The Largest Independent Gathering of the Microsoft User Ecosystem

All About BC/NAV Permissions

Decrease Complexities, Deliver Results.





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Decrease Complexities, Deliver Results.



MARS

want tomorrow starts with how we do business today



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Mars Fishcare & Horsecare/Mars Edge

BC/NAVUG Advisory Board BC/NAVUG Planning Committee







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Agenda

- Creating New Users
- Roles & Permissions
- User Groups
- Best Practices
- Troubleshooting Permissions Errors
- Permissions Recorder



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Decrease Complexities, Deliver Results.

> Why Set Up Permissions?



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Why Set Up Permissions?



- Hide Sensitive/Private Data
 - Payroll, Personal, Sales, etc.

- Protect from accidental changes
- SOX Compliance/Segregation of Duty (protect from fraud)

Decrease Complexities, Deliver Results.

Creating A New User



Create A New BC/NAV User



- Create Active Directory Account 5. User Setup
- Create BC/NAV User or UserGroup
- 3. Assign Permissions
- 4. User Personalization
 - A. Profile ID (Role)
 - B. Language
 - C. Company

- A. Posting Dates
- B. Registering Time
- C. Salesperson/Purchasing

Codes

- D. Responsibility Centers
- E. Time Sheet Admin
- F. E-Mail
- 6. Warehouse Employees

Authentication Methods



Windows User Name		
Access Control Service Authentication >		
Business Central Password Authentication		
Password · · · · · · · · · · · · · · · · · · ·	 User must change password	
Web Service Access >		

Authentication Methods: ACS



- Access Control Service Authorization (ACS Access)
 - A cloud authentication service that offers an easy way to authenticate and authorize users for access to your web applications and services
 - Primarily used by developers and architects of Microsoft
 .NET clients, ASP.NET web applications, and Windows
 Communication Foundation (WCF) web services.

Authentication Methods: ACS



Access Control Service Authorization - (ACS Access)

https://docs.microsoft.com/en-us/azure/activedirectory/azuread-dev/active-directory-acs-migration



Authentication Methods: BC Password



- Business Central Password Authentication
 - Instead of Active Directory ID and password
 - Requires an SSL Certificate
 - MS Dynamics NAV 2017+
 - Changes Required to ClientUserSettings file
- https://docs.microsoft.com/en-us/dynamics365/businesscentral/dev-itpro/administration/authenticating-userswith-navuserpassword?tabs=admintool



Authentication Methods: Web Service Access



Web Service Access

• If your solution is configured for BC or NavUserPassword or AccessControlService authentication, then you can configure Microsoft Dynamics NAV user accounts to include a web service access key that can be used instead of a password to authenticate SOAP and OData web service requests



https://docs.microsoft.com/en-us/previous-versions/dynamicsnav-2016/jj672864(v=nav.90)?redirectedfrom=MSDN

Authentication Methods: Web Service Access



Office 365 Authentication

 Business Central/NAV supports federated user authentication with Microsoft Azure Active Directory (Azure AD)

 http://help2016.eossolutions.it/help/en/tskSetUpNAVForSingleSignOnWithOffice365UsingWindowsPowers hell.htm

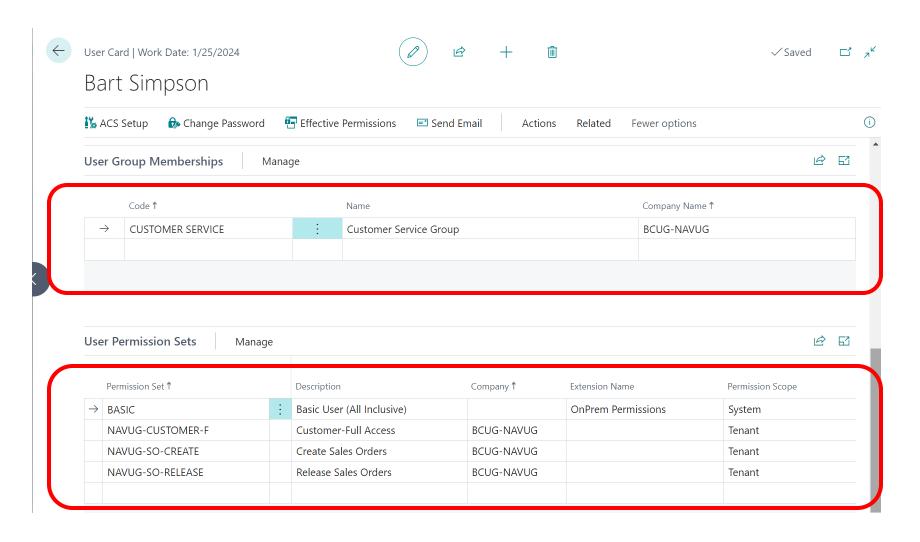
Create a New BC/NAV User



ACS Setup	♠ Change Passw	ord 📅 Effective Permissions	■ Send Ema	ail Actions Related Fe	wer options
General					Sho
User Name		BART		Microsoft 365	
Full Name		Bart Simpson		Authentication Email · · · · · · · ·	
License Type		External User	v	Application ID · · · · · · · · · · · · · · · · · ·	
Status · · · · ·		Enabled	~	Authentication Status · · · · · · ·	Disabled
Expiry Date				Web Service	
Contact Email		bart@navug.com		Web Service Access Key	**********
Windows A	uthentication				
Windows User 1					

