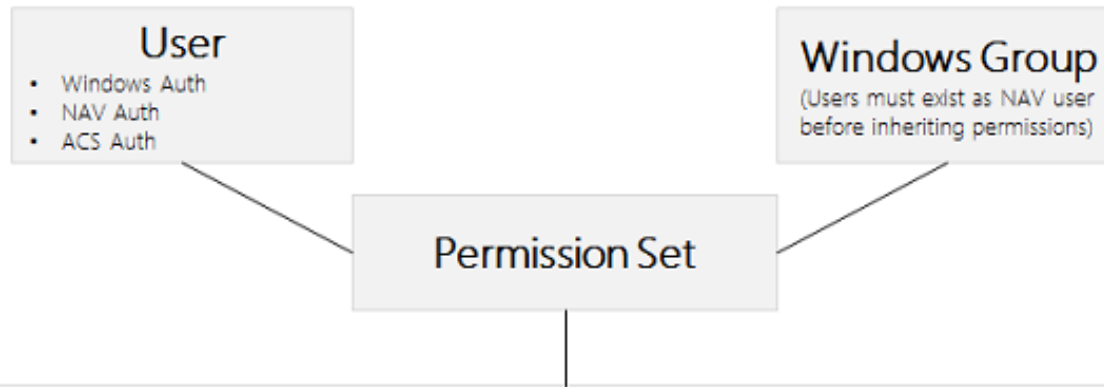
About You

- Microsoft Dynamics NAV Version
- Role
 - Finance
 - IT
 - Audit

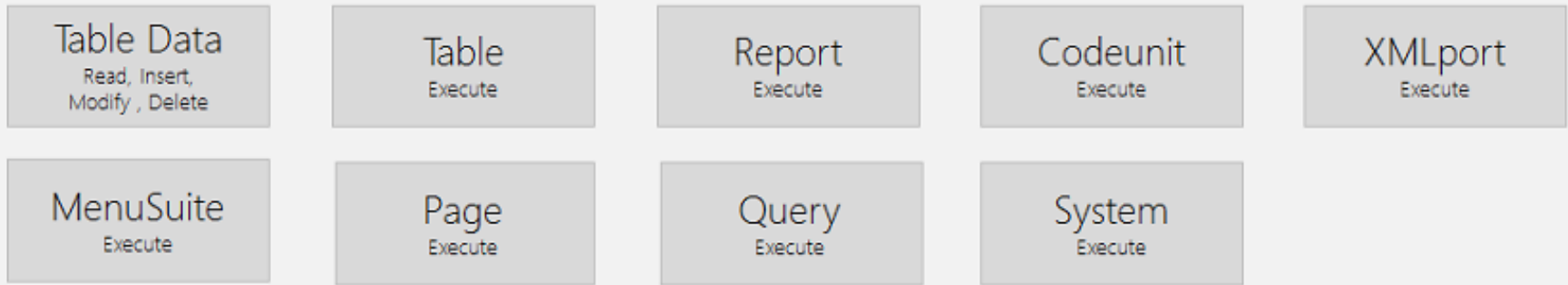
Security Model

- User -> Permission Set
- Permission set -> Permission
 - Read, Insert, Modify, Delete on Table Data
 - Indirect permission
 - Execute on all other objects
 - BASIC permission set (ALL in 2009)
 - Per Company Access
- User credential types
 - Windows authentication
 - NAV authentication (database)
 - Windows groups

Security Model



Securable Objects



Permission setup

Edit - Permissions - COST

Home Actions

CRONUS USA, Inc.

