Version Manager

Protect your Dynamics NAV source code

Make it possible to detect changes made to the business logic or table structure in a Microsoft Dynamics NAV database.

During an installation phase, many different parties are involved in implementing a new Dynamics NAV solution:

- The NAV Partner, who will often have the main responsibility
 - Independent Software Vendors delivering solutions for:
 - o EDI
 - o Payment Management
 - o Shop Floor Control
 - Capacity planning
 - Barcode scanners at the Warehouse
 - Super users making simple changes to pages and Role Centers
- Hosting partners maintaining the solution

A backup made every night will solve the problem of recreating the original source code if an implemented build proves to be faulty and needs to be rolled back, but this will only work if there are no structural changes made to the database structure (new or changed fields or new tables). And it does not give the answer to: who-did-what-when.

Version Manager records all changes made to any object in a Microsoft Dynamics NAV database. It provides functionality for:

- Object history
- Object backup
- Object restore
- Object compare
- Export license file
- Export earlier versions of objects to a text file
- Managing builds and making object roll-out and roll-back package
- Managing objects in up to 10 databases

Bech-Andersen Consult ApS Bolbrovej 121 DK-2960 Rungsted







Object Backup

Detect and back-up changes to the source code of multiple Microsoft Dynamics NAV databases into one database.

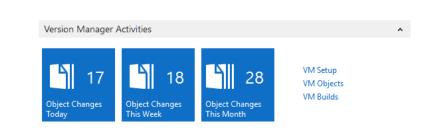
Monitor the changes directly on the IT Managers Role Center.

Automatically backup all changed objects.

Provide an audit trail of all changed objects for internal and external audit.

| | | | | | | | Filter | : Codeunit • '' • 72000 • 'Demo |
|---------------|----------------|--------------------------|------------|----------|------------------------|----------------------|-------------------|---------------------------------|
| Version No | Change Type | Restored From Version | | Time | Version List | Developer Comment | Name | Changed By |
| | 1 Base Version | 0 | 04-01-2016 | 13:06:28 | DK1.00,RN1.00,WW1.00 | | Rental Management | SqlService |
| | 2 Modify | 0 | 06-01-2016 | 23:36:17 | DK1.00,RN1.00,WW1.00 | | Rental Management | DESKTOP-I9MRMRK\peikb |
| | 3 Modify | 0 | 06-01-2016 | 23:36:17 | DK1.00, RN1.00, WW1.00 | | Rental Managemen | DESKTOP-I9MRMRK\peikb |
| | 4 Delete | 0 | 06-01-2016 | 23:36:17 | DK1.00, RN1.00, WW1.00 | | Rental Managemen | DESKTOP-I9MRMRK\peikb |
| | 5 Modify | 0 | 06-01-2016 | 23:37:28 | DK1.00, RN1.00, WW1.00 | | Rental Management | DESKTOP-I9MRMRK\peikb |
| | 6 Modify | 0 | 06-01-2016 | 23:43:17 | DK1.00 RN1.00 WW1.00 | | Rental Management | DESKTOP-I9MRMRK\peikb |

VM Version History -



Object Compare

Compare the source code of two different versions and highlight the changes directly.

Restore Object

Restore an object from an earlier version

Export Object

Export an object from any version to a text file.

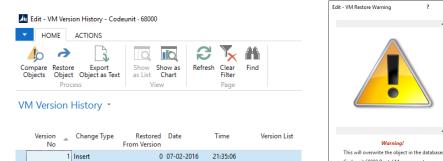
Build Management

Assemble objects in specific versions to a build.

The build can be Rolled-Out to different databases e.g. from the development database to one or more test servers or even to the live database.

A copy of the original object on the destination database will be saved for rollback purposes.

| | unit-68000-2.txt <> Codeunit-68000-3.txt - Text Compare - Beyond Compare | | - a |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| sion | File Edit Search View Tools Help | | New version avail |
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| = 0 | \temp\Codeunit-68000-2.bd 🗸 🐎 🗁 🛀 | C:\temp\ | Codeunit-68000-3.txt 🗸 🐄 🍉 |
| | 17-02-2016 21:40:00 6.124 bytes Everything Else + ANSI + PC | 07-02-20 | 016.21:40:01 7.478 bytes Everything Else + ANSI + PC |
| | 00 PROFERTIES | 10 11 12 | PROPERTIES OnRun-BEGIN INTERTOLINES |
| | 28 ValuedQty := CalcCapQty; 29 | 28 29 | ValuedQty := CalcCapQty; |
| - | IF Item.dBT(Titem.Ho.") THEN IF HOT Calling the three the three | 20 30 31 32 33 | IF Item.0F("Item No.") THEM IF NOT Calledronodjustement THEN Item.TESTFIELD("Inventory Value Zero",FALSE); |
| | • | 34 35 35 37 37 38 | //COMDL2 Start WITH treahiling DD BEDIN IF EmptyLine AND NOT Correction AND NOT Adjustment THEN IF NOT IsvalueEntryForDeletedItem THEN EXIT; |
| | | 39 40 41 42 | <pre>ItemJnlCheckLine.SetCalledFromInvtPutawayPick(CalledFromInvtPutawayPick); ItemJnlCheckLine.SetCalledFromAdjustment(CalledFromAdjustment);</pre> |
| | | 43 | ItemJnlCheckLine.RunCheck(ItemJnlLine); |
| | | 44 | TE "Desureet Date" - 00 THEN |