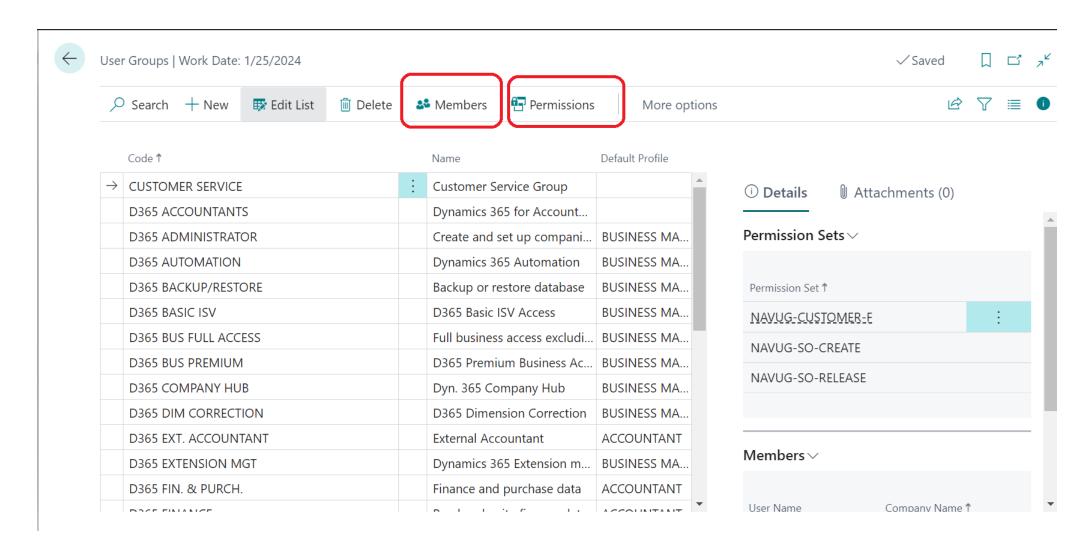
Assigning Permissions





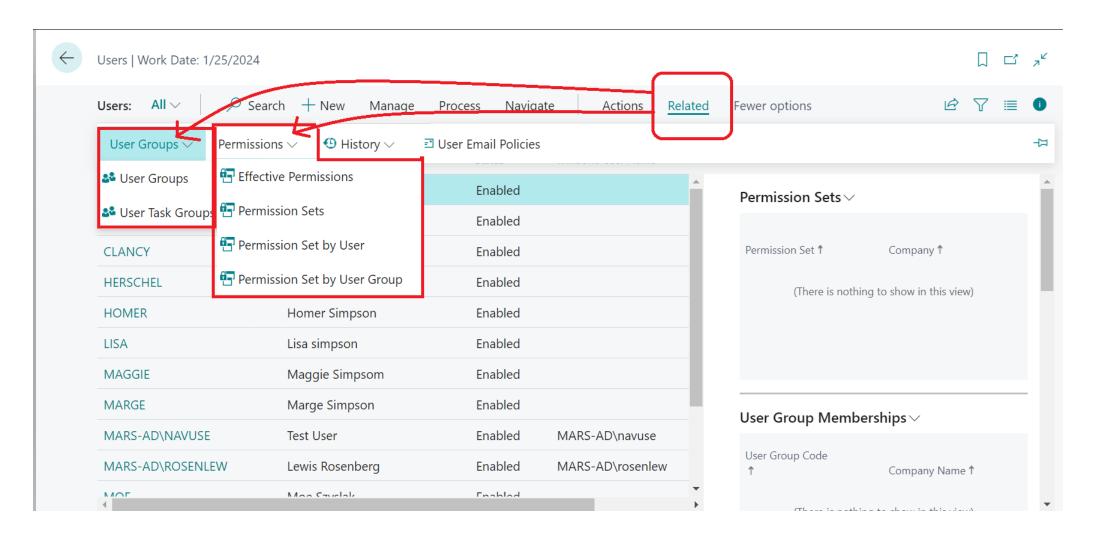
User Groups





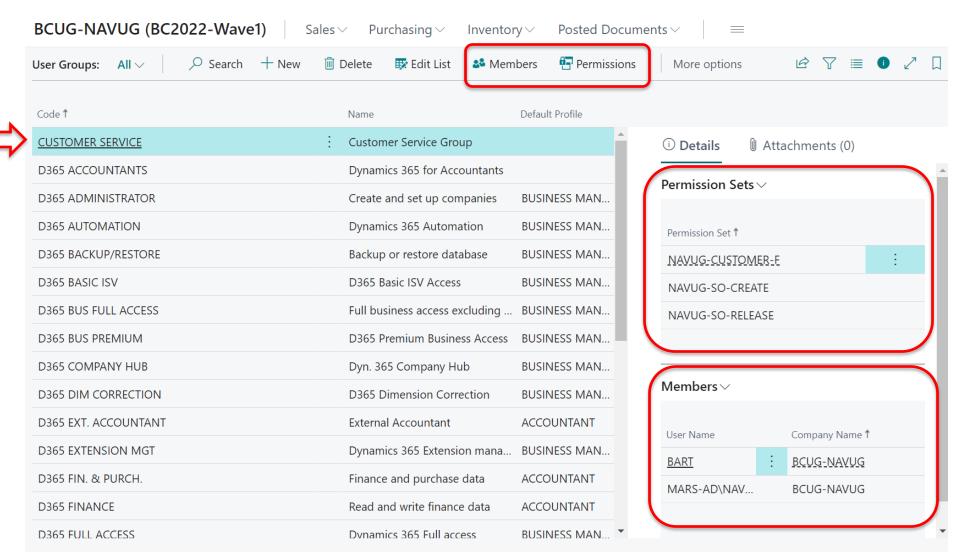
Review User Groups and Permissions





Review User Groups and Permissions





User Personalization: Profiles {Role:User Settings}





User Settings | Work Date: 1/25/2024















BART

X Clear Personalized Pages

More options

General

English (United States) User ID **BART** Region ... Sales Order Processor (UTC-12:00) International ... Time Zone Role English (United States) Company **BCUG-NAVUG** Language • • •

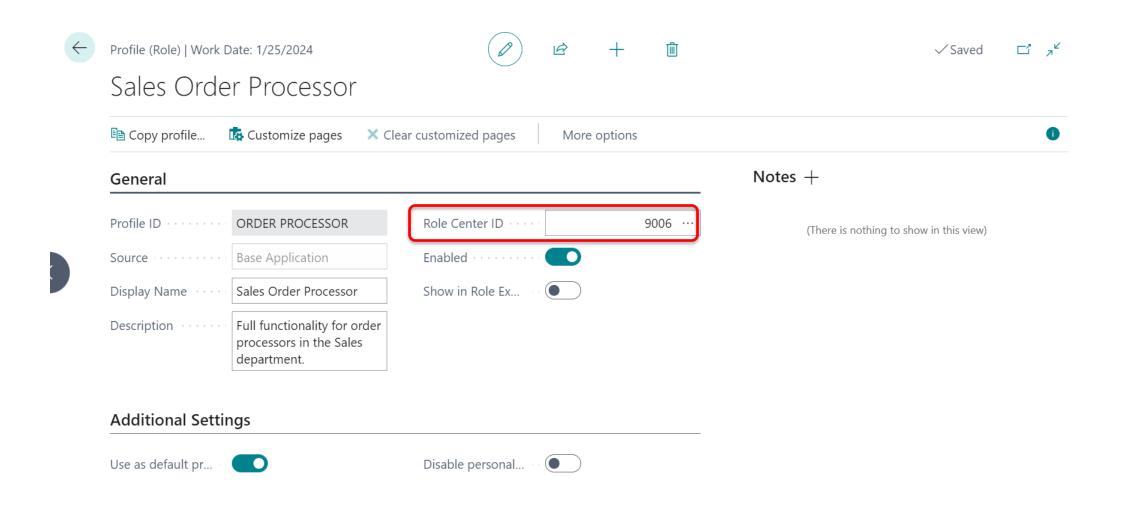
User Personalization: Profiles



Profiles (Roles) Work Date: 1/25	5/2024							7 ^K
Profiles (Roles): All V		Jse as default profile	Copy profile	🔯 Customize p	pages		r 7	≡
Profile ID	Display Name ↑	Source		Role Center ID	Enabled	Use as default profile	Show in Role Explorer	
ACCOUNTANT :	Accountant	Base Application		9027				
ACCOUNTING MANAGER	Accounting Manager	Base Application		9001				
AP COORDINATOR	Accounts Payable Coordinator	Base Application		9002				
AR ADMINISTRATOR	Accounts Receivable Administrator	Base Application		9003				
SECURITY ADMINISTRATOR	Administration of users, user groups an	Base Application		9024	V			
BLANK	Blank Profile	System Application		8999				
BOOKKEEPER	Bookkeeper	Base Application		9004				
BUSINESS MANAGER	Business Manager	Base Application		9022	V			
BUSINESS MANAGER EVA	Business Manager Evaluation	Base Application		9022	V			
COMPANYHUB	Company Hub	Company Hub		1151	V		V	
CREDIT MANAGER	Credit and Collections Manager	Base Application		36603				•