All Permissions New View List Edit List Delete Show as List Show as Chart OneNote Notes Links

Permissions ▾ Type to filter (F3) Object Type → Filter: COST

Sorting: Role ID, Object Type, Object ID ↕

Object Type	Object ID	Object Name	Read Per...	Insert Per...	Modify Pe...	Delete Pe...	Execute P...	Security F...
Table Data	15	G/L Account	Yes		Indirect			
Table Data	17	G/L Entry	Yes		Indirect			
Table Data	1100	Cost Journal Template	Yes	Yes	Yes	Yes		
Table Data	1101	Cost Journal Line	Yes	Yes	Yes	Yes		
Table Data	1102	Cost Journal Batch	Yes	Yes	Yes	Yes		
Table Data	1103	Cost Type	Yes	Yes	Yes	Yes		
Table Data	1104	Cost Entry	Yes	Indirect	Indirect	Indirect		
Table Data	1105	Cost Register	Yes	Yes	Yes	Yes		
Table Data	1106	Cost Allocation Source	Yes	Yes	Yes	Yes		
Table Data	1107	Cost Allocation Target	Yes	Yes	Yes	Yes		
Table Data	1108	Cost Accounting Setup	Yes	Yes	Yes	Yes		
Table Data	1109	Cost Budget Entry	Yes	Indirect	Indirect	Indirect		
Table Data	1110	Cost Budget Name	Yes	Yes	Yes	Yes		
Table Data	1111	Cost Budget Register	Yes	Yes	Yes	Yes		
Table Data	1112	Cost Center	Yes	Yes	Yes	Yes		
Table Data	1113	Cost Object	Yes	Yes	Yes	Yes		

OK

BASIC role (NAV 2013)

Edit - Permissions - BASIC

Home Actions

CRONUS USA, Inc.

All Permissions New View List Edit List Delete Show as List Show as Chart OneNote Notes Links

Permissions ▾ Type to filter (F3) Object Type →

Filter: BASIC

Sorting: Role ID, Object Type, Object ID

Object Type	Object ID	Object Name	Read Per...	Insert Per...	Modify Pe...	Delete Pe...	Execute P...	Security F...
Table Data	2000000079	Object Tracking	Yes					
Table Data	2000000080	Page Data Personalization	Yes	Yes	Yes	Yes		
Table Data	2000000110	Active Session	Yes					
Table Data	2000000111	Session Event	Yes					
Table Data	2000000112	Server Instance	Yes					
Table Data	2000000120	User	Yes					
Table Data	2000000203	Database Key Groups	Yes	Yes	Yes	Yes		
Table	0						Yes	
Report	0						Yes	
Codeunit	0						Yes	
XMLport	0						Yes	
MenuSuite	0						Yes	
Page	0						Yes	
Query	0						Yes	
System	2510	Edit, Find	Yes	Yes	Yes	Yes	Yes	
System	2520	Edit, Replace	Yes	Yes	Yes	Yes	Yes	
System	3220	View, Table Filter	Yes	Yes	Yes	Yes	Yes	
System	3230	View, FlowFilter	Yes	Yes	Yes	Yes	Yes	
System	3410	View, Sort	Yes	Yes	Yes	Yes	Yes	
System	3510	View, Design	Yes	Yes	Yes	Yes	Yes	
System	5830	Tools, Security, Password	Yes	Yes	Yes	Yes	Yes	

OK

Indirect Permission

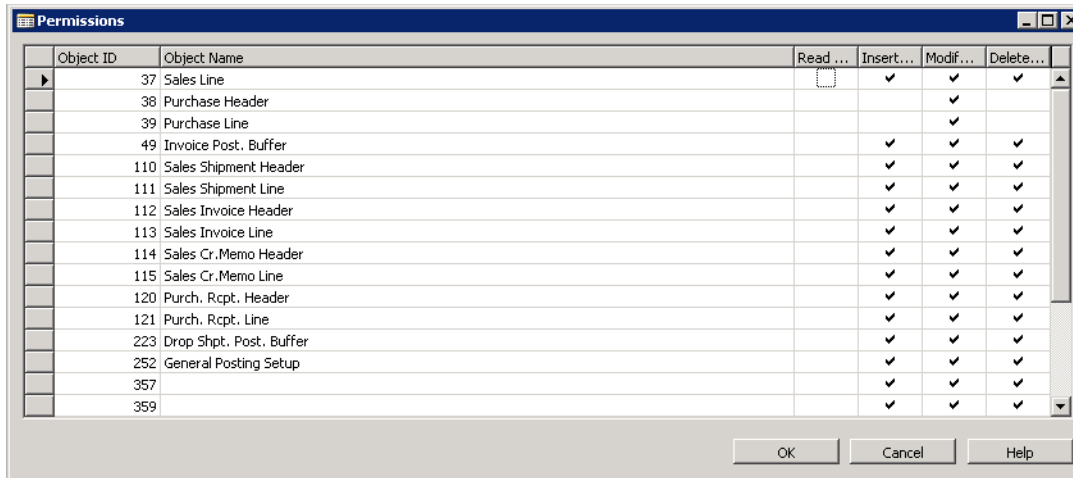
- Try to post Sales Order
 - Includes a Delete of Sales Line record
- Security assigned to Sales Line table