| 140 | rioni version | |
|----------|---------------|----------|
| 1 Insert | 0 07-02-2016 | 21:35:06 |
| 2 Modify | 0 07-02-2016 | 21:36:04 |
| 3 Modify | 0 07-02-2016 | 21:39:11 |
| | | |



Type to

| 🌆 Edit - VM Builds | | | | | | | | | | | - | | × |
|---------------------------|-------------------|------------------------------------------------------|------------------|-------------------------------------------|---------------|----------------|---------------------------------|-----------|------------|------------------------|-----------------|------------|----|
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| VM Builds • | | | | | | | | | Type to | o filter (F3) Build Ne | • • | → 、 | ~ |
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| Server Name | Server Instance 🔺 | Database Name | _ Object Type | Company Name | Obj | ect _ C No | Object Name | Version N | lo Old Ver | sion List New Vers | ion List | | i |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Table | | | 68000 R | ental Header | | 1 RN | RN1.01 | | | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Table | | | 68001 R | ental Line | | 1 RN | RN1.01 | | | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Table | | | 68003 R | ental Entries | | 1 RN | RN1.01 | | | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Report | | | 68000 R | ental Order | | 1 RN | RN1.01 | | | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Report | | | 68001 R | ental Invoice | | 1 RN | RN1.01 | | | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Codeu | nit | | 68000 R | ental Manage | | 4 RN | RN1.01 | | | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Page | | | 68000 R | ental Order | | 1 RN | RN1.01 | | | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Page | | | 68001 R | ental Lines | | 1 RN | RN1.01 | | | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Page | | | 68003 R | ental Entries | | 1 RN | RN1.01 | | | • |
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| | Server Instance | Database Name | _ Туре | Company Name | * | 10 <u> </u> | lame | Mo | Co | BLOB Size Date | Time | Versie | ie |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Table | | | 68000 R | ental Header | | | 780 21-01-2016 | 17:32:56 | RN | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | Table | | | 68001 R | ental Line | | | 684 03-01-2016 | 14:59:50 | RN | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Table | | | 68003 R | ental Entries | | | 676 03-01-2016 | 15:00:27 | RN | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | Report | | | 68000 R | ental Order | | | 69576 21-01-2016 | 17:33:11 | RN | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Report | | | 68001 R | ental Invoice | | | 69760 21-01-2016 | 17:33:16 | RN | |
| | | | | | | | | _ | _ | | | | |
| DESKTOP-I9MRMRK | | Demo Database NAV (8-0) Ob | j Codeu | nit | | 68000 R | ental Management | | | 352 07-02-2016 | 21:35:06 | RN | |

Object

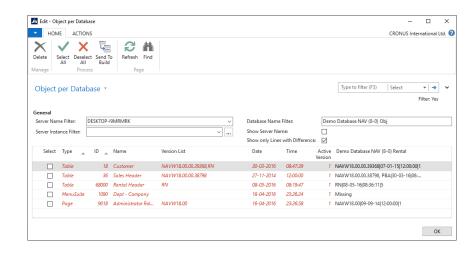
Management

Compare the objects of up to ten databases.

All differences are highlighted to make it easier to spot.

The date, time, version list and active object version are shown for each object.