User Personalization: Profiles





User Personalization: Profiles





Object ID ↑	Object Name	App Name
9002	Acc. Payables Coordinator RC	Base Application
9003	Acc. Receivables Adm. RC	Base Application
9004	Bookkeeper Role Center	Base Application
9005	Sales Manager Role Center	Base Application
→ 9006 :	Order Processor Role Center	Base Application
9007	Purchasing Agent Role Center	Base Application
9008	Whse. Basic Role Center	Base Application
9009	Whse. Worker WMS Role Center	Base Application
9010	Production Planner Role Center	Base Application
9011	Shop Supervisor Mfg Foundation	Base Application
9012	Shop Supervisor Role Center	Base Application
9013	Machine Operator Role Center	Base Application
9014	Job Resource Manager RC	Base Application

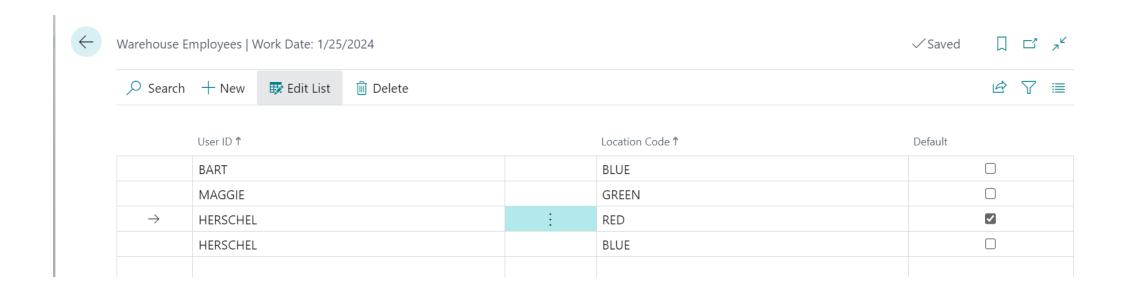
User Setup



C	Search + Ne	W	₩ Edit List	iii Delete									′ ≣
	User ID ↑		Allow Posting From	Allow Posting To	Allow Deferral Posting From	Allow Deferral Posting To	Regi Time	Salespers./Pu Code	Sales Resp. Ctr. Filter	Purchase Resp. Ctr. Filter	Service Resp. Ctr. Filter	Time Sheet Ad	E-Ma
	BART		11/1/2022	11/30/2022									
	MARGE		11/1/2022	11/30/2022									
\rightarrow	RALPH	:	11/1/2022	11/30/2022									

Warehouse Employees





Demonstration

Create a new Business Central User



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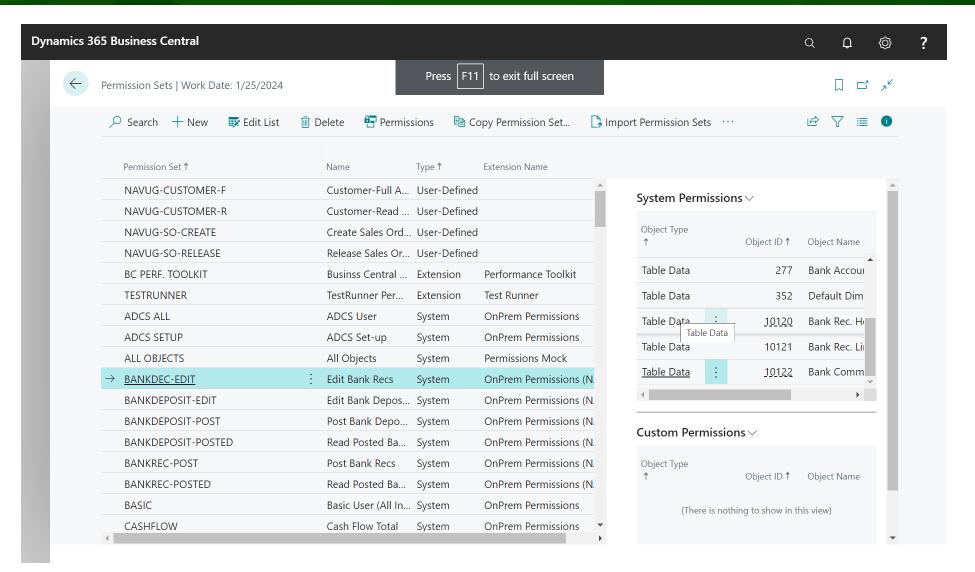
Decrease Complexities, Deliver Results.

All About Roles and Permission Sets



Roles/Permission Sets





Roles/Permission Sets



• BASIC (Everything to Sign On)

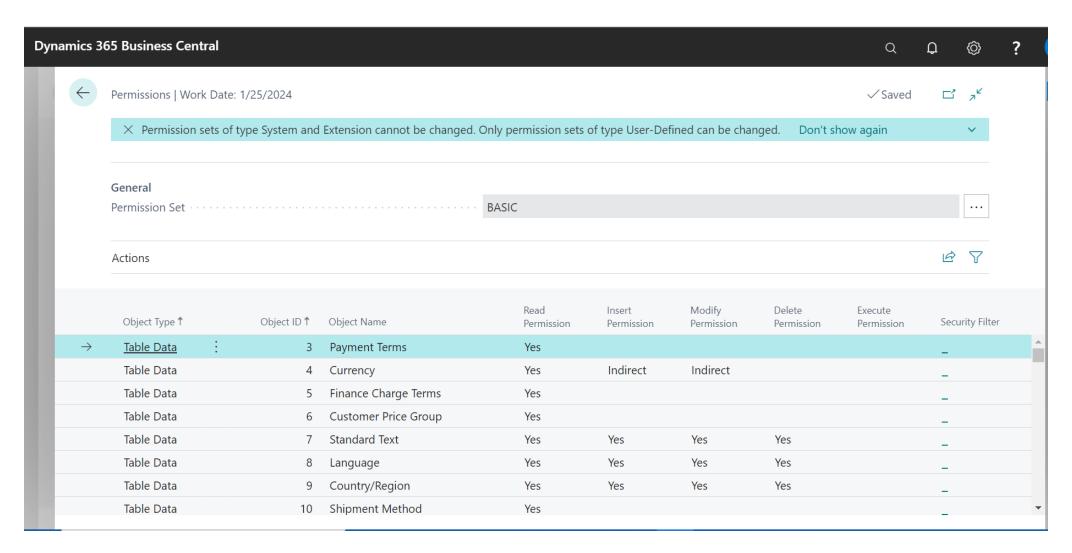
• SUPER (Full Access)

• SUPER (DATA) (Full Data Access)

- SYSTEM APP ADMIN
- SYSTEM APP BASIC
- TROUBLESHOOT TOOLS

Roles/Permission Sets: Basic





Indirect Permissions



The values for table permission are **Yes**, **Indirect**, or blank, which indicates no permission. You can use indirect permission **to use an object only through another object**.

