



Simple Forecasting by Veloc

Simple Forecasting – Simple Instruction Manual

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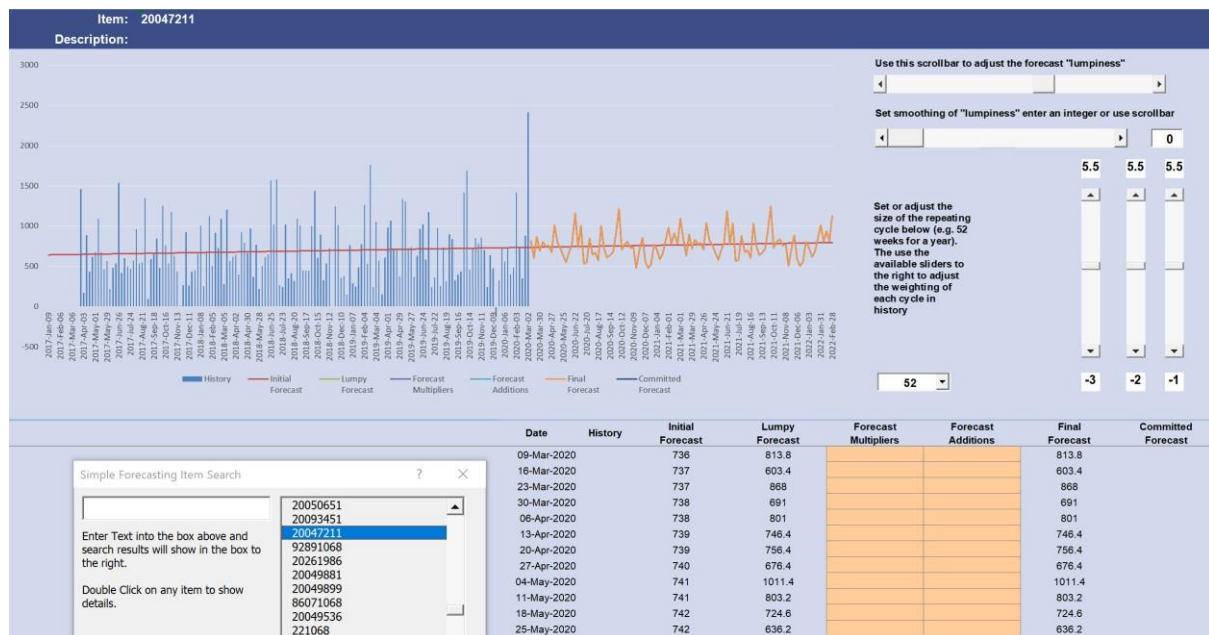
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Introduction – What is Simple Forecasting?

Simple Forecasting is a straightforward, easy to use Demand Planning application.

The core of the application is an algorithm which will create a simple projection from historic sales and then allows the user to adjust this initial forecast by:

- Incorporating seasonality and other repeating trends
- Selecting and eliminating erroneous historic data
- Adding promotional increases
- Adding other demand impacts (negative and positive)



The forecast can then be exported for import into a planning system of choice (It is specifically formulated for use in the [Veloc Planning System](#)).

The application can report forecasts by Item and by a range of groupings – Customer, Geographic Location, Warehouse, Product Type and more. These groupings are set by the user.

Instructions

Simple Forecasting is just that – simple. Here are the 6 steps to get going.

Install

simply unzip the downloaded zip file into a folder of your choice.

Start the application

By running simpleforecasting.xlam or its shortcut. This will start the programme and open an excel session for the user interface. The excel ribbon will have a new tab called Simple Forecasting which contains all the menus you need.



Starting a new Dataset.

Set the Global Parameters.



Global Parameters

Number of forecast Buckets

104

Bucket Unit Type

Week

Bucket Size (xUnits)

1

Number of History Buckets to Show

156

Global cycle for seasonality

52

Number of decimal places in forecast

0

1st forecast bucket date (yyyy-mm-dd)

yyyy

mmm

dd

2021

Jan

00

Archive data when carrying out Horizon Roll?

Yes

No

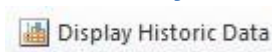
Save and Close

Close without Saving

Save and Continue

1. Number of forecast buckets 1 to 165
2. Bucket Unit type (Days, weeks etc.)
3. Bucket Size – i.e. the number of the above unit per bucket.
4. Number of History buckets 1-260 (more buckets of history give more accuracy) N.B. For any item buckets with zero in history before 1st bucket
5. Number of decimal places in forecast
6. First Forecast Bucket Start Date – yyyy-mmm-dd
7. Archive data when carrying out horizon roll. – When you move from one week to next you have the option of saving in archive both forecast and actuals for the week removed from the live data. In pro version this will be used to calculate safety stocks.