The "Show only lines with differences" function makes it easier to get the overview over all changes between the different databases. I Edit - Object per Database × • CRONUS International Ltd. HOME ACTIONS Select Deselect Send To All All Build × C # Refresh Find Type to filter (F3) Select - - v Object per Database • No filters applied General Server Na Demo Database NAV (8-0) Obj me Filter Database Name Filter Server Instance Filter Show Server Name: Show only Lines with Diffe Active Demo Database NAV (8-0) Re Select Туре ID Name Version List Date Time Table 3 Payment Terms NAVW17.00 07-09-2012 12:00:00 1 NAVW17.00|07-09-12|12:00:00|1 Table 4 Currency NAVW18.00.00.38457 31-10-2014 12:00:00 1 NAVW18.00.00.38457[31-10-14]12:00:00[1 Table 5 Finance Charge Ter... NAVW18.00.00.38798 27-11-2014 12-00-00 1 NAVW18.00.00.38798|27-11-14|12:00:00|1 1 NAVW17.10|23-09-13|12:00:00|1 Table 6 Customer Price Gro... NAVW17.10 23-09-2013 12:00:00 Table 7 Standard Text NAVW17.00 07-09-2012 12:00:00 1 NAVW17.00107-09-12112:00:0011 1 NAVW17.00|07-09-12|12:00:00|1 NAVW17.00 07-09-2012 12:00:00 Table 8 Language Table 9 Country/Region NAVW17.00 07-09-2012 12:00:00 1 NAVW17.00|07-09-12|12:00:00|1 1 NAVW17.00|07-09-12|12:00:00|1 NAVW17.00 07-09-2012 12:00:00 Table 10 Shipment Method Table 13 Salesperson/Purch NAVW17.00 07-09-2012 12-00-00 1 NAVW17 0007-09-12112-00-0011 Table NAVW18.00 09-09-2014 NAVW18.00|09-09-14|12:00:00|1 14 Location 12:00:00 Table Table 15 G/L Account NAVW18.00 09-09-2014 12:00:00 1 NAVW18.0009-09-14(12:00:00)1 09-09-2014 17 G/L Entry NAVW18.00 12:00:00 1 NAVW18.00|09-09-14|12:00:00|1 Table 18 Custome NAVW18.00.00.39368.RN 30-03-2016 08:47:39 1 NAVW18.00.00.39368107-01-15112:00:001 07-09-2012 Table NAVW17.00 NAVW17.00|07-09-12|12:00:00|1 19 Cust. Invoice Disc. 12:00:00 Table 21 Cust. Ledger Entry NAVW18.00.00.38457 31-10-2014 12:00:00 1 NAVW18.00.00.38457[31-10-14]12:00:00[1 Table 23 Vendor NAVW18.00.00.39368 07-01-2015 12:00:00 NAVW18.00.00.39368|07-01-15|12:00:00|1 Table 24 Vendor Invoice Disc. NAVW17.00 07-09-2012 12:00:00 1 NAVW17.00107-09-12112:00:0011 Table 25 Vendor Ledger Entry NAVW18.00.00.38457 31-10-2014 12:00:00 NAVW18.00.00.38457|31-10-14|12:00:00|1 Table 27 Item NAVW18.00.00.40262 13-03-2015 12:00:00 1 NAVW18.00.00.40262[13-03-15]12:00:00[1 Table 30 Item Translation NAVW17.00 07-09-2012 12:00:00 1 NAVW17.00|07-09-12|12:00:00|1 NAVW18.00.00.38798 Table 32 Item Ledger Entry 27-11-2014 12:00:00 1 NAVW18.00.00.38798|27-11-14|12:00:00|1 NAVW18.00.00.38798, PBA|30-03-16|08: 27-11-2014 Table Sales Header NAVW18.00.00.38798 12:00:0 Table 37 Sales Line NAVW18.00.00.40262 13-03-2015 12:00:00 1 NAVW18.00.00.40262113-03-15112:00:0011 38 Purchase Header NAVW18.00.00.40262 13-03-2015 12:00:00 1 NAVW18.00.00.40262[13-03-15]12:00:00] Table Table 39 Purchase Line NAVW18.00.00.40262 13-03-2015 12:00:00 1 NAVW18.00.00.40262[13-03-15]12:00:00[1 ОК



If the databases need to be synchronized, a build can be made directly from the view. Microsoft Dynamics NAV X
Create a new build with all selected lines?
Yes No

Now the build can be finalized and distributed to the destination database.

| | VM Builds | | | | | | | | | | - 0 | × |
|----------|---------------------------|----------------------------------|--------------------|--------------------------------------------|------------------|----------------------------------------|-------------------|----------------|------------------------------|-------------------|--------------------|------------|
| • н | OME ACTIONS | | | | | | | | | | CRONUS Internation | nal Ltd. (|
| New New | View List Manage | Roll-Out Build Roll-Back Objects | Lock Build Process | Build Apply Versic Servers Date and Tim | e to All as List | | OneNote Note | | Clear Find Filter Page | | | |
| iild No | Comment Text | N | ew Version List | Replace Version List | | New Object Time | Blank Respi Mo | onsible Person | Appl | ying User ID | Status | ^ |
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| DECKT | OP-I9MRMRK | Demo Datab | ase NAV (8-0) Obj | Table | | | 18 Customer | | 1 NAVW18.00 | 0.00.3936 NAVW18 | .00.00.3936 | |
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Extensions

Extension

Logging

Keep track of all installed or uninstalled extensions in on-premise versions.

