What's New in Microsoft Dynamics NAV 2017 Limited Beta

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Microsoft Dynamics NAV

Contents

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Microsoft Dynamics NAV is a complete enterprise resource planning (ERP) software solution for mid-sized organizations that is fast to implement, easy to configure, and simple to use. Right from the start, simplicity has guided, and continues to guide, innovations in product design, development, implementation, and usability.

This document details new features and functionality that are available in Microsoft Dynamics NAV 2017 Limited Beta and have been added to the product since Microsoft Dynamics NAV 2016. More information will be made available online when Dynamics NAV 2017 becomes generally available.

What's New for Application Users in Microsoft Dynamics NAV

The following features and functionality for application users have been introduced or simplified since Microsoft Dynamics NAV 2016.

Richer incoming documents

- The list of incoming documents is filtered
  To reduce the amount of entries in the incoming documents list page, we have added a processed field, and now filter to show only unprocessed incoming documents in the list. You can choose to view all incoming documents in the list if desired, using the show **Show All** action. When documents are posted, the processed flag is set to **Yes**, such that incoming documents that have been processed into posted documents are filtered out. You can also manually switch the processing flag.
- OCR support for document lines
  We have added the much requested support for also extracting line details when we send PDF or image files on incoming documents to Lexmark ICS, the 3rd-party provider of OCR services. You can now create, for example, purchase invoices with multi-line details instead of just one line with the total.
- Visually validate and train the OCR Service
  You can easily correct OCR errors before receiving the resulting document and at the same time train the service to avoid the errors going forward. You can use the new Lexmark ICS online experience to visually train and validate the OCR processing of PDF and image files for incoming documents, such as vendor invoices. From each incoming document record, you can now link directly to the online extracted document to validate the OCR result and train the service with your corrections. A new Role Center cue allows you to monitor incoming documents that await your OCR validation.

Inventory Items

- Item attributes
  You can add attributes to your inventory items that make it really easy to find the right product that your customer wants. You can define your own attribute types, such as color, country of manufacture, size, or product dimensions, and add them to your items as a supplement to the built-in item attribute types and values. Then, when you add items to sales and purchase documents, or just organize your items, you can view and filter on the attribute values to limit the list of items to choose from or take action on. For more information, see *How to: Work with Item Attributes* in Help.
- Categorize items
  You can create a hierarchy of item categories and assign item attributes to each item category. When you add items to a category, they will inherit the attributes on the category. This ensures a common set of attributes on related items, speeds up the assignment of attributes to similar items, and allows filtering and navigating related items based on the category.

Smarter sales and purchase documents

- Cancel posted credit memos
  You can now cancel posted sales and purchase credit memos in the same way that you can for posted sales and purchase invoices. Dynamics NAV then unapplies the credit memo from the invoice and creates a new invoice that is applied to the credit memo. This brings you back to where you started before you created the credit memo.
- Package Tracking No. and Shipping Agent Code on sales invoices
  Posted sales invoices now show the package tracking number and the shipping agent code by default.

Account Categories in the Chart of Accounts

We have added account categories and sub categories so you can group general ledger accounts to fit your need for financial reporting. For each G/L account, you can specify the account category so that ledger entries posted to this account are categorized as assets or liabilities, for example., or an income or an expense, and so on.

For each account category, you can choose between different sub-categories. You can also create new sub-categories to fit your need. For example, for the G/L account category *Income*, you can define as many sub-categories as you need so that you can differentiate between income from services and income from product sales.

Payment reconciliation

Dynamics NAV 2017 includes a couple of small improvements to payment reconciliation:

- Display outstanding payments and outstanding transactions in Payment Reconciliation Journal
  The Payment Reconciliation journal now shows totals for outstanding transactions and outstanding payments. From there, you can look up the list of documents that have not been applied or used in the reconciliation process.
- You can choose to include outstanding payments and outstanding transactions information in the Payment Reconciliation report.