Add History by clicking Display Historic Data. Simple spreadsheet input –



Save Changes and Close	Close Without Saving					
Items	2011-03-21	2011-03-28	2011-04-04	2011-04-11	2011-04-18	2011-04-25

1. Items in column 1 and sales history for each item in other columns.
2. Dates are set from global Parameters above.

Alternatively - Import History

Use any transformation routines to ensure your history data is in a CSV file with the field format:-

Item, Date, Quantity

- Item must be text
- Date must be in the format “dd-mmm-yyyy” (N.B. looking at a CSV file in excel may not give you a true view of the date format as it will be translated to your local settings – always check date formats by viewing CSV files in Notepad)
- Dates must also match the bucket dates set up when setting global parameters – e.g. Week ending Saturday, Sunday etc.
- Quantity must be numeric

Set Item Parameters.

Display Item Parameters

Save Changes and Close	Close Without Saving									
Items	Description	0-10 0=off	Number of buckets to use as rolling average	Number of buckets to cycle Must be less than	Weighting cycle-5	Weighting cycle-4	Weighting cycle-3	Weighting cycle-2	Weighting cycle-1	
20066286		1	1	52	0		0.32	0.32	0.36	
20085423		1	1	52		0	0.32	0.32	0.36	
20049616		1	1	52	0		0.32	0.32	0.36	
20054998		1	1	52	0	0	0.32	0.32	0.36	
20280791		1	1	52	0	0	0.32	0.32	0.36	
20294257		1	1	52	0	0	0.32	0.32	0.36	
20066928		1	1	52	0	0	0.32	0.32	0.36	
20087955		1	1	52	0	0	0.32	0.32	0.36	
20255309		1	1	52	0	0	0.32	0.32	0.36	
20060304		1	1	52	0	0	0.32	0.32	0.36	

- Items are populated once history is added and default parameters are populated but can be altered by the user.
- Description – add a description for the item
- Add cyclic variation – Simple Forecasting produces as start point a simple linear regression straight line forecast. The user can add in cyclic fluctuations by selecting the weight of such adjustments here 0= none (straight line forecast), 10 = maximum cyclic fluctuation.

- Number of buckets to use as rolling average. Default value is 1 – no averaging so each bucket is treated separately. Averaging over 2 or more buckets will smooth the cyclic fluctuation.
- Number of buckets to cycle – i.e., 52 will mean the system looks for annual repeating cycles and will use the previous 3 years weighted as below.
- Cycle weighting. Start by setting weight as fraction for 3 cycles ago then 2 cycles ago – the most recent cycle is then automatically calculated as the remaining fraction to give a total of 1. Default values are 0.33, 0.33 and then 0.34 for most recent cycle. (i.e., equal weighting for all 3 cycles)
- Select save or close without saving.

Run the Forecast.

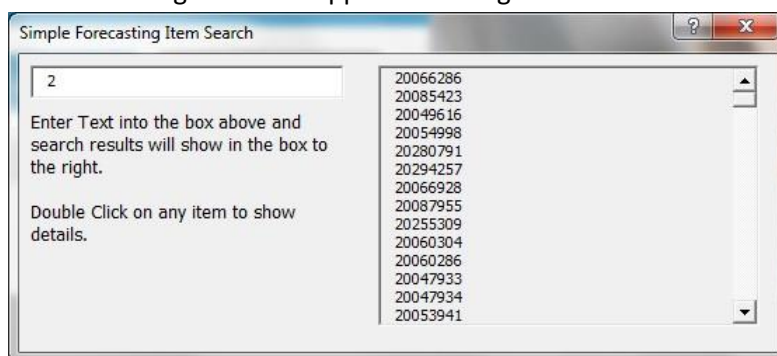


That's it you're ready to go – select Forecast All Items from the menu. It will take a few minutes to complete.