User ID	Object Type	Description	Read	Insert	Modify	Delete	Execute
FASTPATH.LOCAL\kmoore	Table Data	Sales Header Arch...	Yes	Yes	Yes	Yes	No
FASTPATH.LOCAL\kmoore	Table Data	Sales Invoice Hea...	Yes	Indirect	Indirect	No	No
FASTPATH.LOCAL\kmoore	Table Data	Sales Invoice Line	Yes	Indirect	Indirect	Indirect	No
FASTPATH.LOCAL\kmoore	Table Data	Sales Line	Yes	Indirect	Yes	Indirect	No
FASTPATH.LOCAL\kmoore	Table Data	Sales Line Archive	Yes	Yes	Yes	Yes	No
FASTPATH.LOCAL\kmoore	Table Data	Sales Line Discount	Yes	Indirect	Indirect	Indirect	No
FASTPATH.LOCAL\kmoore	Table Data	Sales Planning Line	Yes	Indirect	Indirect	Indirect	No
FASTPATH.LOCAL\kmoore	Table Data	Sales Preparation	Yes	Indirect	Indirect	No	No

Role Name	Read...	Insert...	Modify...	Delete...	Execut...
S&R-Q/O/I/R/C, POST	Yes	No	No	Indirect	No
S&R-CUSTOMER, EDIT	Yes	No	Indirect	No	No
WM-R/PA/A/P/S, POST	Yes	No	Yes	No	No
BASIC	Yes	Indirect	Indirect	No	No
S&R-Q/O/I/R/C	Yes	Indirect	Indirect	Indirect	No

Indirect Permission

- Codeunit Sales-Order 80 object permissions



Object ID	Object Name	Read ...	Insert...	Modif...	Delete...
37	Sales Line		✓	✓	✓
38	Purchase Header			✓	
39	Purchase Line			✓	
49	Invoice Post. Buffer		✓		✓
110	Sales Shipment Header		✓	✓	✓
111	Sales Shipment Line		✓	✓	✓
112	Sales Invoice Header		✓	✓	✓
113	Sales Invoice Line		✓	✓	✓
114	Sales Cr.Memo Header		✓	✓	✓
115	Sales Cr.Memo Line		✓	✓	✓
120	Purch. Rcpt. Header		✓	✓	✓
121	Purch. Rcpt. Line		✓	✓	✓
223	Drop Shpt. Post. Buffer		✓	✓	✓
252	General Posting Setup		✓	✓	✓
357			✓	✓	✓
359			✓	✓	✓

- Successful post

Indirect Permission

- Codeunit Sales-Order 80 modified object permissions

Object ID	Object Name	Read ...	Insert ...	Modif...	Delete...
37	Sales Line				<input type="checkbox"/>
38	Purchase Header			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
39	Purchase Line			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
49	Invoice Post. Buffer		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
110	Sales Shipment Header		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
111	Sales Shipment Line		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
112	Sales Invoice Header		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
113	Sales Invoice Line		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
114	Sales Cr. Memo Header		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
115	Sales Cr. Memo Line		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
120	Purch. Rcpt. Header		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
121	Purch. Rcpt. Line		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
223	Drop Shpt. Post. Buffer		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
252	General Posting Setup		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
357			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
359			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

- Error posting

Sales Orders

Sorting: Document Type, No.

