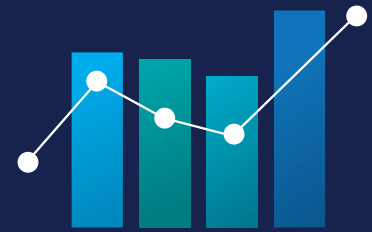


Demand Forecasting for Dynamics 365 for Operations



BENEFITS:

- Improved customer service arising from better visibility of customer demand
- Lower stock levels due to better planning to meet customer demand
- Better use of resources through more accurate planning & scheduling
- Increased forecast accuracy through tracking of forecasts against actual demand
- Visibility of sales promotions and their effect on sales forecasts
- Lower forecasting costs through automatic calculation of forecasts for items with stable demand patterns

Demand Forecasting 365 for Operations

Demand Forecasting for Microsoft Dynamics 365 for Operations from Farsight Solutions is a fully integrated D365 module that calculates forecasts of future demand for items based on sales order or invoice demand, and optionally production and projects demand, providing a powerful tool that enables companies to intelligently plan ahead.

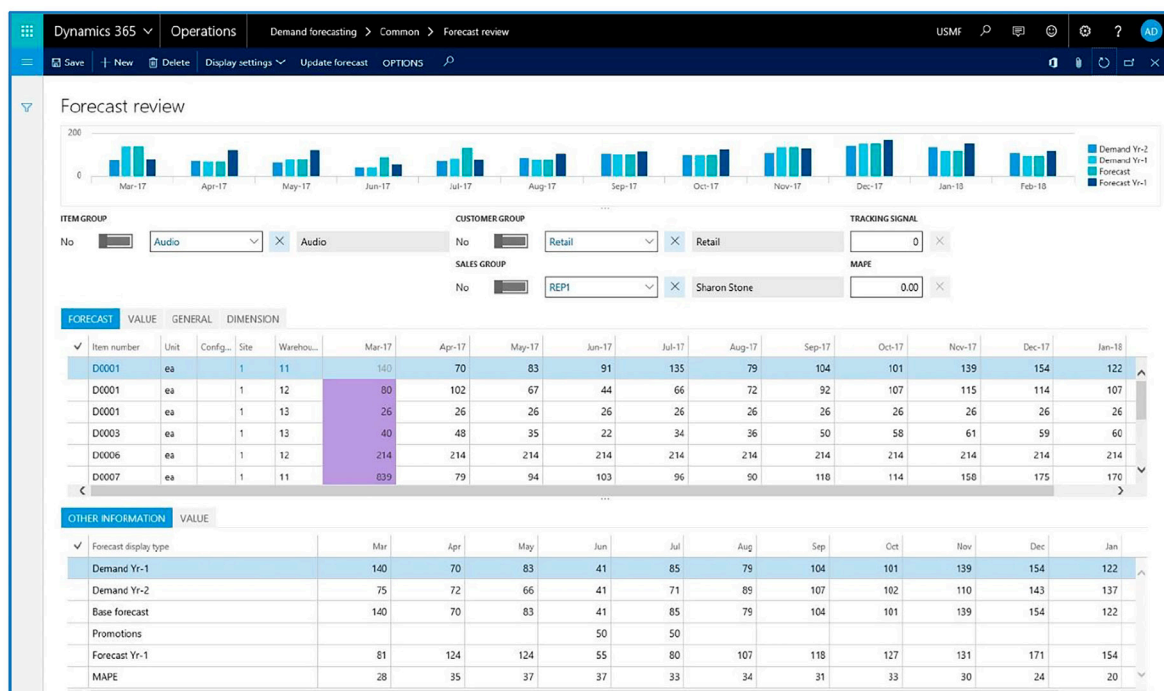
Turn raw demand into intelligent demand forecasts

Demand Forecasting for Dynamics 365 lets you forecast demand weekly, monthly, or by any user-definable periods such as 4 & 5-week months to suit your industry.

You can group customers with similar demand characteristics into user-defined groups so that forecasts are calculated based on their accumulated demand, increasing the reliability of forecasts.

You can also group items in the same way, in which case the final forecasts for individual items can be calculated from item group forecasts according to the proportion of each item's forecasts in the group forecast.