Supports booth extensions V. 1.0:

- **Dynamics NAV 2016**
- Dynamics NAV 2017

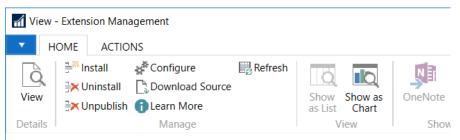
And extensions V.2.0:

- **Dynamics NAV 2018** _
- **Dynamics 365 Business Central** _

It has even been prepared to work with Extensions V. 3.0.

Version Manager even enables blocking for users to install extensions to the Dynamics NAV or Business Central from the Version Manager Setup page.

Any apps (extensions) that are installed or uninstalled will appear on the Version Manager Activities page.



Extension Management -

| AdditionalInfo | Name | Version |
|----------------|------------------------------------|----------------|
| Installed | Business Central Intelligent Cloud | v. 1.0.29777.0 |
| Installed | Essential Business Headlines | v. 1.0.29777.0 |
| Installed | Intelligent Cloud Base | v. 1.0.29777.0 |
| Installed | Manufacturing Bonus | v. 1.0.0.0 |
| Installed | PayPal Payments Standard | v. 2.0.29777.0 |
| Installed | Sales and Inventory Forecast | v. 2.0.29777.0 |
| | | |

| | | | | | | | * |
|---------------------|--------------|--------------|--------------|----------------------------|-------------------------|-----------------------|--------------------------|
| atabase 🛯 🕻 S | ynchronize | e All Obj | ects 🗙 | Delete Old Ver | sion History 🕨 | Enable Object | Backup |
| Database Version | Install | Versi Man | | Objects Are Syncronized | Development Database | Locked for changes | Locked for Extensions |
| 2018 | \checkmark | \checkmark | \checkmark | \checkmark | | | |
| D365BC | \checkmark | \checkmark | \checkmark | \checkmark | | | |





Nav App Changes Today -

Handle Date • is

Show results:

+ Add Filter

× Where

Clicking the Nav App Changes Today cue will show all changes made to apps on all the database under surveillance of Version Manager, registering:

- Change Type
- Machine ID it was changed from
- Change date _
- _ Change time

| Database Name 🔺 | Versi Changed By No | Change Type | Name |
|------------------|-------------------------------|----------------|-----------|
| Demo Database NA | 4 WORKGROUP\DESKTOP-KJTE60T\$ | Insert | Manufactu |
| Demo Database NA | 5 WORKGROUP\DESKTOP-KJTE60T\$ | Delete | Manufactı |
| | | | |

20-04-19

Editions

Freeware Edition

The Freeware Edition provides a 60 days trial-period to test if Version Manager is the product for you. There are a few limitations to the Freeware Edition:

- Works for 60 Days
 - Can be installed in the database that it monitors only
- Can monitor one database only

After the trial period, all history is still in the database and will remain when upgrading to any other version.

Object Backup

The Object Backup Edition provides the basic functionality of Version Manager working with up to five databases:

- Monitor object changes
- Backup all versions of objects
- Restores the object to a previous state

This version can function in documenting changes to the source code as part of the audit trail.

The actual changes to the code or the code itself cannot be viewed with the Object Backup Edition.

Customer Edition

The Customer Edition provides all the basic functionality of the Object Backup Edition working with up to ten databases. In addition to that it provides:

- Viewing the C/AL code
- Comparing previous version of objects to view the actual code changes
- Export object to a text file
- Build functionality

This edition can only be purchased if the license already contains:

- Application Builder License (works with some limitations)
- Solution Developer License

The Partner Edition provides all the functionality of the Object Backup Edition and Customer Edition in unlimited amount of databases.

The Partner Edition can be installed on multiple servers and locally on development machines without limitations, as long as the partner license is installed.

This edition can only be purchased if the license already contains:

- Partner Developer License

Enterprise Edition

Pricing

Freeware Edition

1 database

Object Backup

5 databases

Purchase

| Purchase price | FREE | |
|-----------------------------------|--------------|--|
| Purchase | | |
| Purchase price | USD 1.150,00 | |
| + 16% Annual upgrade subscription | USD 185,00 | |
| Annual subscription fee | USD 515,00 | |

Customer Edition

Purchase

| Purchase price | USD 2.300,00 | | | |
|-----------------------------------|--------------|--|--|--|
| + 16% Annual upgrade subscription | USD 370,00 | | | |
| Lease | | | | |
| Annual subscription fee | USD 1.035,00 | | | |

Enterprise Edition

Unlimited databases

| Purchase price |
|-----------------------------------|
| + 16% Annual upgrade subscription |

Lease

Purchase

Annual subscription fee USD 2.070,00

USD 2.600,00

USD 740,00

Services

Installation

| Installation assistance, hourly rate | EUR | 145,00 |
|--------------------------------------|-----|--------|
| Education | | |
| Two-hour On-Line Course | USD | 250,00 |

All prices are per license excl. VAT