Version Manager



Installing the Version Manager VM1.09

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http://versionmanager.dk

Indholdsfortegnelse

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Prerequisites

To install Version Manager, the following prerequisites must be met:

- Dynamics NAV 2013 R2 or newer
- SQL Server 2008 R2 or newer
- Windows server 2008 R2 or newer

The User running the Dynamics NAV service must be Local Administrator on the NAV server and Setup Admin on the SQL Server.

If the full functionality is implemented, a compare program must be installed on all clients that need to access the objects.

Dynamics NAV Development Environment must be installed

User must have access to the Development Environment. The user running the Version Manager must be a domain user and all servers must be on the same domain or must be a local user created with same credentials on each server. It is not possible to mix domain and local users.

Installing Version Manager

License File

In order to install the free Version Manager in an existing Dynamics NAV solution, it is necessary to obtain a new license file from your Dynamics NAV partner.

Prerequisites for the different version are as follows:

	Starter or	Object	Application	Solution	Developers
	Extended	Design	Builder	Builder	License
	Pack				
Freeware	•				
Object Backup	•				
Customer Edition	•	•			
Partner Edition					

Prerequisite – must be present for Version Manager to function properly

Optional – The more rights the license has, the more functionality will be opened.

	Starter or Extended Pack	Object Design	Application Builder	Solution Builder	Developers License
Freeware	60 days Object Backup of one database				
Object Backup	Object Backup of up to five databases				
Customer Edition	Object Backup of up to ten databases	Comparing Databases & Build Management	Compare code changes & Export previous versions to text files for licensed objects only	Compare code changes & Export previous versions to text files	Compare code changes & Export previous versions to text files
Partner Edition	Object Backup of unlimited no. of databases	Comparing Databases & Build Management	Compare code changes & Export previous versions to text files for licensed objects only	Compare code changes & Export previous versions to text files	Compare code changes & Export previous versions to text files

Part of the new license will include access to the Version Manager:

Freeware edition:

6185510 V	ersion Manager	Freeware	618	5471	6185485	Codeunit	DX
6185510 V	ersion Manager	Freeware	618	5471	6185485	Page	RDX
	ersion Manager		618	5471	6185485	Query	RDX
6185510 V	ersion Manager	Freeware	618	5471	6185482	Report	RDX
6185510 V	ersion Manager	Freeware	618	5471	6185485	TableData	RIMD-
6185510 V	ersion Manager	Freeware	618	5471	6185485	TableDescription	RDX
6185510 V	ersion Manager	Freeware	618	5471	6185485	XMLPort	RDX
Object Ba	ackup:						
6185490 V	ersion Manager	Object Backup	618	5471	6185485	Codeunit	DX
6185490 V	ersion Manager	Object Backup	618	5471	6185485	Page	RDX
6185490 V	ersion Manager	Object Backup	618	5471	6185485	Query	RDX
6185490 V	ersion Manager	Object Backup	618	5471	6185483	Report	RDX
6185490 V	ersion Manager	Object Backup	618	5471	6185485	TableData	RIMD-
6185490 V	ersion Manager	Object Backup	618	5471	6185485	TableDescription	RDX
6185490 V	ersion Manager	Object Backup	618	5471	6185485	XMLPort	RDX
Custome	r Edition:						
6185480 Ve	ersion Manager	Customer Edition	6185	471	6185485	Codeunit	DX
6185480 Ve	ersion Manager	Customer Edition	6185	471	6185485	Page	RDX
6185480 Ve	ersion Manager	Customer Edition	6185	471	6185485	Query	RDX
6185480 Ve	ersion Manager	Customer Edition	6185	471	6185484	Report	RDX
6185480 Ve	ersion Manager	Customer Edition	6185	471	6185485	TableData	RIMD-
6185480 Ve	ersion Manager	Customer Edition	6185		6185485	TableDescription	RDX
6185480 Ve	ersion Manager	Customer Edition	6185	471	6185485	XMLPort	RDX
Partner E	dition:						
6185500 V	ersion Manager	Partner Edition	618	35471	6185485	Codeunit	DX
6185500 V	ersion Manager	Partner Edition	618	35471	6185485	Page	RDX
6185500 V	ersion Manager	Partner Edition	618	35471	6185485	Query	RDX
6185500 V	ersion Manager	Partner Edition	618	35471	6185485	Report	RDX
6185500 V	ersion Manager	Partner Edition	618	35471	6185485	TableData	RIMD-
6185500 V	ersion Manager	Partner Edition	618	35471	6185485	TableDescription	RDX
6185500 V	ersion Manager	Partner Edition	618	35471	6185485	XMLPort	RDX

Users

There are two users involved in installing Version Manager:

- The user making the actual implementation
- The user running the Dynamics NAV Server Instance

When installing a Dynamics NAV from the installation media a SQL server express version can be installed too.

In that process, the user making the actual implementation is automatically given privilege as Sysadmin.

🚪 Login Properties - NAV-CLIE	NT\Administrator _ C	IX
Select a page	🔄 Script 👻 📑 Help	
Server Roles The Server Boles Securables	Server role is used to grant server-wide security privileges to a user.	
Status	Server roles: bulkadmin dbcreator diskadmin processadmin ↓ public securityadmin serveradmin ↓ setupadmin ↓ sysadmin	

In the installation process, it is also defined, which user is running the Dynamics NAV Server Instance. If no user is chosen, the user: NT AUTHORITY\NETWORK SERVICE is selected to run the Dynamics NAV Server Instance.

Regardless if a domain user, a local user or Network Service is used, the user must be given these privileges in the SQL server:



Limited users

It is possible to add limited users and super users in Version Manager.

Limited users can only read data and cannot perform any modifications to the database. The Limited user could be if management want to follow the development of the database or an auditor who needs access to the information to perform a full system audit.

The permission set for the limited users and the super user can be retrieved using a RapidStart configuration package. The package can be found in the installation media in the RapidStart folder.

Temporary path

Due to the length of the system temporary path, it is necessary to give the user is running the Dynamics NAV Server Instance full control over the "c:\temp" folder on the machine where the NAV service is running. This can be achieved by right-clicking the folder in the explorer and choosing the Security tab:

								-	8
🚱 🔵 🗢 🚢 🕨 Computer 🕨 Local Disk (C:	•) •			-	4 7	Search Local Disk	(C:)		Q
Organize 👻 📜 Open 🛛 Include in libr	rary 👻 Share with 🔻	New folder						Ŧ	0
🚖 Favorites	Name	^	Date modified	Туре		Size			
🥅 Desktop	🚵 b24bc4400043a38	dadb067	11/7/2015 1:34 AM	File folder					
🐞 Downloads	📕 BGInfo		2/9/2013 4:22 AM	File folder					
💯 Recent Places	鷆 inetpub		6/13/2012 8:00 PM	File folder					
	鷆 Install		5/20/2016 5:22 AM	File folder					
🥽 Libraries	鷆 JetReports		10/11/2012 9:47 AM	File folder					
Documents	鷆 PerfLogs		7/13/2009 8:20 PM	File folder					
a) Music	鷆 Program Files		5/20/2016 5:43 AM	File folder					
Pictures	鷆 Program Files (x8	<u>6)</u>	5/20/2016 5:25 AM	File folder					
🚼 Videos	퉬 Subscriptions	📜 Temp Properties			x				
	🍌 Temp	General Sharing	Security Previous Versions	Customics					
📜 Computer	퉬 Users			Customize					
🚢 Local Disk (C:)	퉬 Windows	Object name: C:\	Temp						
😪 share (\\hs) (Z:)	🔒 BGInfo	Group or user name	s:			386 KB			
<table-of-contents> Network</table-of-contents>		GPEATOR DV G	/NER ERVICE III Junio CIA Advisibility March III Junio Cia Advisibility March Junio Cia Advisor Junio	Edt Deny					
Temp Date modified: 5/20/20 File folder	16 7:57 AM		OK Cance	Apply					

In this case full control at been granted to the Network Service user.