For example, a user can have permission to run **codeunit80**, **Sales-Post**. The Sales-Post codeunit performs many tasks, including **modifying table 39**, **Purchase Line**. When the user runs the Sales-Post codeunit, BC/NAV checks whether the user has permission to modify the Purchase Line table.

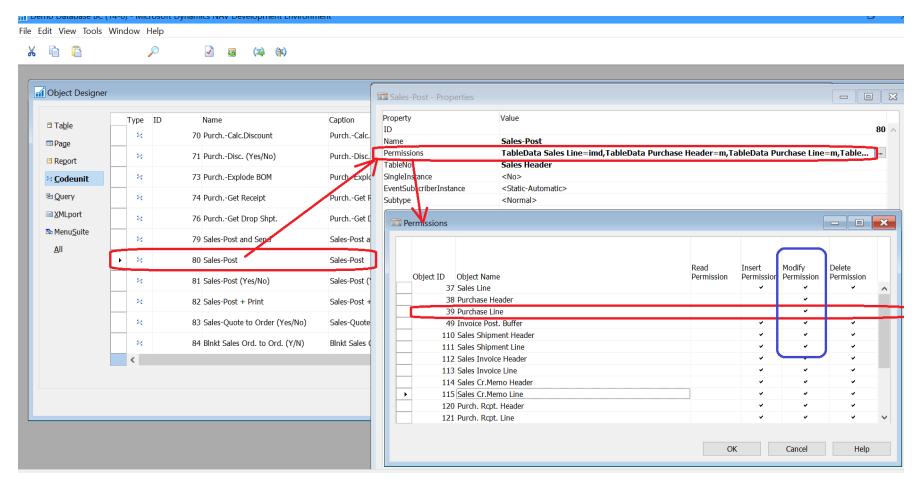
- If not, then the codeunit cannot complete its tasks, and the user receives an error message.
- If so, the codeunit runs successfully.

However, the user does not need to have full access to the Purchase Line table to run the codeunit. If the user has indirect permission for the Purchase Line table, then the Sales-Post codeunit runs successfully because of the combination of MODIFY=INDIRECT for TABLE 39 and EXECUTE=YES for Code Unit 80.

When a user has indirect permission, that user can only modify the Purchase Line table by running the Sales-Post codeunit or another object that has permission to modify the Purchase Line table. The user can only modify the Purchase Line table when doing so from supported application areas. The user cannot run the feature inadvertently or maliciously by other methods.

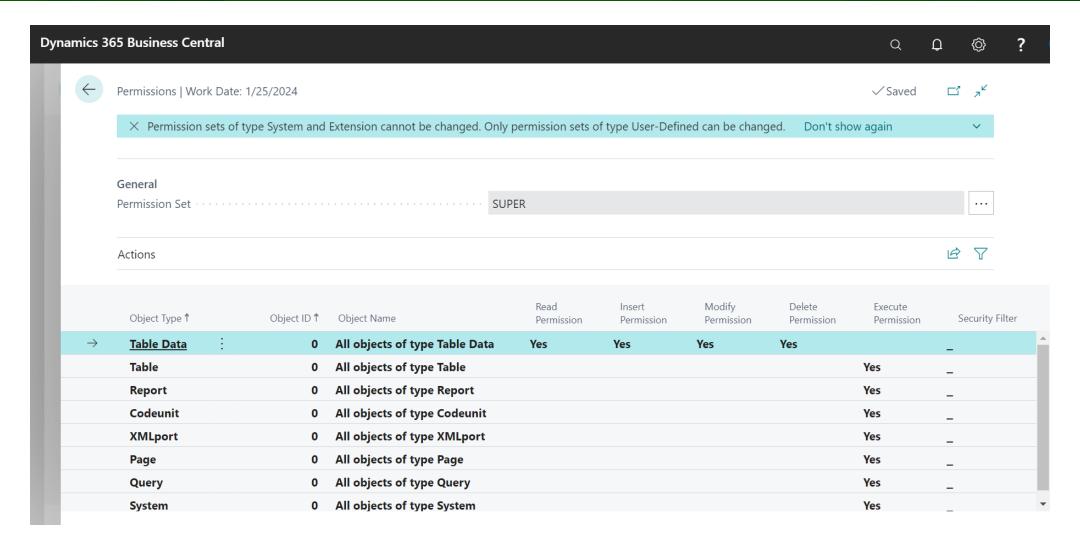
Indirect Permissions





Roles/Permission Sets: Super





Roles/Permission Sets: Super Data



Dyna	amics 3	65 Business Cen	tral							Q	Û	☺	?
	(Permissions Wo			Extension cannot be changed. On	ly permission sets of t	ype User-Defin	ed can be changed	l. Don't show	✓ Saved	ď	π ^k ∨	
l		General Permission Set			'S	uper (data)'							
ı		Actions									Ŕ	7	
ı		Object Type 1		Object ID 🕈	Object Name	Read Permission	Insert Permission	Modify Permission	Delete Permission	Execute Permission	S	ecurity Fi	lter
	\rightarrow	<u>Table Data</u>	:	0	All objects of type Table Data	Yes	Yes	Yes	Yes		_		
ı													
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Decrease Complexities, Deliver Results.

Best Practices



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Best Practices



Is Everyone A Super User?

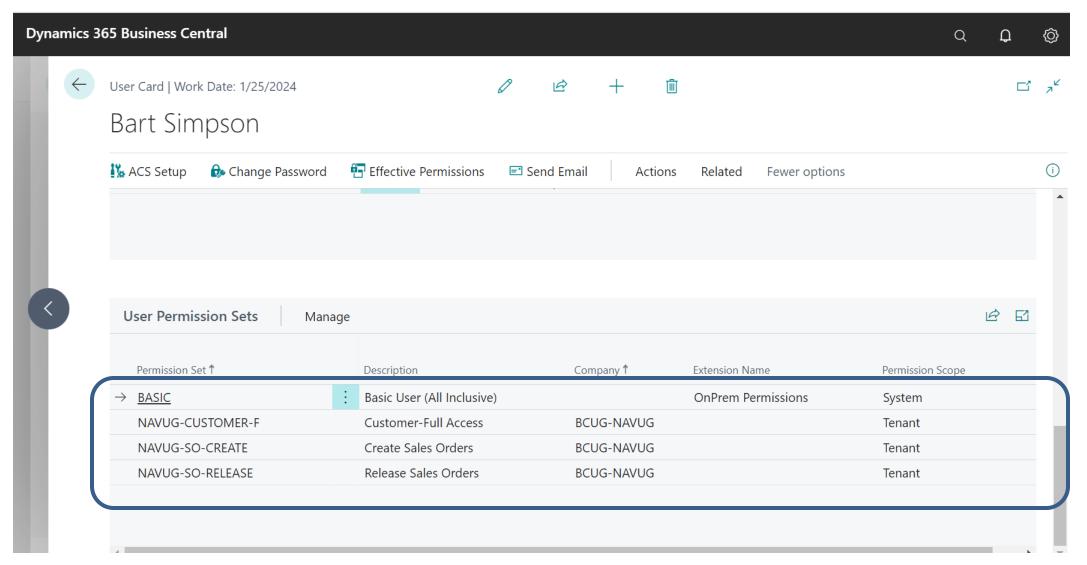


Best Practices



- Create your own permission sets
- Don't modify standard permission sets
 - Copy and then modify
- Naming convention:
 - NAVUG-SO-Create Order
 - NAVUG-PO-Create Order
- Keep It Simple One function per permission set
- Use User Groups for each Job Role.
- Work with your users and let them test