No.	Sell-to Cu...	Sell-to Customer Name	External ...	Location ...	Assigned ...	Status	Salespers...	Campaign...	Curr...
101013	46897889	Englunds Kontorsmöbler AB		YELLOW		Released	JR		SEK
101015	49633663	Autohaus Mielberg KG		GREEN		Released	JR		EUR
101016	10000	The Cannon Group PLC		BLUE		Released	PS		
101019	31987987	Candoxy Nederland BV		YELLOW		Released	JR		EUR
101022	38128456	MEMA Ljubljana d.o.o.		RED		Open	JR		SIT
104001	10000	The Cannon Group PLC		BLUE		Open	PS		
104002	20000	Selangorian Ltd.							
104003	30000	John Haddock Insurance Co.							
104004	40000	Deerfield Graphics Company							
104005	60000	Blanemark Hifi Shop							
104006	10000	The Cannon Group PLC							
104007	20000	Selangorian Ltd.				Open	PS		
104008	30000	John Haddock Insurance Co.				Released	PS		

Microsoft Dynamics NAV

You do not have the following permissions on TableData Sales Line: Delete

OK

Security Reporting

- No standard functionality
- Manual reports
 - User to role access
 - Role to permission access
- SQL database queries
- SSRS reports
- Report reviews
 - Who?
 - How Often?
 - Sign-off?

Administrative Access

- Out of the box
 - SUPER
 - SUPER (DATA)
- First user created in Dynamics NAV is assigned SUPER
- No requirement for SUPER role
- SUPER role is not programmatic – assigned permissions
- SUPER (READ) recommendation

SUPER role permissions

Permissions

Sorting: Role ID, Object Type, Object ID

Filter: SUPER

Object Type	Object ID	Object Name	Read Per...	Insert Per...	Modify Pe...	Delete Pe...	Execute P...	Security F...
Table Data	0		Yes	Yes	Yes	Yes	Yes	
Table	0		Yes	Yes	Yes	Yes	Yes	
Report	0		Yes	Yes	Yes	Yes	Yes	
Codeunit	0		Yes	Yes	Yes	Yes	Yes	
XMLport	0		Yes	Yes	Yes	Yes	Yes	
MenuSuite	0		Yes	Yes	Yes	Yes	Yes	
Page	0		Yes	Yes	Yes	Yes	Yes	
Query	0		Yes	Yes	Yes	Yes	Yes	
System	0		Yes	Yes	Yes	Yes	Yes	

SUPER (DATA) role permissions

The screenshot shows a software window titled "Edit - Permissions - SUPER (DATA)". The window has a ribbon interface with "Home" and "Actions" tabs. The "Home" tab contains several groups of icons: "All Permissions" (New), "View List" (Manage), "Delete", "Show as List" (View), "Show as Chart", "OneNote", "Notes", and "Links" (Show Attached). Below the ribbon, there is a "Permissions" dropdown menu, a search box labeled "Type to filter (F3)", and an "Object Type" dropdown menu. The "Object Type" dropdown is currently set to "Table Data". Below these elements is a table with the following columns: "Object Type", "Object ID", "Object Name", "Read Per...", "Insert Per...", "Modify Pe...", "Delete Pe...", "Execute P...", and "Security F...". The table has one row with the following values: "Table Data", "0", (empty), "Yes", "Yes", "Yes", "Yes", (empty), and (empty). At the bottom right of the window is an "OK" button.