Objects

Download the newest objects from the web site:

- Dynamics NAV 2013 R2: <u>http://ba-consult.dk/versionmanager/071/VM_71.zip</u>
- Dynamics NAV 2015: <u>http://ba-consult.dk/versionmanager/080/VM_80.zip</u>
- Dynamics NAV 2016: <u>http://ba-consult.dk/versionmanager/090/VM_90.zip</u>
- Dynamics NAV 2017: <u>http://ba-consult.dk/versionmanager/100/VM_100.zip</u>

Start the Microsoft Dynamics NAV Development Environment and import

Т	Туре	No.	Name		New Object	New Obi	Existing	W.,	Action	Existing	Existing Object Version List	New Obj	New Object
	Table		VM Object		✓	1.1011 00,111	Excerning fro		Create	Long III	Entering object for bioff bot	✓	VM0.91
1	Table		VM Object Metadata	1	~				Create			~	VM0.91
-	Table		VM Setup		~				Create			~	VM0.91
1	Table		VM Object Database		~				Create			~	VM0.91
1	Table		VM Build Header		~				Create			~	VM0.91
1	Table	6185476	VM Build Object		~				Create			~	VM0.91
1	Table	6185477	VM Activities		~				Create			~	VM0.91
1	Table	6185478	VM Build Server		~				Create			~	VM0.91
	Table	6185479	Version Manager		~				Create			~	VM
1	Table		VM Build Roll Back Ol	bject	~				Create			~	VM0.91
1	Table		Aggregate Objects		~				Create			~	VM0.91
1	Report		Version Manager		~				Create			~	VM0.91
1	Codeunit		VM Management		~				Create			~	VM0.91
1	Codeunit		VM Installation		~				Create			~	VM0.91
	Codeunit	6185473	VM TestFileHandling		¥				Create			~	VM0.91
	Codeunit	6185475	VM Clean Up Data		~				Create			~	VM0.91
	Codeunit	6185479	Version Manager		~				Create			~	VM
1	XMLport	6185479	Version Manager		~				Create			~	VM0.91
	Page	6185471	VM Objects		~				Create			~	VM0.91
	Page	6185472	VM Version History		~				Create			~	VM0.91
1	Page		VM Setup		~				Create			~	VM0.91
1	Page	6185474	VM Object Database	s	~				Create			~	VM0.91
	Page	6185475	VM Builds		¥				Create			~	VM0.91
	Page	6185476	VM Build Objects		¥				Create			~	VM0.91
	Page	6185477	VM Activities		~				Create			~	VM0.91
	Page	6185478	VM Build Servers		~				Create			~	VM0.91
	Page	6185479	Version Manager		~				Create			~	VM0.91
	Page	6185480	VM Build Roll Back Ol	ojects	~				Create			~	VM0.91
	Page	6185481	VM Select Build Serv	ers	~				Create			v	VM0.91
	Page		VM Restore Warning		~				Create			~	VM0.91
	Page	6185483	Object per Database		~				Create			~	VM0.91
1	Page	6185484	Compare Objects		¥				Create			~	VM0.91
	Query	6185479	Version Manager		~				Create			~	VM0.91
i	Query	61054/9	version Manager		•			-	Create			•	VM0.91
4													
1	•												Þ
	Name	e	Modified	Version list		Size	Date		Time				
xis	ting		Г				0						
ev	v Versi	ion Manager	V	VM			676 01-	10-15	12:00:	00			

Notice that the action has been set to **Create** for all the objects.

Click Ok to import the objects. And the following message appears.

📰 Impor	t١	oł	ojo	20	ts	;		
Import Co	m	ple	ete	ed				
Created.								33
Replaced								0
Merged .								0
Deleted .								0
Skipped .								0
							<u></u>	 OK

Implement Version Manager manually in MenuSuite

To enable Version Manager in the Departments Menu, the following menu a number of items must be added to the Company MenuSuite. This can either be done by importing the object MenuSuite 1060 Version Manager or manually. So, if the object MenuSuite 1060 Version Manager has been installed ALL MenuSuite objects must be compiled to take effect. If Version Manager is to be installed manually, here is what to do:

In the Development Environment go to design and MenuSuite.

If the Company MenuSuite does not exist, press F3 to create a new, choose the Dept – Company and press ok.

🏠 Object Designer								_ 🗆 X
🗖 Table		Туре	ID Na	ame		Modified	Version List	
	►	<u>S</u> u	1010 De	pt - MBS			NAVW17.00	
📰 Page		<u>S</u> to	1030 De	pt - Country			NAVDK7.00	
Report							1	
Codeunit			🧰 Design Lev	vel				
🔁 Query								
🔤 XMLport			Dept - MBS				L	
Menu <u>S</u> u			Dept - Region Dept - Countr					
Menu <u>s</u> u			Dept - Add-or					
<u>A</u> ll			Dept - Add-or					
			Dept - Add-or					
			Dept - Add-or					
			Dept - Add-or					
			Dept - Add-or					
			Dept - Add-or	۱7				
			Dept - Add-or	n 8			L	
			Dept - Add-or	19			L	
			Dept - Add-or	n 10				
			Dept - Partne				L	
			Dept - Compa	Ω <u>Υ</u>			-	
			— I			v	L	
							L	
			ОК	Cance	H	Help	-	
								-
		•						
				<u>N</u> ew	<u>D</u> esign		<u>R</u> un	Help

If the Company MenuSuite already exists, click design.

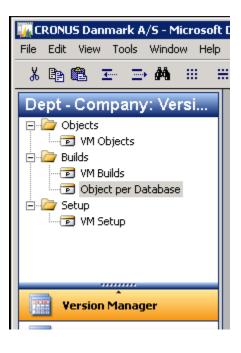
Next Create a new Menu Item.

Image: Second	y: Fina ent	<u>≡</u> ∧‡² H	↓ ► ► I ↑ Øbject Design	ier
E Receivables				Type ID
🗄 🧰 Payables			📑 Ta <u>b</u> le	1010
⊕			📰 Page	1030
	es		📃 Report	
🗄 💼 Setup			🔀 <u>C</u> odeunit	
			🔁 Query	1
			MLport	
			Menu <u>S</u> u	
			All	
» 📑 🛛 Financial Ma	agement	-1		
	Create Menu Delete			
» 🚉 Sales & Mar	Rename			
» 🗾 Purchase 👘	Move Down	-		
» 📰 Warehouse	Hide in Designer	-		
	Show in Designer			
» 📆 Manufacturi	Disable	_		
» 🔄 Jobs	Cut			
	Сору	_		
» 📕 Resource Pl	Properties			•
» 🧕 Service				
» 📆 🛛 Human Reso	ırces			
-				

The name of the menu: Version Manager.

🗰 Create Menu	
Caption Version Manager	
CaptionML ENU=Version Manager	
Bitmap	
OK Cancel	Help

Add the objects to the MenuSuite:



Objects:

- VM Objects – Page 6185471

Builds:

- VM Builds Page 6185475
- Objects per Database Page 6185483

Setup:

- VM Setup – Page 6185473

Save and exit.