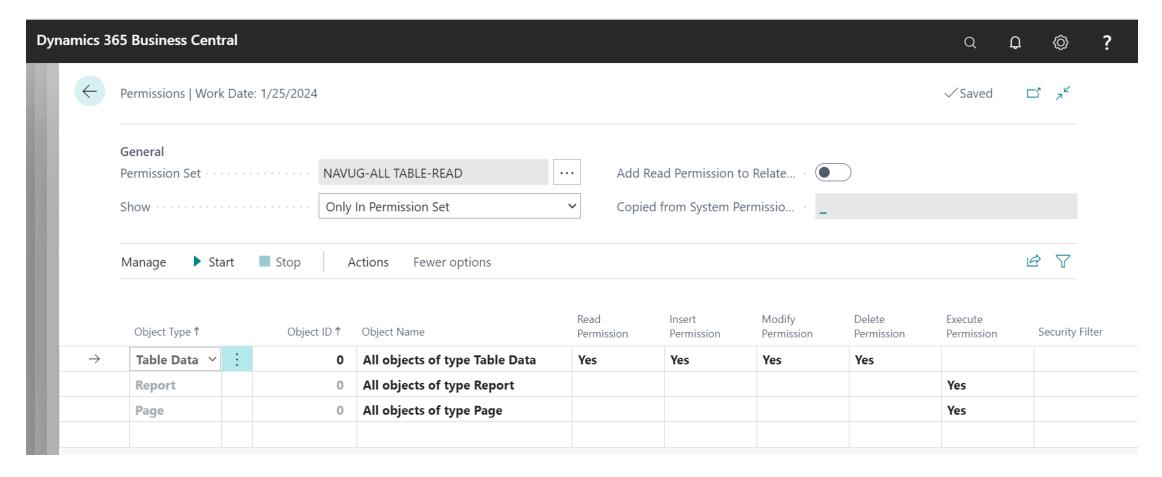




- Starting From Scratch? Think and plan an approach:
 - Create Permission Set: NAVUG-ALL
 - Execute All Tables, Pages, Reports, CodeUnits
 - As you determine what you want to restrict, remove the permission from this set.
- Update/Create permissions sets for new objects

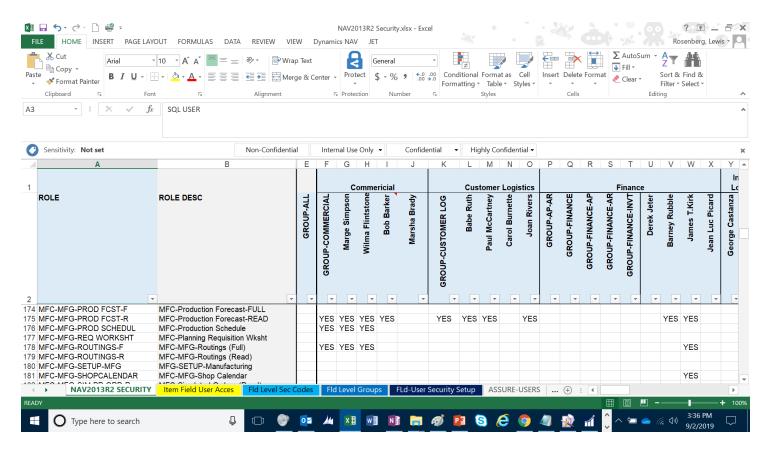


Read All Tables





• Document:



Decrease Complexities, Deliver Results.

Who Can Do That?

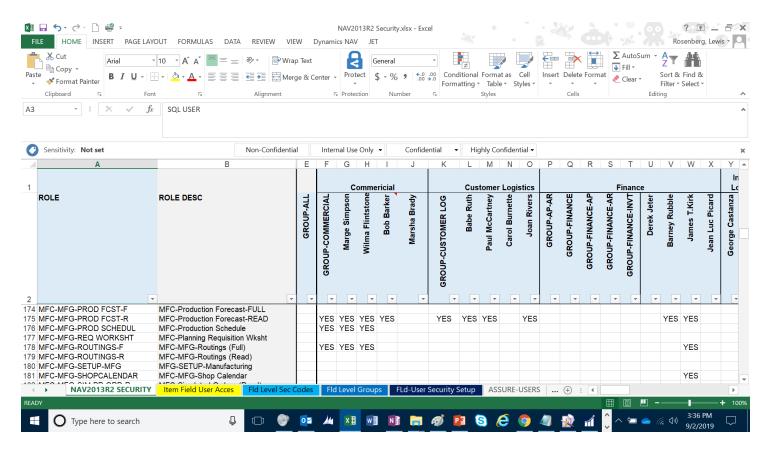


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Who Can Do That?

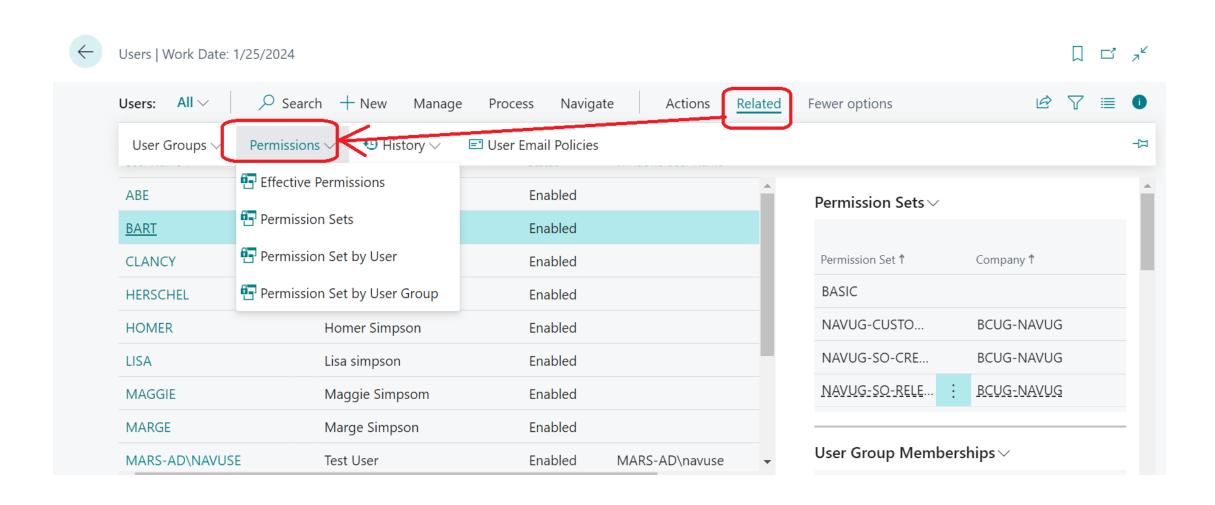


• Document:



System Tools





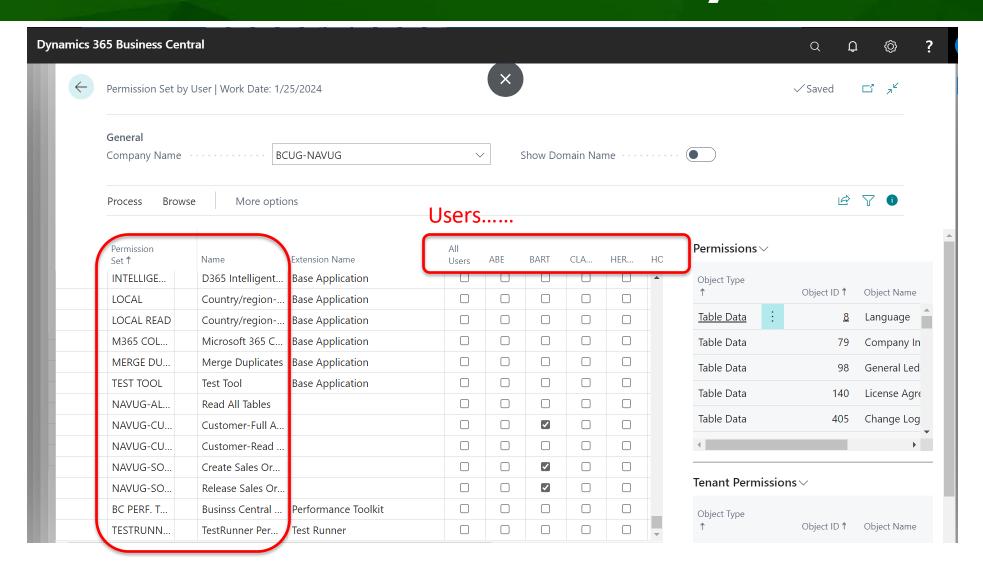
Effective Permissions



Dynamics 365 Business Central Q										٥	?
←	Effe	Effective Permissions Work Date: 1/25/2024								ا ا	
ı	Use	General User BART Company BCUG-NAVUG				Show All Objects					
	Permission Sets Permission Set by User More options								E	· 7	
Peri	missior	Object Type ↑		Object Name	Read Permission	Insert Permission	Modify Permission	Delete Permission	Execute Permission	In User- Defined Permissi. Set	
		Table Data		G/L Account	Indirect						
		Table Data		G/L Entry	Indirect						
	\rightarrow	<u>Table Data</u>	÷	Customer	Yes	Yes	Yes	Yes		~	
		Table Data		Vendor	Yes	Indirect	Indirect				
		Table Data		Item	Yes	Indirect	Indirect				
		Table Data		Item Translation	Yes	Indirect	Indirect				
	By Permission Set									B	
		Permission Set	Туре	Read Permission		Insert Permission	Modify Pe	rmission	Delete Permissio	n 	

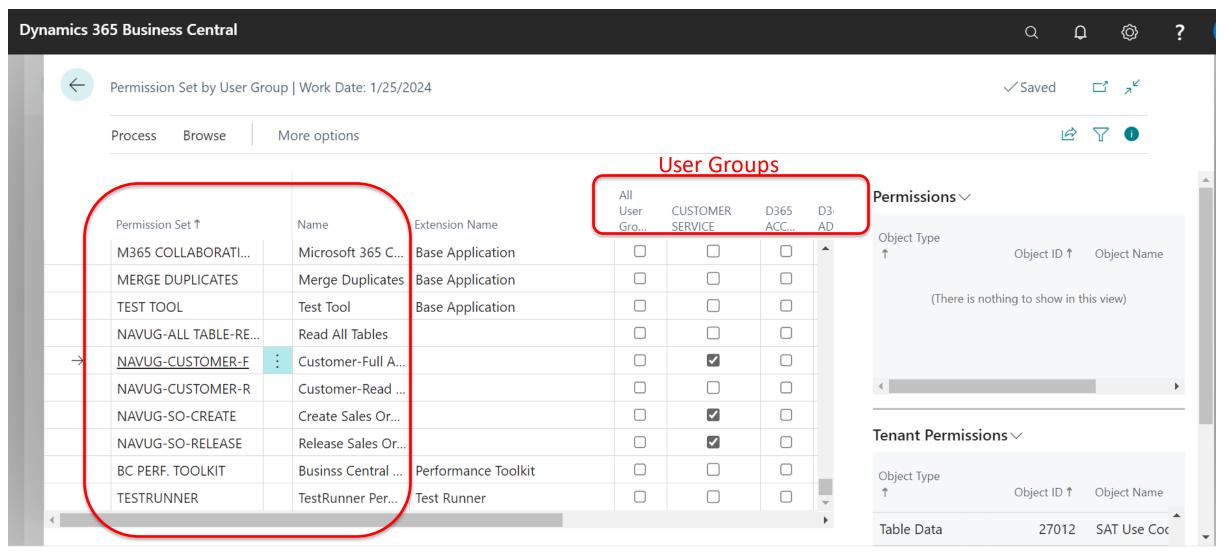
Where Used - Permission Set By User





Where Used - Permission Set By Group

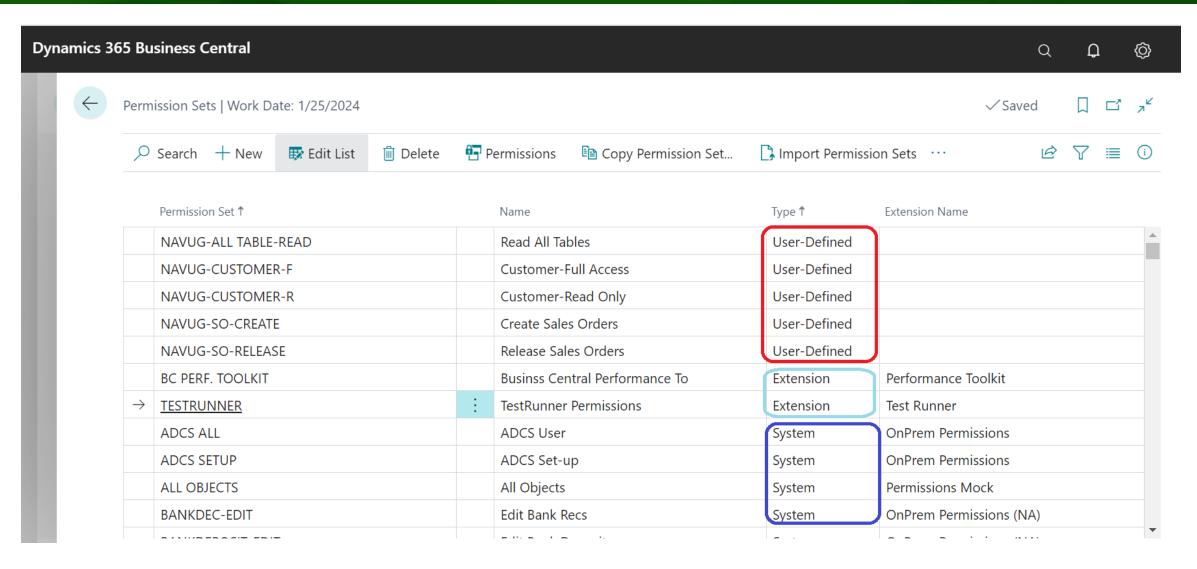




Decrease Complexities,
Deliver Results.