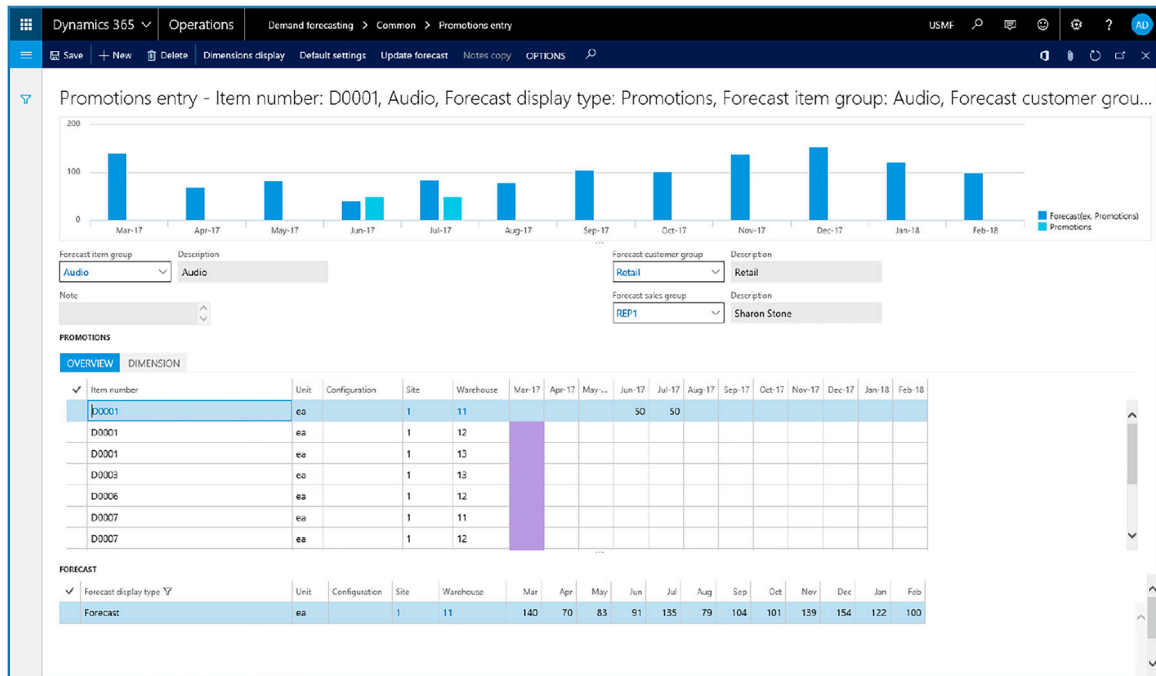
Forecasts can be calculated by item and any combination of item configuration, colour, size, style, site & warehouse, providing a highly flexible tool for managing different types of items.



View the effect of sales promotions on forecasts

You can estimate future demand attributable to a sales promotion and view the promotional forecasts separately so that you always have complete visibility of your promotional campaigns.

You can also extract the effect of sales promotions from historical demand to produce a better demand pattern for use in calculating future forecasts.



Budgeting

You can use any forecast as the basis for generating a sales budget for your company. The budgeting process enables you to allow for increases in unit prices and costs in the future to enable you to easily view the effect of these on your margins.

The screenshot shows the 'Budget entry' interface in Dynamics 365. It features dropdown menus for 'Forecast item group' (Audio), 'Forecast customer group' (Retail), and 'Forecast sales group' (REP1). The main section is a table titled 'BUDGETING' with tabs for 'OVERVIEW' and 'DIMENSION'. The 'OVERVIEW' tab shows a table with columns for Item number, Budget display type, Unit, Site, Warehouse, and months from Jan-18 to Dec-18. The 'DIMENSION' tab shows a table with columns for Forecast display type, Budget display type, Unit, Site, Warehouse, and months from Jan to Dec. The 'Budgeting' table shows values for 'Budgeting' (ea) and 'Promotional' (ea) across the months.