After restarting the RoleTailored Client the Version Manager is now part of the Departments menu.

🚮 Version Manager - Microsoft 🛛	Dynamics NAV	
CRONUS Dan	mark A/S Departments Version Manager	▶
•		
Departments Þ Financial Management	Version Manager	
Sales & Marketing	Choose by department	
PurchaseWarehouse	Version Manager	Setup
Manufacturing Jobs	Reports	
Resource Planning Service	or choose by category	
Human Resources	III Lists	
Administration	💆 Tasks	
Version Manager	Reports and Analysis	
Version Manager		
Reports		
Setup		

In order to add the VM Objects to the IT-Manager Role Center, right-click the menu item VM Objects and select the Add to Navigation Pane.

r Version M	lanager - Microsoft Dyr	namics NAV		
GÐ.	CRONUS Danma	ark A/S 🔸 Departr	ments 🕨 Version Manager 🕨 Version	Manager 🕨
•				
Departmer Financial N Sales & Ma Purchase 	lanagement	Version Ma		
Varehouse	2	VM Objects	Open	1
Manufactu	ıring	Tasks	Open In New Window	
Jobs		VM Bui	Customize Navigation Pane	
Resource P	lanning	Object	Add to Navigation Pane	
Service				
Human Re	sources			

This if only possible if the Category Lists were chosen when creating the menu item in MenuSuite.

Implement Version Manager in the IT-Manager Role Center

In order to provide the IT-Manager with an extra overview over all changed objects in the solution, an extra activities page can be added to the IT-Manager Role Center.

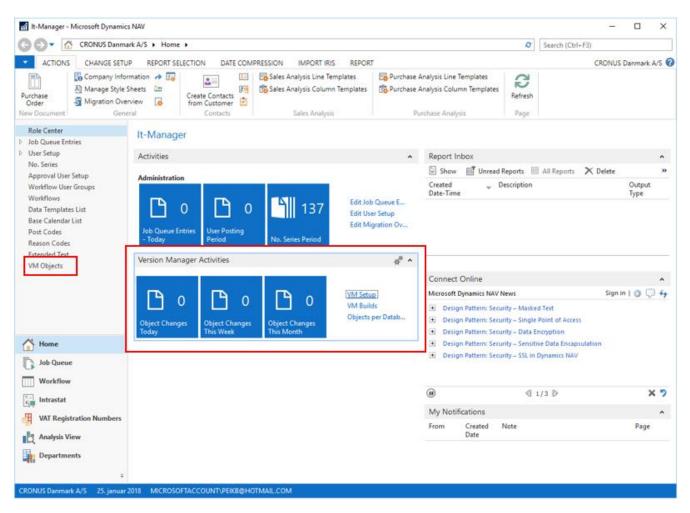
In the Development Environment go to design and Pages.

Add one line under the IT-Operations Activities Line:

	E. Type	SubType	SourceExpr	Name	Caption
	Container	RoleCenterArea	•	<control190000< th=""><th><control190000008></control190000008></th></control190000<>	<control190000008></control190000008>
	🗉 Group	Group		<control1900< td=""><td><control1900724808></control1900724808></td></control1900<>	<control1900724808></control1900724808>
	Part	Page		<it operation<="" td=""><td><it activities="" operations=""></it></td></it>	<it activities="" operations=""></it>
Γ	Part	Page		<vm activities=""></vm>	<vm activities=""></vm>
Γ	Part	System		<outlook></outlook>	<outlook></outlook>
	🗉 Group	Group		<control1900< td=""><td><control1900724708></control1900724708></td></control1900<>	<control1900724708></control1900724708>
	Part	Page		<my job="" queue=""></my>	<my job="" queue=""></my>
	Part	Page		<connect onli<="" td=""><td><connect online=""></connect></td></connect>	<connect online=""></connect>
	Part	System		<mynotes></mynotes>	<mynotes></mynotes>
I					
1	•				

The Type must be **Part** and the Page number **6185477**.

This will add an extra Activities page to the Role Center.



Now the IT-Manager has access to Version Manager which includes the actions:

- VM Setup
- VM Builds
- Objects per Database

Set up Version Manager

Now Version Manager must be set up. Depending on which version of Version Manager has been acquired, there are different limitations:

Freeware Version:	Only one database can be monitored
	The monitored database must be the same database where Version Manager is installed.
	The Solution will only be functional for 60 days. After that changes to objects wil no longer be registered but he historical data will remain in the database.
Object Backup:	Up to five databases can be monitored.
	The Version Manager database can be in one of the monitored database or it can reside in a separate database.
	Only backup and restore functionality is provided with the Object Backup version.
Customer Edition:	Up to five databases can be monitored
	The Version Manager database can be in one of the monitored database or it can reside in a separate database.
	The functionality provided includes:
	 Object Backup Build management Objects per database
Partner Edition:	It is possible to monitor unlimited number of databases
	The Version Manager database can be in one of the monitored database or it can reside in a separate database.
	The functionality provided includes:
	 Object Backup Object export Build management

• Objects per database

The setup can be performed manually or using a configuration questionnaire. The questionnaire for the setup can be found in the installation media in the RapidStart folder.

General Setting up

First time the Setup page is opened, the following message appears:

Microsoft	: Dynamics NAV	×				
Setup will download material from http://versionmanager. If no Internet is present the image must be imported manu Continue?						
	Yes No]				

This will download different scripts and other material from the Version Manager web site. This is to ensure, that the latest version of the source code is being installed. If there are no access to Internet during the installation process, the scripts must be installed manually later from the setup page.

The Setup page

त्ती E	dit - VM Se	tup						-		×
•	HOME	ACTIONS					CR		Danmark	A/S 🕜
	Solution Solution Anager	Vninstall Version Manager	Synchronize All Objects	 X Delete Old Version History f Download Version manager Version Manager Support 						
			General							

Installation of the Freeware edition

Installing the Freeware version of Version Manager will leave only a few option to change in the setup page. The rest is automatically filled.

VM Setup				
General			^	1
Path to Compare program: Program Parameters: Path for Development Env: Expiry Date:	%1 %2 C:\Program Files (x86)\Microsoft Dyna 02-01-2017	License Type: License No: VM Version: Installation Verified:	Freeware V	
SQL Server VM			^	1
SQL Server User ID:		SQL Server Password: Windows Authentication:		
Version Manager Databas	e		^	
SQL Server Name: SQL Instance Name: VM Database Name:	DESKTOP-2AFPBLN Demo Database NAV (9-0) VM Dev ~	VM Database Collation: VM Database Version:		

On initialization the field: **Program Parameters** will be automatically filled. It will also try to find the Development Environment automatically.

If that fails, the path to the Development Environment must be manually entered.

The field Path to Compare program must be filled manually.

Version Manager have been tested with the compare tools: **Beyond Compare, Ultra Compare** and **WinMerge**, but any compare tool will do as long as they accept the comparing files as parameters. If the parameters differ from the format **Beyond Compare** and **Ultra Compare** uses, the parameters can be altered manually in the field **Program Parameters**.

It is essential that all users have the same version of the compare program installed.