Object Type	Object ID	Object Name	Read Per...	Insert Per...	Modify Pe...	Delete Pe...	Execute P...	Security F...
Table Data	0		Yes	Yes	Yes	Yes		

SUPER (READ) role permissions

The screenshot shows a software window titled "Edit - Permissions - SUPER (READ)". The window has a ribbon interface with "Home" and "Actions" tabs. The "Home" tab contains several groups of icons: "All Permissions" (New), "New" (New), "View List" (View List), "Edit List" (Edit List), "Delete" (Delete), "Show as List" (View), "Show as Chart" (View), "OneNote" (Show Attached), "Notes" (Show Attached), and "Links" (Show Attached). The "Actions" tab is currently selected. Below the ribbon, there is a "Permissions" dropdown menu, a search box labeled "Type to filter (F3)", and a dropdown for "Object Type". The "Sorting" is set to "Role ID, Object Type, Object ID" and the "Filter" is set to "'SUPER (READ)'".

Object Type	Object ID	Object Name	Read Per...	Insert Per...	Modify Pe...	Delete Pe...	Execute P...	Security F...
Table Data	0		Yes					

An "OK" button is located at the bottom right of the window.

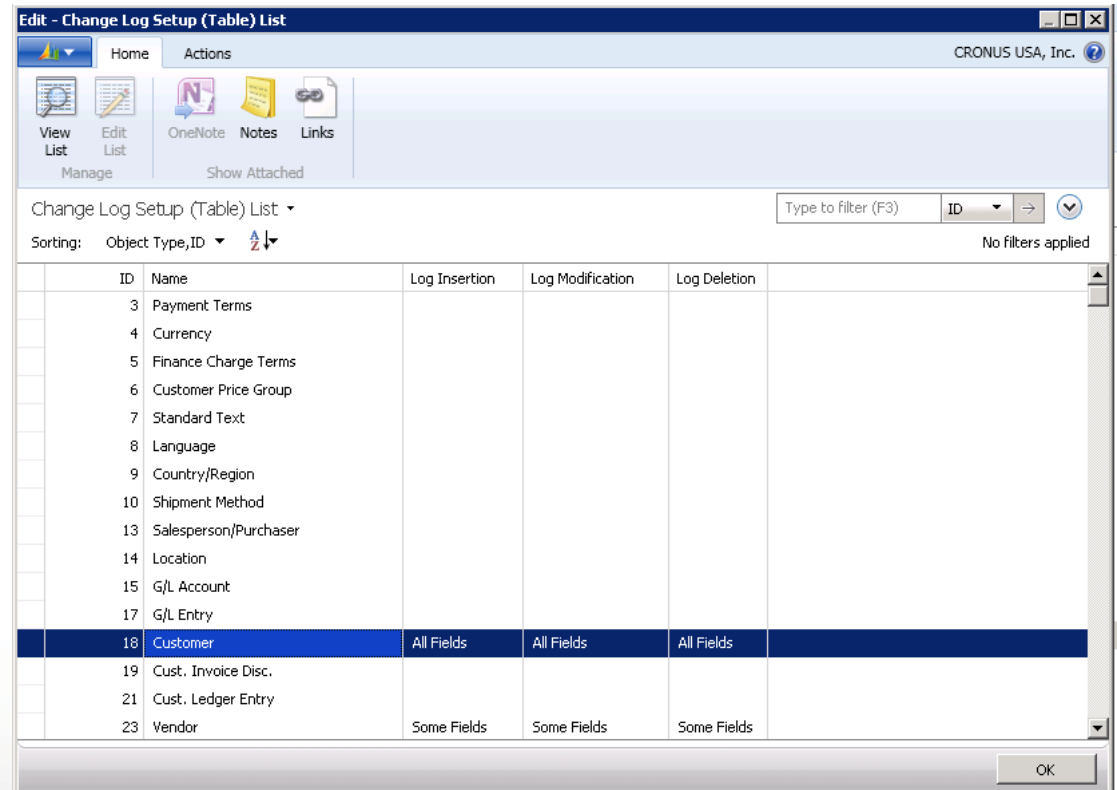
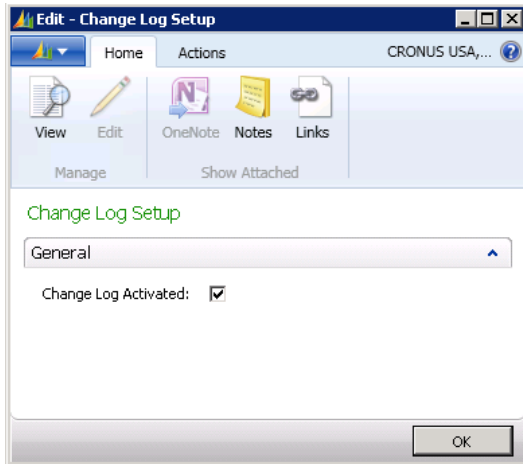
Segregation of Duties