Jobs

- Project Manager Role Center
  A new project manager field has been added to the Job Card so users have a clear sense of job ownership. The new My Jobs list on the Project Manager Role Center will now display jobs with the status of Order by default based on the new project manager field. So if Prakash is assigned as the project manager to 4 jobs and those jobs have the On Order status, those 4 jobs will default on the My Jobs list on the Project Manager role center.
  A new cue has been added to the Project Manager Role Center to Create Job Sales Invoice so users have quick access to this functionality. On the same Role Center the Reports tab in the ribbon has been removed and a new drop down list for Job Reports has been added to the Actions ribbon.
- Job cost
  A new fact box has been added to the right side of the Job Card to display the job's cost information. The term Contract is changed to Billable throughout the Jobs module. On the Job Card the Allow Schedule/Billable lines and Apply Usage Link options are marked by default for new jobs. A new report called Job Quote is available so Prakash can send a quote to a customer. This report is a Word Template so it can be modified using Word and emailed to the contact on the job.

Fixed Assets

We have made it easier to set up fixed assets. A standard setup is provided, but you can modify it if anytime you want. You can register fixed asset as cards with complete information, accounting details, and reporting classification. You can also register purchases of fixed assets through special fixed asset G/L journals where you can also dispose of fixed assets. The right accounting entries are created automatically.

Simplified Setup for using Dynamics CRM from inside Dynamics NAV

Dynamics NAV includes opportunity management and basic customer relationship management. But if you need more, you can easily set up a connection with Dynamics CRM so you can benefit from the strong capabilities that Dynamics CRM offers, such as marketing and customer service capabilities.

We've added a new assisted setup guide to the Business Manager home page that guides you through the setup process. Once that's done, you'll have a seamless coupling of Dynamics CRM records with Dynamics NAV records.

Simplified opportunity management and CRM functionality

The Dynamics NAV CRM module has been simplified and improved in a number of ways:

- The existing CRM wizard pages have been replaced with card pages, so that they can also run in the Web client and to improve user experience.
- Worksheet pages have been replaced by list pages so you can also use the pages in browsers.
- The Contact card has been simplified by marking a number of controls as Additional, so that the page default looks simpler.
- The .NET components for mail merge have been replaced with Word reporting. Also, new Word reporting capabilities generate email body content based on the related report and the selected report layout.
- A new Sales & Relationship Manager Role Center (9026) has been created to showcase the relationship management part of CRM better (It does not include Campaigns and To-dos).
- For setup, a new wizard has been created that helps users set up email logging (default public folders, rules, and job queue setup).

Smart notifications give you advice and recommendations

You can get in-context notifications when you create a sales invoice for a customer that has an overdue balance, for example, or when the amount in the sales document exceeds the credit limit specified for the customer. A subtle notification also shows up if you try to sell more items than you have in your inventory. Try to enter a large quantity in a sales invoice line, and see the notification kick in.

We'll show you notifications in different areas of Dynamics NAV, and it's up to you if you react on them or ignore them. We hope you'll find them useful.

Extensions

Microsoft provides the following extensions:

- Envestnet Yodlee Bank Feeds
  The Envestnet Yodlee Bank Feeds service is installed as an extension in Dynamics NAV 2017 and is ready to be enabled. When you have enabled the bank feed service, you must link the involved bank account to the online bank account that the feed will come from. When the bank feed service is enabled, you can set a bank account up to automatically import new bank statements into the Payment Reconciliation Journal window every two hour. Transactions for payments that have already been posted as applied and/or reconciled in the Payment Reconciliation Journal window will not be imported.
- PayPal Payments Standard
  The PayPal Payments Standard service is installed as an extension in Dynamics NAV 2017 and ready to enabled. To enable customer payments through PayPal, you must do the following:
  - Set up PayPal Payments Standard as a payment service in the Payments Services window.
  - Select PayPal Payments Standard in the Payment Service field on the sales document in question.
- QuickBooks Data Migration
  If your business uses QuickBooks today, you can export the relevant information and then open an assisted setup guide to upload the data to Dynamics NAV. You must have exported some or all of your existing customers, vendors, inventory items, and accounts to an Intuit Interchange Format (IIF) file.
- Sales and Inventory Forecast
  The Sales and Inventory Forecast extension gives you insights about potential sales and a clear overview of expected stock-outs. The extension uses Cortana Intelligence to predict future sales based on your sales history to help you avoid inventory shortage. Note that you must set up an Azure Machine Learning instance and add the API URI and API Key to the Sales and Inventory Forecast setup.