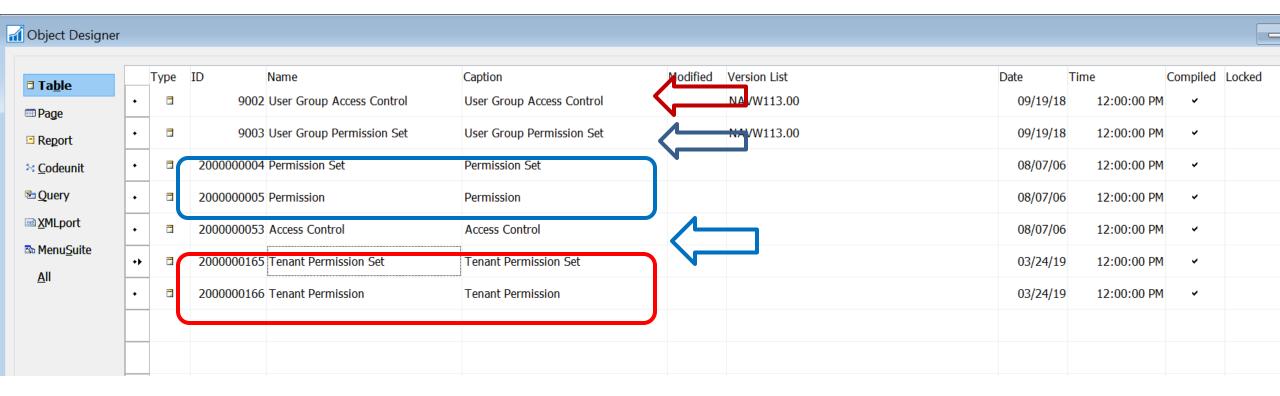
Permission Set Types





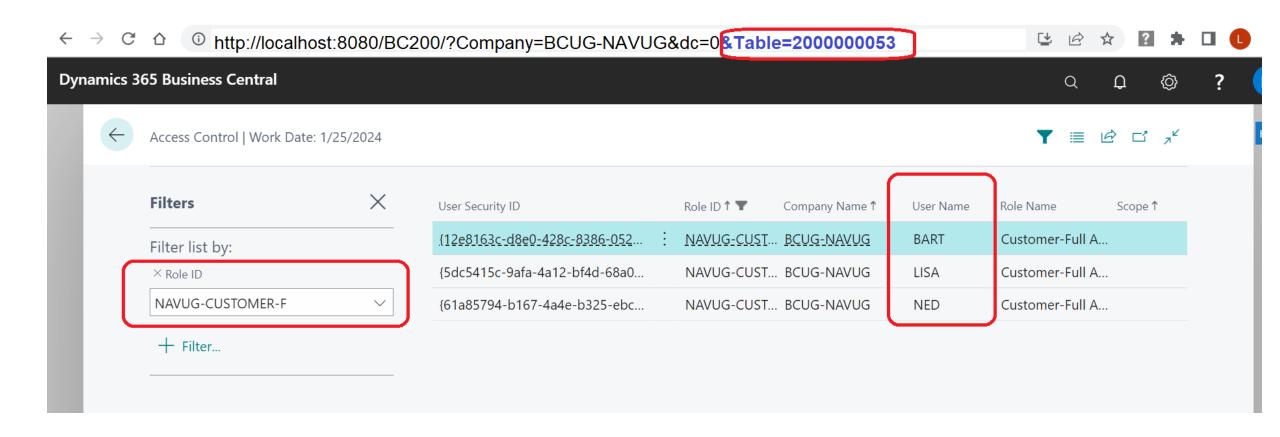
Where Used - Using Dev Tools





Where Used Permissions – User List

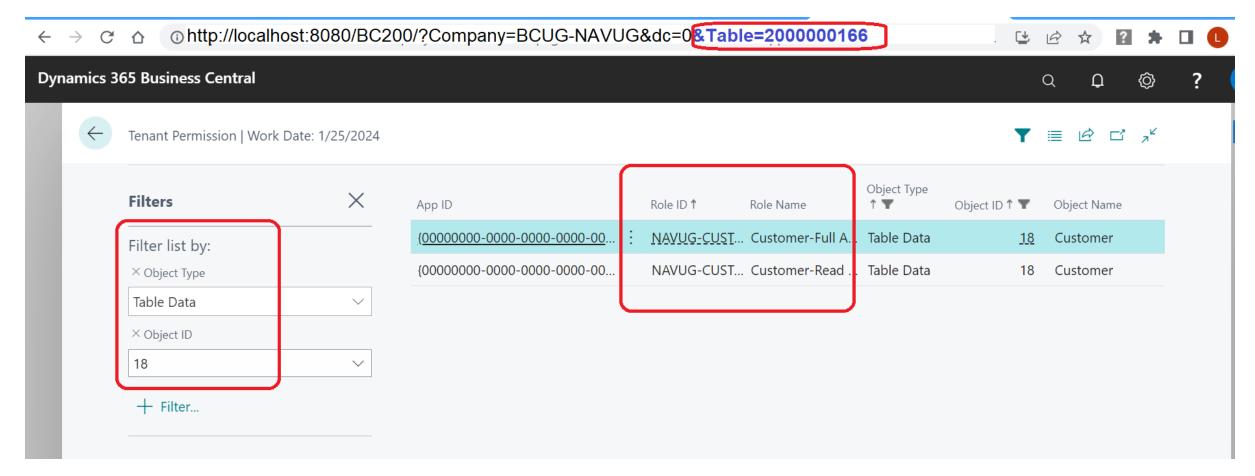




Run Table: 2000000053 (2,000,000,053) Access

Where Used Object / Tenant Permissions

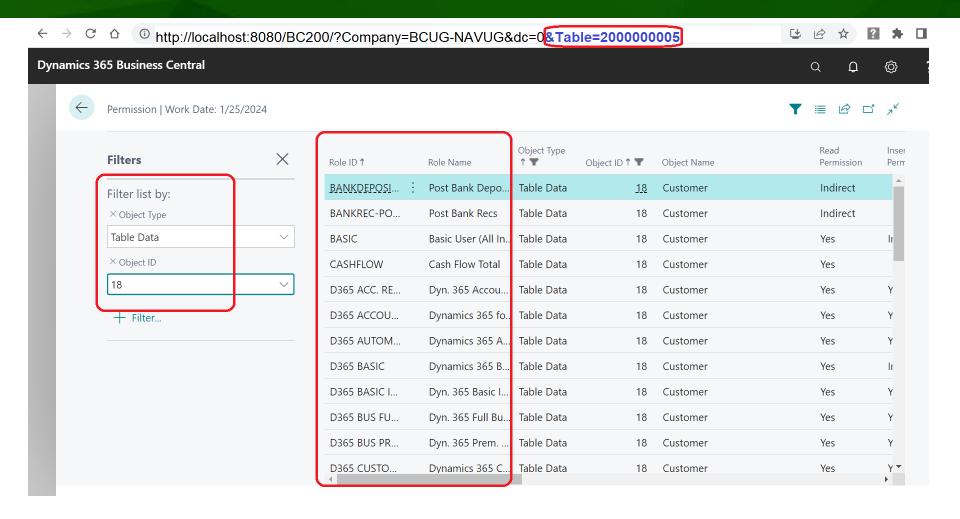




Run Table: 2000000166 (2,000,000,166) Tenant Permissions

Where Used Object/Permissions





Run Table: 200000005

(2,000,000,005) Permissions

Decrease Complexities, Deliver Results.

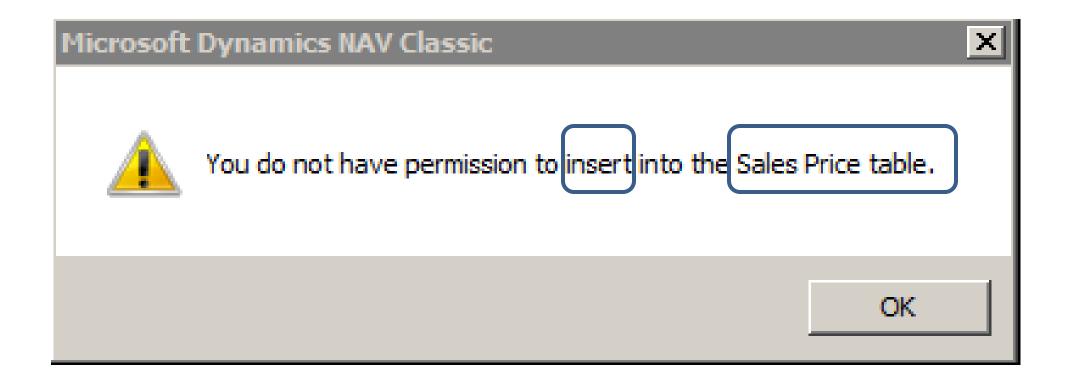


Troubleshooting Permissions Errors



Troubleshooting Errors





Demonstration

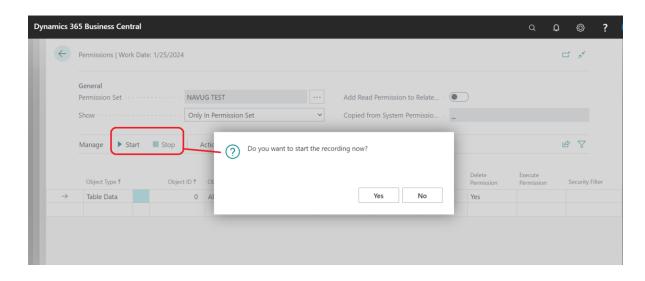
Who Can Do That?



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Recording Permissions

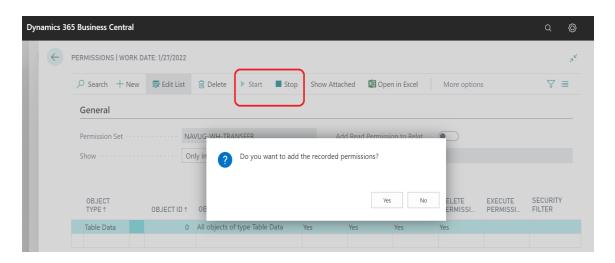




- 1. Works well when you open two sessions.
- 2. In first session SEARCH **Permission Sets**
- 3. **+New**
- 4. Enter Name and Description
- 5. Select it and click **Permissions** in the ribbon
- 6. Click **START** Do you want to start the recording now? YES
- 7. In second session, perform the actions to record
- 8. Back to first session, click **STOP** Do You want to add the recorded permissions? YES

Recording Permissions





- 1. Works well when you open two sessions.