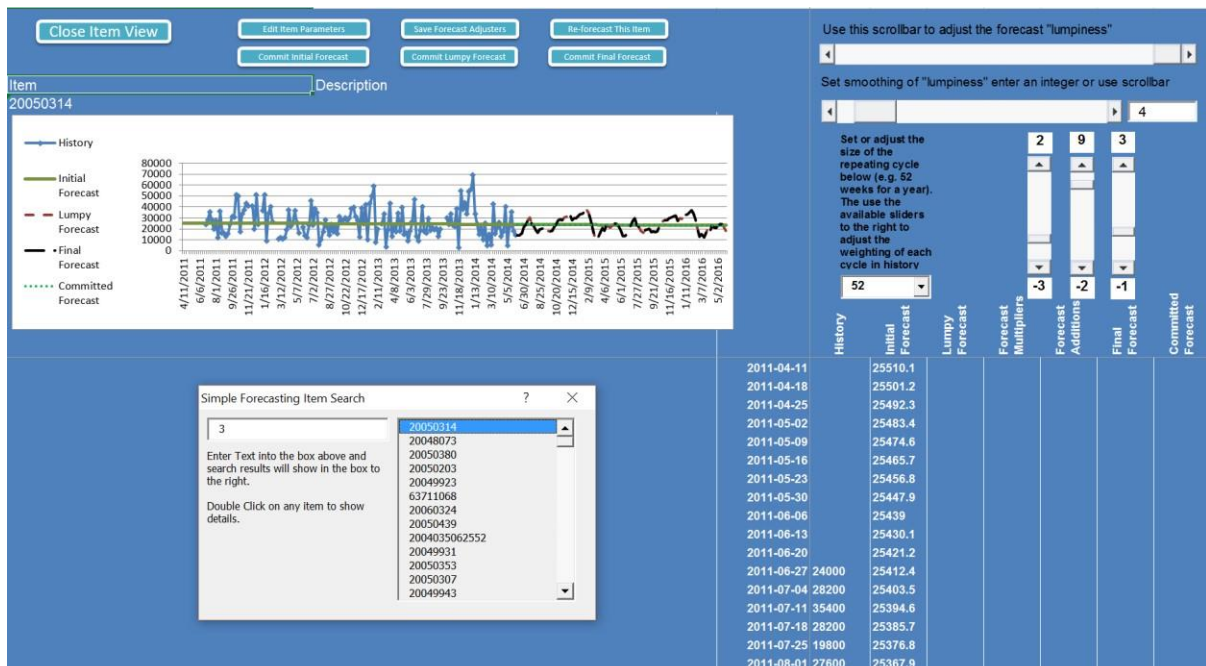
Review and Adjust the Forecasts.

By Item.

Open the item search box and start to enter the item code for any item in the left-hand search box. A list of matching items will appear in the right-hand box.



Double click on any item in the right-hand box – this will open the detailed item results page with graph and tables of history and forecast.



The Chart shows history and a set of forecasts – initial forecast (linear regression), the “lumpy” forecast – including results of Cycle Weighting as per item parameters, the final forecast (which includes the results of forecast adjusters – see below) and the committed forecast (by default the final forecast but can be changed – see below). A separate larger version of the chart can be viewed by selecting the Chart Tab.

You can double click on any item in the search box at any time to change to a new item.

Use the scrollbars and drop-down boxes to the upper right to adjust the forecasting parameters to get the optimum base forecast.

The table shows history and a set of forecasts – initial forecast (linear regression), the “lumpy” forecast – including results of Cycle Weighting as per item parameters, the final forecast (which includes the results of forecast adjusters – see below). You will need to scroll down past all of the history to reach the rows containing forecast information.

Removing incorrect history

Historic values can be edited or removed and this will make permanent changes to history. The item will then automatically reforecast and the new forecast will be displayed.

Forecast Adjusters

For any point in the forecast the user can apply either a multiplier to be applied to create the final forecast or a number to be added to create the final forecast – or both types of adjustment can be made. The final forecast will update automatically but to commit the changes the user needs to both Save the Adjusters using the button and Commit the final forecast. Any saved adjusters will be reapplied next time this item or all items are reforecast.

N.B. A trick to achieve a flat forecast of any value :-

Type into the cell of the first additive of the forecast “=X – F111” where X is the value of the forecast you want to see. The cell contents will propagate through the additives and the resulting “Final Adjusted Forecast” will be flat at the value you input. The formula will not be saved. Click to “Commit the Final Adjusted Forecast and optionally click to Save adjusters.

Edit Item Parameters

By clicking the Edit Item Parameters button the user can view and edit the item parameters for this item. If changes are made then the item will need to be reforecast and the appropriate forecast then committed.

Close Item View

To close the detailed Item View screen click the Close Item View button.
to close the search box just click the right hand corner “X” on the search box.

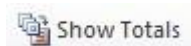
Display Forecast Data



Clicking this option on the menu will show the currently committed forecasts for all items.