Expiry Date:	If the License type has been identified as Freeware, a Expiry Date will be calculated. If Version Manager has been purchased as a subscription on a lease base the Expiry Date will mark the end of the lease period.
License Type:	There are four different license types:
	 Freeware Object Backup Customer Edition Partner Edition
License No.	The Dynamics NAV License No registered with the database.
VM Version:	The current version of the objects will appear here. It is recalculated every time the setup page is started.
Installation Verified:	Indicates that the functionality has been installed and is ready to use for the Version Manager database.
SQL Server User ID:	The user id used for accessing the SQL server, if not using Windows Authentication.
SQL Server Password:	The password to access the SQL server
Windows Authentication:	If this field is marked, the user installing Version Manager must have access to the SQL server.
Server Name:	SQL server name
Instance:	SQL server instance
Version Manager Database:	The database where the object backups will be stored.

Object Databases

In the Object Database page, all databases to be included in Version Manager must be added.

This is both databases that will function as development and test databases and therefore "deliver" all object changes to Version manager, as well as the databases to "receive" objects from Version Manager.

Object Databases											^
Insert Server Name	🍤 Install Object D	atabase	뉺 Uninstall Ol	bject Databas	e 😋 Syncro	onize All Obj	ects 🗙	Delete	Old Vers	ion History	**
Server Name	Server Instance	🔔 Data	abase Name		Database Version	Install	Versi Man			Dev Data	
DESKTOP-2AFPBLN		Dem	o Database NAV	(9-0) VM Dev		\checkmark					

In the Freeware edition, the **Database Collation** and **Database Version** fields are filled automatically, and will ensure that if the databases have different collations, it will still be possible to install.

Any other version of Version Manager will allow manually adding additional Object Databases:

Object Databases									** ^
📒 Insert Server Name 🏾 🍤 Install Object Data	abase 🛛 🍖 Uninstall Object Database	e 😋 Synchro	onize All Oł	ojects 🔰	🗙 Delete	e Old Ver	sion Histo	ory	:
Server Name 🔔 Server Instance 🛓	Database Name 🔺	Database Version	Install	Versi Man	Inst Verif	Obj Are	Dev Data		
DESKTOP-IBG0PQH	Demo Database NAV (9-0) W1	2016	\checkmark	\checkmark	\checkmark	\checkmark			
DESKTOP-IBG0PQH	Demo Database NAV (9-0) W1 DEV	2016	\checkmark	\checkmark	\checkmark	\checkmark			
DESKTOP-IBG0PQH	Demo Database NAV (9-0) W1 TE	2016	\checkmark	\checkmark	\checkmark	\checkmark			

As a help, a function has been added to Insert the default server name and instance on the line.

New servers can be installed and uninstalled on the fly. Regardless of the status of the other object databases.

The fields in the object databases are:

Server Name:	SQL server name
Server Instance:	SQL server instance
Object Database Name:	The database containing the objects that must be backed up.
Install:	On/Off switch for installing the database.
Version Manager Active:	Indicates that Version manager is installed and active for this database.
Installation Verified:	Indicates that the functionality has been installed and is ready to use for the Object database: It is only running if the field: Version Manager Active is marked.
Object are Synchronized:	The objects in the Version Manager database are in Sync with the object database.

Development Database:	If the field is marked, changes to the object will only be stored if the object is NOT locked. This is to prevent cascades of object changes during the development phase. The object will be stored as soon as it is unlocked.
Locked for Changes:	If the field is marked it is not possible to apply any changes to any objects in the database.

Object Databases	* [*] ^
🗄 Insert Server Name 🍤 Install Object Database 🐞 Uninstall Object Database 🕻 Syncronize All Objects 🗙 Delete Old Version History	»
Server Name Server Instance Database Name Database Name Install Versi Inst Obj Dev Version Man Verif Are Data	^

In the ribbon, there are a number of actions that will function for the **selected database only**:

Install Version Manager:	Installs the functionality necessary to run Version Manager.
Uninstall Version Manager:	Uninstalls the functionality necessary to run Version Manager, but leaves the data untouched.
Synchronize All Objects:	Creates a new base version of all objects in the database.
Delete History:	Deletes the history, but leaves the base versions untouched.

A Number of additional actions are available by clicking the double arrows >>

	** ^
	Old Version History
	Enable Object Backup
	Disable Object Backup
	🕒 Export License File 🎦 New
	🏰 Find Filter 茨 Clear Filter
Enable Object Backup:	Start making backup of the changes made to the objects all the Object Databases. The object backup can only be started if the installation has been verified.
Disable Object Backup:	Stop making backup of the changes made to the objects all the Object Databases. This can be turned on and off as often as necessary, it will just pick up where it left when restarted. However, changes made objects to objects in the disabled period will not be made.
Export License file:	This will export the license file that is stored, either in the master database or in the database individually.

The last FastTab of the setup is only visible with the Customer Edition or Partner Edition of Version Manager:

lds
iilds Number Series:

Builds number series: The number

The number series for making builds

The Ribbon

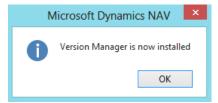
🚮 Edit - VM Setup								_		×
- HOME A	ACTIONS						CRO	NUS Dar	mark	A/S 🕜
View Cedit	S Install Version Manager	Vninstall Version Manager		Delete Old Version History	Version Manager Support	劇: OneNote 号 Notes し、Links	€ Refresh Clear Filter → Go to	PrevioNext		
Manage			Process			Show Attached	Page	2		

In the ribbon, there are a number of actions that will function for ALL databases:

Install Version Manager:	Installs the functionality necessary to run Version Manager.
Uninstall Version Manager:	Uninstalls the functionality necessary to run Version Manager, but leaves the data untouched.
Synchronize All Objects:	Creates a new base version of all objects in the database.
Delete History:	Deletes the history, but leaves the base versions untouched.
Enable Object Backup:	Start making backup of the changes made to the objects all the Object Databases. The object backup can only be started if the installation has been verified. The Action is hidden by default but can be retrieved by customizing the page.
Disable Object Backup:	Stop making backup of the changes made to the objects all the Object Databases. This can be turned on and off as often as necessary, it will just pick up where it left when restarted. However, changes made objects to objects in the disabled period will not be made. The Action is hidden by default but can be retrieved by customizing the page.
Version Manager Support:	Opens a new window with the Version Manager support system. If any issues occur, it will be possible to raise a ticket here. For users of the Freeware version it is possible to login with user id: Freeware and password Freeware123. Registered users will get a login with the confirmation mail.

Installing Version Manager

To install Version Manager, Click the Install Version Manager action and wait until the completion message:



Verify that the Installation Verified is marked:

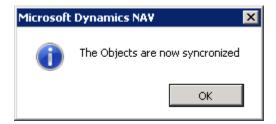
VM Setup

General			^
Path to Compare program:	C:\Program Files\Beyond Compare 4\BC	License Type:	Customer Edition 🗸
Program Parameters:	%1 %2	License No:	
Path for Development Env:	C:\Program Files (x86)\Microsoft Dyna	VM Version:	1.00
Expiry Date:	02-01-2017	Installation Verified:	

Lastly, all objects must be synchronized:

🚮 Edit - VM Setup						- 0	×
- HOME ACTIONS					CRO	ONUS Danmar	k A/S 🕜
View View Delete Manage	on Synchronize All Objects Process	Delete Old Version History	Version Manager Support	 ③E OneNote Notes Q Links Show Attached 	Clear Filter → Go to Pag		

Giving this message:



There will be no indication of the Object Backup is running, other than the check mark in the setup page:

Object Databases		^
📒 Insert Server Name 🏾 🍤 Install Object Database 🏾 🇞 Uninstall Object Database 🛛 🥰 Syncro	nize All Objects 🗙 Delete Old Version History	>>
Server Name Server Instance Database Name Database Version	Install Versi Inst Obj Dev Man Verif Are Data	^
DESKTOP-2AFPBLN Demo Database NAV (9-0)		
DESKTOP-2AFPBLN Demo Database NAV (9-0) DEV 2016		
DESKTOP-2AFPBLN Demo Database NAV (9-0) TEST 2016		

Going to the VM Objects in the Home Menu shows that all objects now exist in Version Manager.