- 2. In first session SEARCH **Permission Sets**
- 3. **+New**
- 4. Enter Name and Description
- 5. Select it and click **Permissions** in the ribbon
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Demonstration

Recording Permission





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Decrease Complexities, Deliver Results.

Managing Permissions



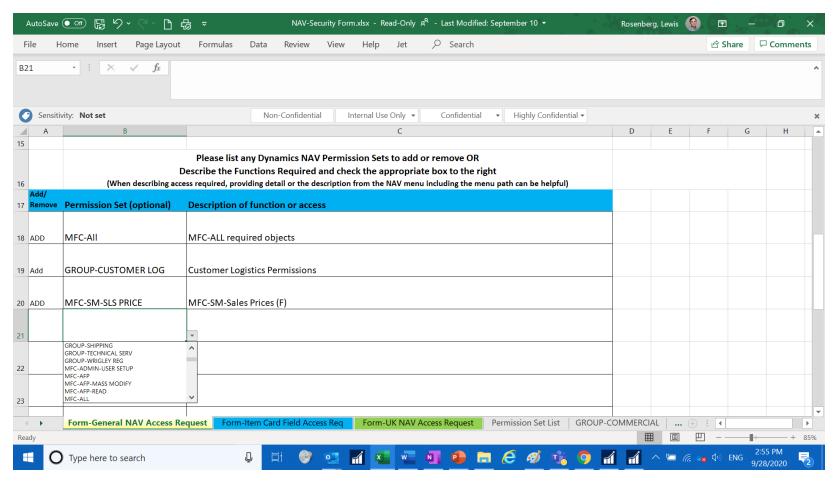
Discussion Topics



- Policies
 - How Requests are Submitted
 - Approvals (Who?)
 - Documentation
 - Existing Security
 - Changes
 - Approvals/Rejections
- Creating custom Permission Sets (Roles)
- Best Practices
- Troubleshooting Permissions Errors
- Segregation of Duty

Requesting Permissions





Suggested Resources



 User Group and Group Permissions NAV2016 (ArcherPoint Blog, Saurav Dhyani): https://www.archerpoint.com/blog/Posts/microsoft-dynamics-nav-2016-user-group-and-group-permissions



 Recording Permissions in NAV2016 (Video: FastPath, Kim Congleton): https://youtu.be/n3l1E-E4dmY



• License Types: https://docs.microsoft.com/en-us/dynamics-nav/license-types



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https://www.linkedin.com/in/rosenbergl/







Thank you for attending!

Please complete session surveys:



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