Office 365

If your organization uses Office 365, Dynamics NAV 2017 includes an add-in so you can invoice your customers based on entries in your Outlook calendar. From a calendar appointment, you can open the Dynamics NAV add-in and get an overview for the customer associated with the appointment. Then, you can create and send an invoice for the services provided in the meeting - all of this happening right there in the Outlook calendar. You can work directly with attachments to the associated email. You use the actions to send the email attachments directly to the Incoming Documents list and send the documents, such as PDF files, to an Optical Characters Recognition (OCR) service. Here the documents are turned into a machine-readable format so that the invoice information can be added automatically to Dynamics NAV - this reduces the risk of errors and as a result increases productivity. We've also made it easy to update the add-in - you'll get notified that a new version is ready for you in Outlook.

From the Contacts List in Dynamics NAV, you can manually synchronize your Dynamics NAV contacts to Office 365 People. The contacts from Office 365 will sync back to Dynamics NAV as well. There is a filter that can be applied to the synchronization process so users will only need to sync the contacts they use most often. This same filter is used during the automatic background sync as well. This synchronization process also works with Microsoft Outlook on the desktop.

US financial reports

In the US version of Dynamics 2017, we have added four financial reports to the Business Manager and Accountant Role Centers:

- Balance Sheet
- Income Statement
- Cash Flow Statement, and
- Retained Earnings Statement

The reports use G/L account categories and sub-categories to group your financial data.

What's New: Developer and IT Pro Changes for Microsoft Dynamics NAV

The following features and functionality for developers and IT professionals have been introduced since Microsoft Dynamics NAV 2016.

Extensions

Dynamics NAV 2017 includes many new capabilities for Extensions:

- Support for additional object types
  You can include reports, XMLports, and queries in your extension along with new custom report templates.
- Support for default or starting data for new tables
  You can add default or starting data as part of your extension. This data is then included in the package file (.navx) and inserted into the table during the installation of the extension.
- Multilanguage captions
  You can include translated captions and constants for one or more languages by including object language files in the extension package. A translation only extension could be built that translates strings for base objects or objects for another extension.
- Support for .NET Framework add-ins
  You can include and deploy .NET interop types executed on the server, client-side JavaScript or WinForms extensibility control add-ins.
- Support for web services
  Your extension can include a web service and configure it for the tenant the extension is being installed for in a multitenant deployment.
- Restore and backup data in extensions
  With the two new C/AL functions NAVAPP.RESTOREARCHIVEDATA and NAVAPP.DELETEARCHIVEDATA, you can easily restore or delete archived table data during a reinstall or upgrade of the extension. Use the NAVAPP.RESTOREARCHIVEDATA function to simply copy the data back from the archive table when special upgrade logic is not required. Use the NAVAPP.DELETEARCHIVEDATA function in situations where you do not want to restore the archived data for the table.
- Updated Windows PowerShell cmdlet for publishing extensions
  You can publish an extension to a Dynamics NAV Server instance that is configured with an Azure SQL Database using new parameters added to the Publish-NAVApp cmdlet. The new parameters are used to provide the location and credentials for connecting to an existing Azure SQL database you created.
- Installing extensions
  Users with the appropriate permissions in the application can install and uninstall extensions from the Extensions Management page. The page will display all of the extensions that are currently published.

Web Services in multitenant deployments

You can publish per-tenant web services in situations where a web service has not been published for all tenants of the service. You can also package and deploy published web services for base objects or extension objects in an extension. The packaged web services will be published to the tenant for which the extension is being installed.

Notifications in the UI

Dynamics NAV 2017 introduces a programmatic way to send non-intrusive notifications to the UI in the Dynamics NAV Web client. Notifications provide users with information about a current situation, but do not require any immediate action or block users from continuing with their current task. Notifications are only intended for contextual notifications such as the available inventory getting too low, or the credit limit for a customer is exceeded.

In the UI, notifications appear in the Notification bar (similar to validation errors) at the top of the page on which a user is currently working. The user can then choose to dismiss the notification, which clears it. Or if actions are defined on notification, the user can choose one of the actions. There can be multiple notifications. The notifications appear in chronological order from top to bottom. Notifications remain for duration of the page instance or until the user dismisses them or takes action on them.