M Objects - Microsoft Dynam	nics NAV									-		×
🗲 🕞 🔻 🔳 CRONUS Dann	mark A/S 🕨 Home 🕨	VM Objects					i	C Searc	h (Ctrl+F	3)		
HOME NAVIGATE										CRONUS	Danmark	A/S
Version Select Show Sho	ow as hart Refresh Clear Filter Page											
Role Center	VM Objects	•					-	Type to filte	er (F3)	ID		• •
> Job Queue Entries	vivi Objects						Filter: DESKTOP-24	EPRIN . "	• 'Demo	Database NA		
User Setup	C			l					- Demo	Database Inn		
No. Series	Server			Instan	ce		Database					
Assessment Hanse Category	DESKTOD-2AEDRI N	1					Demo Da	tabase NAV	/ (0_0) D	EV/		
Approval User Setup Workflow User Groups	DESKTOP-2AFPBLN	1					Demo Da	tabase NA\	/ (9-0) D.	EV		
Approval User Setup Workflow User Groups Workflows Data Templates List	DESKTOP-2AFPBLN	ID Name	Mo	Co	Date	Time	Demo Da	Handle Date		ndle		
Workflow User Groups Workflows			Mo	Co	Date 15-09-2015	Time 12:00:00		Handle	Ha Tin	ndle		
Workflow User Groups Workflows Data Templates List Base Calendar List Post Codes	Туре 🔔	ID 🔔 Name					Version List	Handle Date	Ha Tin 16 16:3	ndle ne		
Workflow User Groups Workflows Data Templates List Base Calendar List Post Codes Reason Codes	Type 🔔	ID 🔔 Name 3 Payment Terms			15-09-2015	12:00:00	Version List NAVW19.00,NAVDK9.00	Handle Date 02-10-20	Ha Tin 16 16:3 16 16:3	ndle ne 35:56		
Workflow User Groups Workflows Data Templates List Base Calendar List Post Codes Reason Codes Extended Text	Type 🔔 Table Table	ID Name 3 Payment Terms 4 Currency		y y	15-09-2015 15-09-2015	12:00:00 12:00:00	Version List NAVW19.00, NAVDK9.00 NAVW19.00, NAVDK9.00	Handle Date 02-10-20 02-10-20	Ha Tin 16 16:3 16 16:3	ndle ne 35:56 35:56		
Workflow User Groups Workflows Data Templates List Base Calendar List Post Codes Reason Codes	Type 🖍 Table Table Table	ID Name 3 Payment Terms 4 Currency 5 Finance Charge		y y	15-09-2015 15-09-2015 15-09-2015	12:00:00 12:00:00 12:00:00	Version List NAVW19.00, NAVDK9.00 NAVW19.00, NAVDK9.00 NAVW19.00	Handle Date 02-10-20 02-10-20 02-10-20	Ha Tin 16 16:3 16 16:3 16 16:3 16 16:3	ndle ne 35:56 35:56 35:56		
Workflow User Groups Workflows Data Templates List Base Calendar List Post Codes Reason Codes Extended Text	Type 🖍 Table Table Table Table	ID Name 3 Payment Terms 4 Currency 5 Finance Charge 6 Customer Price			15-09-2015 15-09-2015 15-09-2015 15-09-2015	12:00:00 12:00:00 12:00:00 12:00:00	Version List NAVW19.00, NAVDK9.00 NAVW19.00, NAVDK9.00 NAVW19.00 NAVW19.00	Handle Date 02-10-20 02-10-20 02-10-20 02-10-20	Ha Tin 16 16:3 16 16:3 16 16:3 16 16:3 16 16:3	ndle ne 35:56 35:56 35:56 35:56		
Workflow User Groups Workflows Data Templates List Base Calendar List Post Codes Reason Codes Extended Text	Type Table Table Table Table Table	ID Name 3 Payment Terms 4 Currency 5 Finance Charge 6 Customer Price 7 Standard Text			15-09-2015 15-09-2015 15-09-2015 15-09-2015 07-09-2012	12:00:00 12:00:00 12:00:00 12:00:00 12:00:00	Version List NAVW19.00, NAVDK9.00 NAVW19.00, NAVDK9.00 NAVW19.00 NAVW19.00 NAVW19.00	Handle Date 02-10-20 02-10-20 02-10-20 02-10-20 02-10-20	Ha Tin 16 16:3 16 16:3 16 16:3 16 16:3 16 16:3 16 16:3	ndle ne 35:56 35:56 35:56 35:56		
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Testing Version Manager

A quick test can be made by entering the Development Environment and make a change to an object:

Object Designer	r								
									_ 🗆
		Туре	ID	Name	Modified	Version List	Date	Time	Comp
Ta <u>b</u> le			3	Payment Terms		NAVW17.00,NAVDK7.00	07-09-12	12:00:00	
🛛 Page			4	Currency		NAVW17.00,NAVDK7.00	07-09-12	12:00:00	•
Report			5	Finance Charge Terms		NAVW17.00	07-09-12	12:00:00	•
			6	Customer Price Group		NAVW17.00	07-09-12	12:00:00	•
<mark>⊈</mark> odeunit			7	Standard Text		NAVW17.00	07-09-12	12:00:00	•
Query			8	Language		NAVW17.00	07-09-12	12:00:00	~
			9	Country/Region		NAVW17.00,NAVDK7.00	07-09-12	12:00:00	•
<u>X</u> MLport			10	Shipment Method		NAVW17.00	07-09-12	12:00:00	•
🖞 Menu <u>S</u> uite 📗			13	Salesperson/Purchaser		NAVW17.00	07-09-12	12:00:00	•
			14	Location		NAVW17.00	07-09-12	12:00:00	•
All			15	G/L Account		NAVW17.00	07-09-12	12:00:00	•
			17	G/L Entry		NAVW17.00	07-09-12	12:00:00	•
	►		18	Customer		NAVW17.00,NAVDK7.00	07-09-12	12:00:00	•
			19	Cust. Invoice Disc.		NAVW17.00	07-09-12	12:00:00	~
			21	Cust. Ledger Entry		NAVW17.00	07-09-12	12:00:00	

Add an extra field to the Customer table:

E	Ξ	Field No.	Field Name	Data Type	Length	Description	
	~	7188	Bill-To No. of Pstd. Shipments	Integer			1
	~	7189	Bill-To No. of Pstd. Invoices	Integer			
	~	7190	Bill-To No. of Pstd. Return R.	Integer			
	~	7191	Bill-To No. of Pstd. Cr. Memos	Integer			
	~	7600	Base Calendar Code	Code	10		
	•	7601	Copy Sell-to Addr. to Qte From	Option			
	~	13600	EAN No.	Code	13		
	•	13601	Account Code	Text	30		
	~	13604	OIOUBL Profile Code	Code	10		
	~	13605	OIOUBL Profile Code Required	Boolean			
•	~	50000	Shoe Size	Decimal			•

Now the Customer table is changed. Going back to the VM Objects it is obvious that something has happened:

🖞 YM Objects - Microsoft Dynamics NAV 📃 🗖 🗙											
CRONUS Danmark A/S > Home > VM Objects											
Home Actions Navigate CRONUS Danmark A/S											
History Database as List Chart											
Process View	1										
Role Center	VM Objects 🝷							16	5-04-16 Date	• × 🕑	
Job Queue Entries	Sorting: Server M	Name,Server I	nstance,Database	e Name, Type	,Company	Name,ID,Versi	ion No 🔻 👌 👌	🔻 🛛 Filter: N	IAV-CLIENT • NAVDEMO • 'Demo Datat	ase NAV (7-0)'	
User Setup	Server			Instan	се			Dal	tabase		
No. Series	NAV-CLIENT			NAVD	EMO			De	amo Database NAV (7-0)		
Approval User Setup											
Approval Templates	T	10		N	<i>C</i>	DL OD Chu		T'	Harriston Link	Line die Debe	
Data Templates List	Туре		Name	Mod	Com	BLOB Size		Time	Version List	Handle Date	
Base Calendar List	Table	18	Customer	₹	V	92876	16-04-2016	13:56:05,	NAVW17.00,NAVDK7.00	16-04-2016	
Post Codes											
Deres Calas											

The Version History will tell the story:

🚮 Edit - VM Ver	sion History - Tab	ile - 18						- 🗆	×
HOME	ACTIONS						CF	RONUS Danmar	'k A/S 🕜
10 2			C 🏹	A4					
Compare Resto Objects Obje	re Export ct Object as Tex		efresh Clear Filter	Find					
Pro	cess	View	Page						
VM Version	History -						Type to filter (F3) Version List	*	→ ~
						Filter: Table • '' • 18 • '	Demo Database NAV (9-0) DEV' • DES	KTOP-2AFPBLN	4+**
Version 🖌	Change Type	Restored Date From Version	Time	Version List	Developer Comment	Name	Changed By	Handle Date	Handle
	Base Version	0 23-03-2016	5 12:00:00	NAVW19.00.00.45480,NAVDK9.00.00.454		Customer	WORKGROUP\DESKTOP-2AFPBL	02-10-2016	16:53:52
	2 Modify	0 02-10-2016	5 16:58:13	NAVW19.00.00.45480, NAVDK9.00.00.454		Customer	MicrosoftAccount\peikb@hotm	02-10-2016	16:58:13

Install Version Manager Help files

In order to get online help in the newly installed Version Manager it is necessary to install the help files separately.

The help files can be found in the file Version_Manager_Help_Files.zip that can be downloaded from the Version Manager web page. The zip files consist of all the html files necessary to get on-line help in Version Manager.

📙 🛃 📕 🖛		Værktøjer til komprimeret mapp	Source		_		×
Fil Hjem Del	Vis	Pak ud					~ 🕐
← → • ↑ 📙 « '	Version_Ma	anager_Help_Files.zip > Source	2 >	<u>ت</u> ~	Søg i Source		P
VH 🖌	Navr	^ 1 5	Туре		Komprimeret størrel	Beskytt	tet ^
💻 Denne pc	e F	R_6185479.htm	HTM-fil		2 KB	Nej	
E Billeder	e	[_6185471.htm	HTM-fil		2 KB	Nej	
Dokumenter	e	[_6185471_1.htm	HTM-fil		1 KB	Nej	
h Musik	e	[_6185471_2.htm	HTM-fil		1 KB	Nej	
Overførsler		[_6185471_3.htm	HTM-fil		1 KB	Nej	
Skrivebord		[_6185471_4.htm	HTM-fil		1 KB	Nej	
	e	[_6185471_5.htm	HTM-fil		1 KB	Nej	
Videoer	e	[_6185471_6.htm	HTM-fil		1 KB	Nej	
🏪 Lokal disk (C:)	e	[_6185471_7.htm	HTM-fil		1 KB	Nej	
🕳 VirtuelData (D:)	ell	[_6185471_8.htm	HTM-fil		1 KB	Nej	
Lokal disk (F:)	e	[_6185471_9.htm	HTM-fil		1 KB	Nej	~
	/ <						>
217 elementer							:==

Next it is necessary to locate the help files for the installed Dynamics NAV help server. The files will often be installed in a folder in the IIS. An example could be:

C:\inetpub\wwwroot\DynamicsNAV90Help\help\en

But the location can vary. The exact location can be found in the IIS.

Internet Information Services (IIS) Mar	nager		
C C C P P P P P P P P P P P P P P P P P	Sites Microsoft Dynamics NAV 20	16 Help 🕨	🐱 🖾 🚱 -
File View Help			
Connections			Actions
Start Page OVNAMICS01 (CONTOSO\admin Application Pools Stes Microsoft Dynamics N Microsoft Dynamics N STE_2 STE_56968103	Edit Permissions Add Application Add Virtual Directory Edit Bindings Manage Web Site Refresh	Mi cro sof t Dy na mi cs NA V 20 16 He Ip Ho	Explore • Edit Permissions • Edit Site Bindings Basic Settings • View Applications • View Virtual Directories • Manage Web Site • Start • Start • Browse Web Site • Browse V4000 (http) • Advanced Settings • Configure • Failed Request Tracing • Limits •
Ready	Switch to Content View		1 .:

This will show the source directory:

J S Marthub + wwwn	oot > DynamicsNAV90Help >	✓ Search Dynamics!	VAV90Help
Organize 👻 🔭 Open 🛛 Incl	ude in library 🔻 Share with 👻 New folder		= - 1 🤅
☆ Favorites	Name	Date modified	Туре
📃 Desktop	App_GlobalResources	3/11/2016 1:05 AM	File folder
鷆 Downloads	aspnet_client	11/7/2015 1:29 AM	File folder
💹 Recent Places	퉬 bin	3/11/2016 1:05 AM	File folder
) css	3/11/2016 1:05 AM	File folder
🥽 Libraries	🄑 help	3/11/2016 1:05 AM	File folder
Documents	🌗 images	3/11/2016 1:05 AM	File folder
🌛 Music	鷆 js	3/11/2016 1:05 AM	File folder
Pictures	🔁 Main	9/16/2015 12:34 AM	ASP.NET Server Pa
😸 Videos	📴 Search	9/16/2015 12:34 AM	ASP.NET Server Pa
	📫 Web	9/16/2015 12:34 AM	XML Configuratio

Click the Help directory:

~			
🌀 🔵 🗢 📕 « Inetpub 🕨 www.roo	t ► DynamicsNAV90Help ► help ►	✓ Search help	Q
Organize 🔻 🔚 Open 🛛 Includ	de in library 🔻 Share with 💌 New folder		:= • 🔟 🔞
🜟 Favorites	Name	Date modified	Туре
🧮 Desktop	鷆 da-DK	3/11/2016 1:06 AM	File folder
鷆 Downloads	鷆 en	3/11/2016 1:05 AM	File folder
🕮 Recent Places	🌗 local	3/11/2016 1:05 AM	File folder
	💰 feedback	9/16/2015 12:34 AM	JScript Script File
🥽 Libraries	shortcutCold	9/16/2015 12:34 AM	GIF image
Documents			

Copy the content of the "source" directory of the zip file into the "en" directory of the iis help files.