| Item number | Budget display type | Unit | Site | Warehouse | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 | Oct-18 | Nov-18 | Dec-18 |
|-------------|---------------------|------|------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| D0001 | Sales quantity | ea | 1 | 11 | 127.00 | 105.00 | 140.00 | 70.00 | 83.00 | 41.00 | 85.00 | 75.00 | 104.00 | 101.00 | 139.00 | 154.00 |
| D0001 | Sales price | ea | 1 | 11 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 |
| D0001 | Cost price | ea | 1 | 11 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 |
| D0001 | Sales quantity | ea | 1 | 12 | 107.00 | 51.00 | 60.00 | 102.00 | 67.00 | 44.00 | 66.00 | 72.00 | 92.00 | 107.00 | 115.00 | 114.00 |
| D0001 | Sales price | ea | 1 | 12 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 | 525.00 |
| D0001 | Cost price | ea | 1 | 12 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 |
| D0001 | Sales quantity | ea | 1 | 13 | 26.00 | 25.00 | 26.00 | 26.00 | 26.00 | 25.00 | 26.00 | 26.00 | 25.00 | 26.00 | 26.00 | 26.00 |
| D0001 | Sales price | ea | 1 | 13 | 480.00 | 480.00 | 480.00 | 480.00 | 480.00 | 480.00 | 480.00 | 480.00 | 480.00 | 480.00 | 480.00 | 480.00 |
| D0001 | Cost price | ea | 1 | 13 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 | 302.71 |
| D0003 | Sales quantity | ea | 1 | 13 | 60.00 | 22.00 | 40.00 | 40.00 | 40.00 | 40.00 | 40.00 | 40.00 | 40.00 | 40.00 | 40.00 | 40.00 |
| D0003 | Sales price | ea | 1 | 13 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |

| Forecast display type | Budget display type | Unit | Site | Warehouse | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----------------------|---------------------|------|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Budgeting | Amount | ea | 1 | 11 | 66,675.00 | 55,125.00 | 73,500.00 | 36,750.00 | 43,575.00 | 21,525.00 | 44,625.00 | 41,475.00 | 54,600.00 | 53,025.00 | 72,975.00 | 80,850.00 |
| Budgeting | Gross margin | ea | 1 | 11 | 28,231.44 | 23,340.95 | 31,121.27 | 15,560.64 | 18,450.47 | 9,114.09 | 18,895.06 | 17,561.29 | 23,118.56 | 22,451.77 | 30,896.98 | 34,233.40 |
| Budgeting | Gross margin % | ea | 1 | 11 | 42.34 | 42.34 | 42.34 | 42.34 | 42.34 | 42.34 | 42.34 | 42.34 | 42.34 | 42.34 | 42.34 | 42.34 |

Tightly manage critical customers & items

You can manage your critical customers and items by exception, manually altering demand history and forecasts as you wish without ever losing the original demand or calculated forecasts. You can also attach notes to manual changes so that you have a record of the reason why figures have been changed.

Forecasts can be reviewed online via standard Dynamics 365 screens or offline via Excel spreadsheets to ensure mobile sales personnel can be involved in the forecasting process. This flexibility means that changes can be made by the personnel responsible for individual items and customer groups to provide you with a collaborative forecasting tool that combines the power of the forecasting module with the practical knowledge of your sales & marketing personnel.