- No standard functionality
- Methodology to follow
- Rule set to identify conflicts in your system (ISACA)
- Build a custom solution, automated or manual
- Manual transaction sampling
 - Compare vendor changes and purchase orders
- Don't forget about process controls
- Balance of process controls and system security

Audit Trails

- Change Log
 - Activate change log
 - Specify table/fields to track
 - Per company
- Performance considerations
 - Validate table/field tracking every transaction
- Only tracks changes inside of Dynamics NAV
- Changes at database level made by NAV Service Account
- Reporting on Audit Trail data

Change Log Setup



Change Log Entries

Change Log Entries - Microsoft Dynamics NAV

CRONUS USA, Inc. | Departments | Administration | IT Administration | General | Change Log Entries

Search (Ctrl+F3)

CRONUS USA, Inc.

Home Actions

Print Show as List Show as Chart OneNote Notes Links

Process View Show Attached

Change Log Entries

Type to filter (F3) Table Name Filter: @Customer*

Date and Time	User ID	Table Name	Primary Key Field 1 Value	Field Name	Type of C...	Old Value	New Value
8/26/2014 10:48:23.6...	FASTPATH\BOETTCHER	Customer	01445544	Address	Modification	3000 Roosevelt Blvd.	111 Main St
8/26/2014 10:48:23.6...	FASTPATH\BOETTCHER	Customer	01445544	City	Modification	Chicago	Waukee
8/26/2014 10:48:23.6...	FASTPATH\BOETTCHER	Customer	01445544	Last Date Modified	Modification	2012-09-13	2014-08-26
8/26/2014 10:48:23.6...	FASTPATH\BOETTCHER	Customer	01445544	Post Code	Modification	61236	50263
8/26/2014 10:48:23.6...	FASTPATH\BOETTCHER	Customer	01445544	County	Modification	IL	IA

CRONUS USA, Inc. | Thursday, January 23, 2014 | FASTPATH\BOETTCHER

Workflow

- Document approvals
 - Sales or purchase order
- Predefined hierarchy of approval managers with specific approval amount limits
- Approval administrator maintains the system
 - Substitute approvers
- Notification
 - E-mail notification between user and approvers
 - Overdue approvals

Approval User Setup

Approval User Setup

CRONUS USA, Inc.

Home Actions

New View List Edit List Delete Approval User Setup Test Show as List Show as Chart OneNote Notes Links

Type to filter (F3) User ID No filters applied

User ID	Salespers...	Approver ID	Sales Amount Approval ...	Unlimited Sales...	Purchase Amount Appr ...	Unlimited Purch...	Request Amo...	Unlimited Reques...	Substitute
FASTPATH\BOETTCHER				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	FASTPATH\KIRK
FASTPATH\JCUTLER	NB	FASTPATH\BOETTCHER	5000	<input type="checkbox"/>	5000	<input type="checkbox"/>	5000	<input type="checkbox"/>	
FASTPATH\KIRK				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

OK

The ArcherPoint logo features the word "ArcherPoint" in a red, italicized sans-serif font. A grey swoosh is positioned above the "P", and a red dot is placed above the "i".

www.archerpoint.com

Questions?

Nate Boettcher
Fastpath

Twitter: @nboettcher
boettcher@gofastpath.com