Uninstall Version Manager

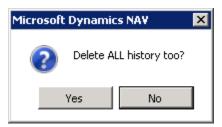
The uninstallation process can be performed from the setup page:

Edit - VM Setup								- 0		×
View Delete Manage	Install Version Manager	Uninstall Version Manager	Synchronize All Objects Process	Delete Old Version History	Version Manager Support	Show Attached	CRC CRefresh Clear Filter → Go to Pag			'S 🕜
General									^	^

The uninstallation process is performed in five easy steps:

- 1) Uninstall Version Manager
- 2) Delete the Setup page
- 3) Delete all VM objects
- 4) Remove Version Manager from the IT Manager Role Center
- 5) Remove Version Manager from the MenuSuite

Uninstalling Version Manager will ask if you want to delete all history too:



Then a message that the Version Manager Scripts has been removed from the SQL server:



Next Deleting the setup will also remove all synchronized objects and setup.

The Objects must be deleted in the Development Environment.

Filter for ALL objects and Version list of *VM*.

Then Mark All and delete the objects:

Г		[[[[[= .		
Table -		ID	Name	Modified	Version List	Date	Time	Comp
			VM Object	~	VM0.91	01-01-17	12:00:00	•
) Page			VM Object Metadata		VM0.91	01-01-17	12:00:00	~
Report –			VM Setup		VM0.91	01-01-17	12:00:00	
Codeunit			VM Object Database		VM0.91	01-01-17	12:00:00	•
			VM Build Header		VM0.91	01-01-17	12:00:00	
Query –			VM Build Object	¥	VM0.91	01-01-17	12:00:00	
XMLport			VM Activities	¥	VM0.91	01-01-17	12:00:00	
			VM Build Server	¥	VM0.91	01-01-17	12:00:00	
Menu <u>S</u> uite			Version Manager	· ·	VM	01-01-17	12:00:00	~
All			VM Build Roll Back Object	· ·	VM0.91	01-01-17	12:00:00	~
<u> </u>			Aggregate Objects	✓	VM0.91	01-01-17	12:00:00	~
-			Version Manager	✓	VM0.91	01-01-17	12:00:00	
-	×		VM Management	✓	VM0.91	01-01-17	12:00:00	~
-	×		VM Installation	~	VM0.91	01-01-17	12:00:00	~
-	×		VM TestFileHandling	~	VM0.91	01-01-17	12:00:00	~
_	X		VM Clean Up Data	~	VM0.91	01-01-17	12:00:00	~
_	\sim		Version Manager	~	VM	01-01-17	12:00:00	
L	(0)		Version Manager	~	VM0.91	01-01-17	12:00:00	
L			VM Objects	~	VM0.91	01-01-17	12:00:00	
_		6185472	VM Version History	~	VM0.91	01-01-17	12:00:00	
_		6185473	VM Setup	~	VM0.91	01-01-17	12:00:00	
L		6185474	VM Object Databases	· ·	VM0.91	01-01-17	12:00:00	۷
		6185475	VM Builds	~	VM0.91	01-01-17	12:00:00	
		6185476	VM Build Objects	~	VM0.91	01-01-17	12:00:00	
		6185477	VM Activities	~	VM0.91	01-01-17	12:00:00	
		6185478	VM Build Servers	~	VM0.91	01-01-17	12:00:00	
		6185479	Version Manager	~	VM0.91	01-01-17	12:00:00	
		6185480	VM Build Roll Back Objects	~	VM0.91	01-01-17	12:00:00	
	=	6185481	VM Select Build Servers	~	VM0.91	01-01-17	12:00:00	
	=	6185482	VM Restore Warning	¥	VM0.91	01-01-17	12:00:00	
		6185483	Object per Database	¥	VM0.91	01-01-17	12:00:00	
		6185484	Compare Objects	~	VM0.91	01-01-17	12:00:00	

Lastly, the Activities page must be removed from the Role Center and all Objects must be removed from the MenuSuite.

Backup/Restore of Version Manager

Version manager can be backed up and restore with the same procedure as recommended with the standard Dynamics NAV solution, since the solution is stored inside the Microsoft Dynamics NAV SQL database. When backup is performed on the Microsoft Dynamics NAV database, there is also made backup of the Version Manager add-on.

How Do I: Backup and Restore in a Multitenant Environment in Microsoft Dynamics NAV 2013 R2

On restoring the Version Manager database or any of the involved databases Version Manager must be uninstalled and installed and all databases must be synchronized again to ensure that all the Version Manager functionality is functioning and consistent. On uninstalling Version Manager, it is important to answer **No** when asked to **Delete All History** as well.

Upgrading Version Manager to a newer Dynamics NAV version

Since Version Manager only affects Role Center objects, the upgrade process is fairly simple. The upgrade process is:

To prepare the upgrade:

- Uninstall Version Manager from the setup page.
- Answer No to the question if you want to **Delete All History**.

Perform all steps of the upgrade process according to the Microsoft Dynamics NAV guidelines.

After the upgrade:

- Implement Version Manager again in the IT-Manager Role Center and all other Role Centers that previously were added with the Version Manager Activities page as described in chapter: <u>Implement Version Manager in the IT-Manager Role Center</u>.
- Install Version Manager from the Version Manager setup page as described in chapter: <u>General Setting</u> <u>up</u>.
- Synchronize all databases

Upgrading Version Manager itself to a newer version

The development of Version Manager is a continuous process. The new versions will be advertised on the Version Manager support page: <u>https://versionmanager.mantishub.io</u> or on the version manager website: <u>http://versionmanager.dk</u>.

The upgrade consists of two parts:

- Upgrading the Version Manager objects
- Upgrading the Version Manager Script files

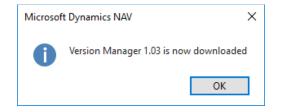
To upgrade the Version Manager objects, download version Manager objects from

- Dynamics NAV 2013 R2: http://ba-consult.dk/versionmanager/071/VM 71.zip
- Dynamics NAV 2015: <u>http://ba-consult.dk/versionmanager/080/VM_80.zip</u>
- Dynamics NAV 2016: <u>http://ba-consult.dk/versionmanager/090/VM_90.zip</u>
- Dynamics NAV 2017: <u>http://ba-consult.dk/versionmanager/100/VM_100.zip</u>

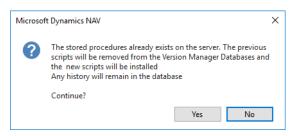
After importing the objects enter the setup page again

🚮 Edit - VM Setup	_	×
HOME ACTIONS		0
Synchronize Manager Manager Support General		
VM Setup		
General		^
Path to Compare program: Im Files\Beyond Compare 4\BCompare.exel License Type: Partner Edition Program Parameters: %1 %2 License No: 6417497		 ~

Click the Download Version Manager action.



When this message appears, the new scripts have been downloaded and Version Manager can be installed by clicking the Install Version Manager action. The following warning will appear:



After answering yes to this, Version Manager has been updated.

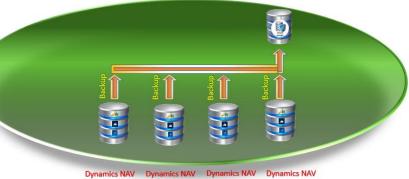
Lastly, all databases must be synchronized.

Installing Version Manager on multiple SQL Servers

If Version Manager and the monitored databases are situated on multiple SQL servers as described below, it is necessary to perform a number of extra tasks.

Option 3

Version Manager objects in a separate database Object databases can be in the same server or in different servers



1) Firstly, SQL server login must be created to run Version Manager.

In this case a user named VmNav has been created using SQL authentication.