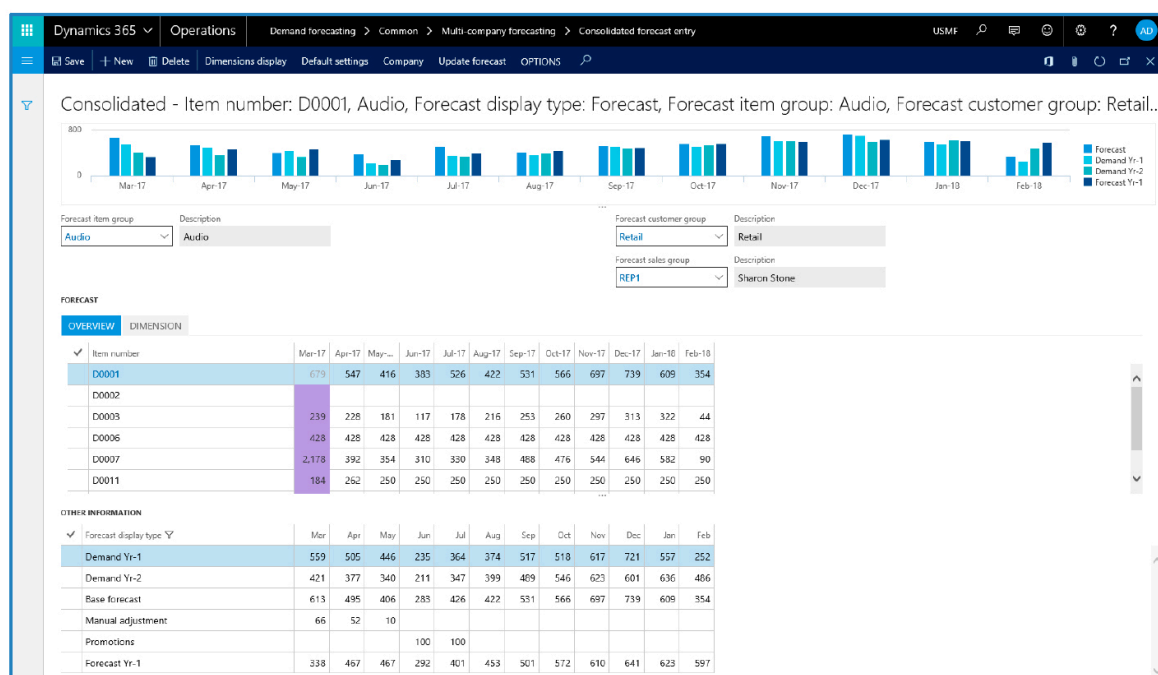
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R |
|----|---------------|-----------------|-------------|-----------------|-----|------|-------|---------|-------|------|-------|--------------------|--------|--------|--------|--------|--------|--------|
| | Forecast item | Forecast custom | Item number | Product name | Sal | Site | Wareh | Config | Color | Size | Style | Data type | Mar-17 | Apr-17 | May-17 | Jun-17 | Jul-17 | Aug-17 |
| 1 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 11 | | | | | Original Forecast | 140 | 79 | 77 | 104 | 131 | |
| 2 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 11 | | | | | Demand History - 1 | 240 | 70 | 83 | 41 | 85 | |
| 3 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 11 | | | | | Demand History - 2 | 75 | 72 | 66 | 41 | 71 | |
| 4 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 11 | | | | | New Forecast | 140 | 100 | 77 | 104 | 131 | |
| 5 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 11 | | | | | New Adjustment | 0 | 21 | 0 | 0 | 0 | |
| 6 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 12 | | | | | Original Forecast | 80 | 102 | 67 | 44 | 66 | |
| 7 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 12 | | | | | Demand History - 1 | 79 | 133 | 73 | 46 | 61 | |
| 8 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 12 | | | | | Demand History - 2 | 80 | 85 | 66 | 39 | 73 | |
| 9 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 12 | | | | | New Forecast | 80 | 102 | 67 | 44 | 66 | |
| 10 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 12 | | | | | New Adjustment | 0 | 0 | 0 | 0 | 0 | |
| 11 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 13 | | | | | Original Forecast | 26 | 26 | 26 | 26 | 26 | |
| 12 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 13 | | | | | Demand History - 1 | 0 | 0 | 40 | 0 | 0 | |
| 13 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 13 | | | | | Demand History - 2 | 0 | 0 | 0 | 0 | 0 | |
| 14 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 13 | | | | | New Forecast | 26 | 26 | 26 | 26 | 26 | |
| 15 | Audio | Retail | D0001 | MidRangeSpeaker | ea | 1 | 13 | | | | | New Adjustment | 0 | 0 | 0 | 0 | 0 | |
| 16 | Audio | Wholesale | D0002 | Cabinet | ea | 1 | 11 | | | | | Original Forecast | 7 | 7 | 7 | 7 | 7 | |
| 17 | Audio | Wholesale | D0002 | Cabinet | ea | 1 | 11 | | | | | Demand History - 1 | 0 | 0 | 0 | 0 | 0 | |
| 18 | Audio | Wholesale | D0002 | Cabinet | ea | 1 | 11 | | | | | Demand History - 2 | 0 | 0 | 0 | 0 | 0 | |
| 19 | Audio | Wholesale | D0002 | Cabinet | ea | 1 | 11 | | | | | New Forecast | 7 | 7 | 7 | 7 | 7 | |
| 20 | Audio | Wholesale | D0002 | Cabinet | ea | 1 | 11 | | | | | New Adjustment | 0 | 0 | 0 | 0 | 0 | |
| 21 | Audio | Retail | D0003 | Standardspeaker | ea | 1 | 13 | | | | | Original Forecast | 40 | 48 | 35 | 22 | 34 | |
| 22 | Audio | Retail | D0003 | Standardspeaker | ea | 1 | 13 | | | | | Demand History - 1 | 40 | 52 | 37 | 23 | 31 | |
| 23 | Audio | Retail | D0003 | Standardspeaker | ea | 1 | 13 | | | | | Demand History - 2 | 40 | 43 | 33 | 20 | 37 | |
| 24 | Audio | Retail | D0003 | Standardspeaker | ea | 1 | 13 | | | | | New Forecast | 40 | 48 | 35 | 22 | 34 | |
| 25 | Audio | Retail | D0003 | Standardspeaker | ea | 1 | 13 | | | | | New Adjustment | 0 | 0 | 0 | 0 | 0 | |
| 26 | Audio | Retail | D0004 | Highendspeaker | ea | 1 | 11 | Default | | | | Original Forecast | 150 | 150 | 150 | 150 | 150 | |
| 27 | Config | Retail | D0004 | Highendspeaker | ea | 1 | 11 | Default | | | | Demand History - 1 | 0 | 0 | 0 | 0 | 0 | |
| 28 | Config | Retail | D0004 | Highendspeaker | ea | 1 | 11 | Default | | | | Demand History - 2 | 0 | 0 | 0 | 0 | 0 | |
| 29 | Config | Retail | D0004 | Highendspeaker | ea | 1 | 11 | Default | | | | New Forecast | 150 | 150 | 150 | 150 | 150 | |
| 30 | Config | Retail | D0004 | Highendspeaker | ea | 1 | 11 | Default | | | | New Adjustment | 0 | 0 | 0 | 0 | 0 | |