Notifications that are defined on sub-pages, for example in parts and FactBoxes, appear in the same Notification bar. Validation errors on the page will be shown first.

In the development environment, you create notifications in C/AL by using the **newNotification** and **NotificationScope** data types and the following functions.

- MESSAGE specifies the content of the notification that appears in the UI
- SCOPE specifies the scope in which the notification appears, which can be LocalScope or GlobalScope. A LocalScope notification appears in context of what the user is currently doing, while GlobalScope notifications are not directly related to the current task. Note: GlobalScope is currently not supported.
- SEND sends the notification to be displayed by the client.
- ADDACTION adds an action on the notification. Actions enable you to create interactive notifications that provide users with different actions that they can take to address the notification, like opening an associated page for modifying data. A notification action calls a function in a codeunit that you define, passing the notification object in the call. You then add business logic to the function for handling the action.
- SETDATA and GETDATA set and retrieve a data property value for the notification, which is typically needed when actions are invoked.

The following example illustrates the simplified code for local scope notification that has an action:

```
VAR

   CreditBalanceNotification@1170000000 :Notification;



   PROCEDURECreditBalanceCheck@1170000023(Customer@1170000000 : Record 18);

   BEGIN



   //Create the notification

   CreditBalanceNotification.MESSAGE('Thecustomer''s current balance exceeds their credit
limit');

   CreditBalanceNotification.SCOPE :=NOTIFICATIONSCOPE::LocalScope;



   //Add a data property for the customernumber

   CreditBalanceNotification.SETDATA('CustNumber',Customer."No.");
```

```
       //Add an action that calls the ActionHandler codeunit, which you define in the next
step.

       CreditBalanceNotification.ADDACTION('Gohandle this',
CODEUNIT::NavExtensionInstallationMgmt, 'OpenCustomer');



       //Send the notification to the client.

       CreditBalanceNotification.SEND;

   END;
```

In the "Action Handler" codeunit, you would add code to handle the action in a global function, called OpenCustomer, which has a Notification data type parameter. You could the use the GETDATA function to get the value of the data sent with the notification:

```
   PROCEDUREOpenCustomer@1170000024(theNotification@1170000000 : Notification);

   VAR

       CustNo@1170000001 : Code[20];

   BEGIN

       // Do the code to handle the action.Optionally retrieve data carried by the
notification.

       CustNo :=theNotification.GETDATA('CustNumber');

        // …

   END;
```

Setup data in the US version

The US version of Dynamics NAV 2017 includes two RapidStart packages that will enable a fast implementation for a new company. These data packages come with a new Windows PowerShell script to upload to server - and can be enabled for new companies. Create a new company in the Companies page, and choose the **Enable assisted setup** field. Then, use the **Import-NAVConfigurationPackageFile** cmdlet to import the RapidStart packages. When you then open the new company, the packages are applied, and you will be taken through an assisted setup experience.

Application area tagging

The Application Areas system offers developers, administrators, and users the ability to define differentiated user experiences according to application scope. By selecting a set of application areas, users only see UI elements that are specific to the application features that they need to perform their tasks.

Note: Companies do not need to use the Application Areas system. If they ignore the system, users effectively see the standard UI of Dynamics NAV. Only when companies want to create differentiated user experiences, the Application Areas system should be an option to consider.

For more information, see Design Insights: Application Areas and user Experiences, which will be part of the readiness library for Dynamics NAV 2017.

Time series library

With this release, Dynamics NAV enters the world of machine learning and the first step of this journey is to bring the Time Series API to Dynamics NAV developers. One of the most popular topics for machine learning is forecasting based on historical data. Many algorithms that can do this, but you do not have to know them, because we have wrapped them for you. We chose five of these algorithms, wrapped them in one Azure ML experiment, added logic that compares different results and returns the best one accompanied by an indicator of the prediction's quality. There is a generic API on top of this that allows Dynamics NAV developers create their own functionality that helps customers find the business-critical information that may be hidden in their database. You can perform time-series analysis in the familiar development environment.

The time series library is used by the Sales and Inventory Forecast extension.

For more information, see How to Use the Time Series API, which will be part of the readiness library for Dynamics NAV 2017.

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