Select a page	式 Script 👻 📑 Help	
Image: General Image: Server Roles Image: User Mapping Image: Securables Image: Status	Login name: MmNav C Windows authentication C SQL Server authentication	Search
	Password:	
	Confirm password:	

The Server roles must be set up like this:

🚪 Login Properties - ¥mNav		_ 🗆 ×
Select a page	🖾 Script 🗸 📑 Help	
Server Roles	Server role is used to grant server-wide security privileges to a user.	
🚰 Securables		
🚰 Status	Server roles: bulkadmin dicreator diskadmin processadmin v public v secutiyadmin serveradmin sysadmin	

And the user mapping like this:

Select a page Script ~ Help Server Boles Users mapped to this login: User Mapping Database User Securables Default Schem Status Demo Database NAV (9 VmNav model model msdb tempdb	na
Server Roles Users mapped to this login: ✓ User Mapping Map Database User ✓ Securables ✓ Demo Database NAV (9 VmNav ✓ Demo Database NAV (9 VmNav dbo ✓ master model msdb	
Wser Mapping User mapped to this login: Securables Map Database User Default Schem Default Schem Image: Status Image: Status <t< th=""><th></th></t<>	
Securables Map Database User Default Schem T Demo Database NAV (9 VmNav dbo mater madel msdb	
master model msdb	
model msdb	
☐ msdb	
Guest account enabled for: Demo Database NAV (9-0)	
Database role membership for: Demo Database NAV (9-0)	
Connection db accessadmin	
db backurperator	
Server: db_ddcatareader	
db_datawriter	
Connection: db_ddladmin sa db_denydatareader	
✓ db_owner	
db_securityadmin	
Progress V public	
Ready	
3455°	
ОК	

The user must exist like this on ALL SQL server involved.

2) The Distributed Transaction Coordinator service must be activated and started:

* 1) chan 1 cam				
Services (Local)	🔅 Services (Local)			
	Distributed Transaction	Name 🔶	Description Status	Startup Type Log On
	Coordinator	OFS Namespace	Enables yo Started	Automatic Local Sy
		OFS Replication	Enables vo Started	Automatic Local S
	Stop the service Restart the service	C DHCP Client	Registers a Started	Automatic Local Se
	Restart the service	Diagnostic Policy Service	The Diagno Started	Automatic (D Local Se
		Diagnostic Service Host	The Diagno	Manual Local Se
	Description:	Diagnostic System Host	The Diagno	Manual Local Sy
	Coordinates transactions that span multiple resource managers, such as	S Disk Defragmenter	Provides Di	Manual Local S
	databases, message queues, and file	Distributed Link Tracking Client	Maintains li	Manual Local S
	systems. If this service is stopped, these	Distributed Transaction Coordinator	Coordinate Started	Automatic Networ
	transactions will fail. If this service is disabled, any services that explicitly	ONS Client	The DNS Cl Started	Automatic Networ
	depend on it will fail to start.	ONS Server	Enables DN Started	Automatic Local S
	1 ·	Encrypting File System (EFS)	Provides th	Manual Local S
	1	Extensible Authentication Protocol	The Extens	Manual Local S
		S File Replication	Synchroniz	Disabled Local S
	1	European Contract Provider Host	The FDPH Started	Manual Local Se
		Eunction Discovery Resource Publication	Publishes t	Manual Local Se
	1	Group Policy Client	The servic Started	Automatic Local S
	1	Arealth Key and Certificate Management	Provides X	Manual Local S
	1	Human Interface Device Access	Enables ge	Manual Local S
	1	Hyper-V Data Exchange Service	Provides a Started	Automatic Local Se
	1	Hyper-V Guest Shutdown Service	Provides a Started	Automatic Local S
		Hyper-V Heartbeat Service	Monitors th Started	Automatic Networ
	1	Hyper-V Time Synchronization Service	Synchroniz Started	Automatic Local Se
	1	Hyper-V Volume Shadow Copy Requestor	Coordinate Started	Automatic Local S
		3		

3) MSDTC must be configured in the Component Services:

Component Services	_ 🗆 🗙
💩 File Action View Window Help	<u>_8</u> ×
🗇 🔿 😰 💿 🔒 🛛 🗖 Local DTC Properties	? 🗙
□ Console Root □ © comporters Services □ □ <th>able SNA LU 6.2 Transactions</th>	able SNA LU 6.2 Transactions
	J J

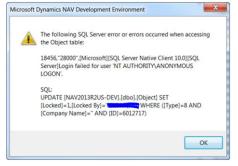
4) Version Manager must be set up to SQL authentication:

								Х
HOME AC	TIONS					CRONUS Inte	ernational Lt	d. (
View Cedit View Delete Manage	🏷 Unins	Version Manager XD tall Version Manager 🔀 Version Manager Reserved to the second seco	ersion History ager Support	Show Attack		Refresh Clear Filter Go to Pag		15
VM Setup General							^	1
Path to Compare p Program Paramete Path for Developm Expiry Date:	rs:	Compare 4\BCompare.exe %1 %2 C:\Program Files (x86)\M 09-01-2017	License Type: License No: VM Version: Installation Ver	rified:	Partne 54722 1.05	er Edition 59	~	
SQL Server VM							^	1
SQL Server User ID:		VmNav	SQL Server Pas Windows Auth		••••	•••••		
							~	e.
Version Manager	Databas	e						

5) Usually the change does not require a restart of anything, but experience has shown that sometimes it is necessary to restart the MSDTC service. This can be done by these commands:

msdtc -uninstall msdtc -install

6) In very rare instances changing objects in one of the monitored databases gives an authentication error. In this case the SQL server instance must be restarted. If it is a live server, it will have to wait until an appropriate and Version Manager will have to be uninstalled until this can be done.



Enabling use of Partner License

For the Version Manager users who do not have the Application Builder, the Solution Developer or a Developer License, it is possible to let a Dynamics NAV partner who also has purchased the full Version Manager Partner edition, utilize the full compare and export functionality.

This can be done by importing the partner license from the Version Manager setup page:

📶 Edit - VM Setup				_		×
HOME ACTIONS			C	RONUS Inter	national	Ltd. 🕜
Install Version Manager Manager	n Synchronize All Objects General	ort				
VM Setup						~
Path to Compare program:	Program Files\Beyond Compare 4\BCompare.exe	License Type:	Object Backup			~
Program Parameters:	%1 %2	License No:	5106225			
Path for Development Env:	C:\Program Files (x86)\Microsoft Dynamics NAV	VM Version:	1.09			
Expiry Date:	31-12-2017	VM Script Version:	1.03			
		Installation Verified:	\checkmark			
SOL Server VM						

In order to facilitate this, it is necessary for one of two conditions to be met:

 The Dynamics NAV license must be stored in the database.
 This can be defined in the development environment menu File/Database/Alter

Alter D	atabase						×
General	Database Files	Transaction Log Files	Collation	Options	Integration	Advanced	
Objects <u>C</u> onver	rt identifiers	"V%][
✓ Sav	e license in databa	ase					
					ОК	Cancel	Help

This is highly recommended and will not have consequences for any other databases.

- The other possibility is to grant the user running the Version Manager instance access to the table [ndo\$srvproperty] in the [master] database.
- This can be done with two simple SQL scripts:

```
USE [master]

GO

GRANT SELECT [dbo].[$ndo$svrproperty] TO {user id}

GO

and

USE [master]

GO

GRANT UPDATE [dbo].[$ndo$svrproperty] TO {user id}
```