Multi-company forecasting

Multi-company forecasting enables forecasts from multiple companies to be consolidated and reviewed at an Enterprise level. Two views are provided:

- Forecasts for each company are displayed by company on a single form and can be reviewed without the need to change companies
- The forecasts for all companies are consolidated into a single forecast for review. Any changes made are automatically distributed across the individual company forecasts

These views can be accessed from within any company.



FEATURES

| | |
|---|---|
| Fully integrated | <ul style="list-style-type: none"> Operates as a standard D365 module accessible from the D365 menu All demand history and forecasts are held in D365 tables for ease of management & reporting |
| Forecast calculation | <ul style="list-style-type: none"> Customers can be grouped in 2 ways for consolidating demand for forecasting purposes. Items can be also be grouped. These groupings enable forecasts to be calculated and adjusted at different levels of detail as required Customer forecasting groups can be automatically mapped to any 2 of 12 standard customer fields and/or derived from these customer fields Forecasts are generated in either weekly, monthly or user-definable periods Forecasts can be calculated automatically from either sales order or invoice demand history. Demand history may also include production and/or projects demand for selected items Forecasts can be calculated and reviewed by any combination of site, warehouse and the 4 standard product dimensions as required |
| Forecasting formulas | <ul style="list-style-type: none"> 5 forecasting formula options are provided, 4 basic formulae and an 'Expert selection' formula option The 'Expert selection' option uses the powerful Forecast Pro forecasting engine to automatically select the best forecasting formula for an individual demand pattern from a range of powerful industry-standard forecasting formulas The forecasting formula used for any item can be specified by group of items or by individual item, with a system default for those items where no formula is specified |
| Graphical comparison of forecast against history | <ul style="list-style-type: none"> Forecasts are graphically displayed alongside up to five years of demand history for comparison purposes The display of forecasts can be filtered using a Mean Absolute Percentage Error (MAPE) measurement to enable any inaccurate forecasts to be easily viewed |
| Manual adjustments to forecasts | <ul style="list-style-type: none"> Demand forecasts may be manually adjusted at any level in the forecasting hierarchy. All adjustments are automatically allocated down to the most detailed level and are immediately visible at all levels Demand forecasts may also be adjusted to allow for promotions Manual adjustments and promotional forecasts are held separately so that the original forecast figures are always retained |
| Collaborative forecasting | <ul style="list-style-type: none"> Where individual people manage groups of customers, an option is provided to manage forecasts by person Forecasts may be reviewed by the people responsible for these groups of customers online using standard Dynamics 365 screens, or offline via Excel spreadsheets |
| Multi-company forecasting | <ul style="list-style-type: none"> The ability to review and change consolidated forecasts across multiple companies Consolidated forecasts for an item may be changed at the Enterprise level and the changes automatically allocated across the item's forecasts within each company |
| Item supersessions | <ul style="list-style-type: none"> Supersession rules can be specified to enable forecasts for a new item to be based on demand history from one or more existing items. The percentage of demand history used can vary by item and period |
| Abnormal demand | <ul style="list-style-type: none"> Demand history may be manually adjusted to remove obvious 'spikes' or outliers Adjustments are held separately so that the original history is always retained Notes may be recorded against adjustments to explain why a figure has been altered |
| Reporting | <ul style="list-style-type: none"> A Forecast Accuracy report is provided for flexible reporting, enabling forecasts to be compared with actual demand over any period of time |

For more information about Demand Forecasting for Dynamics 365 for Operations, email: dynamics@farsight.co.nz.
For more information about Microsoft Dynamics 365, visit: www.microsoft.com

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