Forecasts can be manually changed or entered and the results saved using the Save Changes and Close button.

Show Total Forecast



Selecting this option on the menu will display the forecast at a total level. (Coming soon – the ability to show aggregated forecasts at multiple levels)

Group Functionality

It is possible to forecast at lower levels than overall Item – e.g., Customer, Geographic Location, Product Type etc. Groups are determined by the user and by incorporating item, group level data in history.

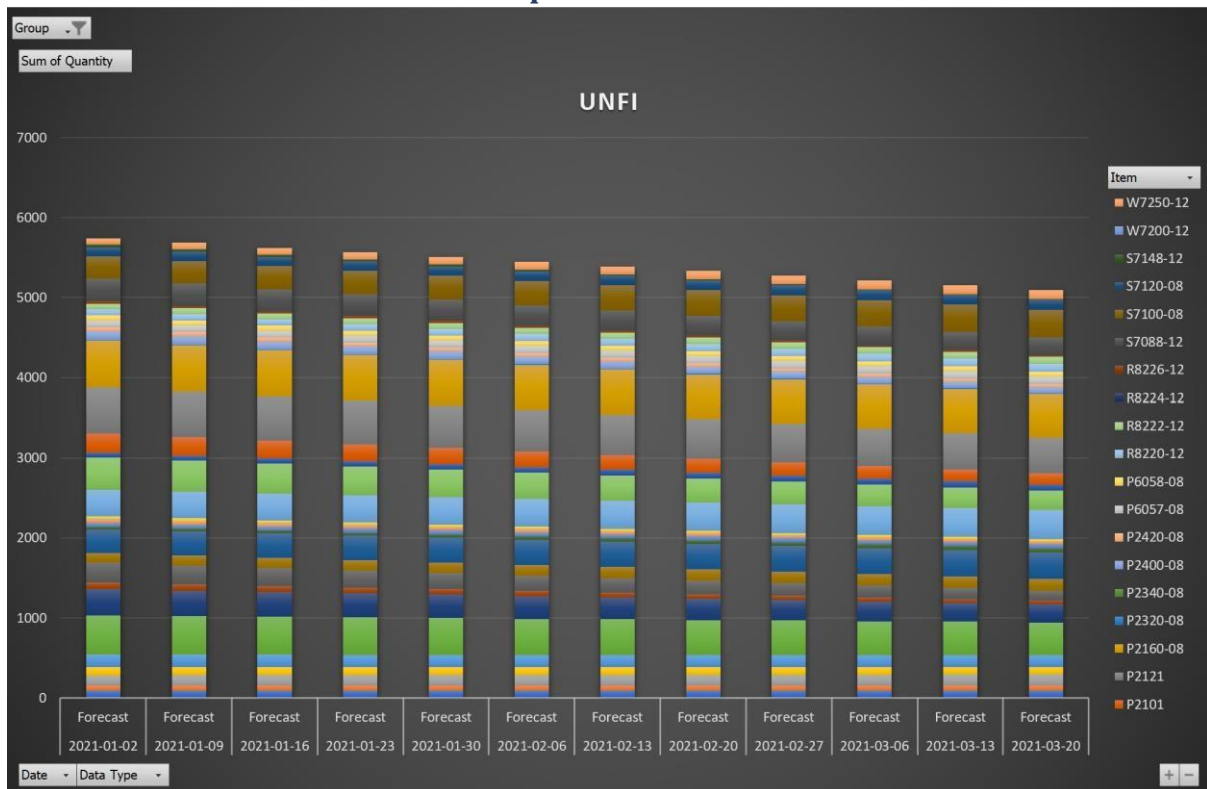
E.g., If we have an item x001 with 3 possible geographic locations and 5 possible customer this information can be encoded into the history by using #s (hashtags) in the history label.

So x001#Leeds#Asda would be the history for this combination.

The system will then forecast at these levels and forecasts can be aggregated not only to the overall item level but at the level of Customer. Geography etc.

Using the Simple Forecasting Pivot Report it is possible. in a single report, to view forecasts and forecast adjusters at all group levels. Information can be viewed both in tabular form and in graphical form. It is possible with a few clicks to show data in many different ways and filtered or grouped by any of the available groups, data types etc.

Pivot Chart View – Note filters on all parameters

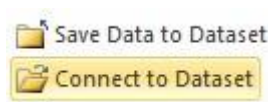


Pivot Table – again note multiple filters.

Group	UNFI								
Sum of Quantity	Column Labels								
Row Labels	B6005	B6007	S7100-08	S7120-08	S7148-12	W7200-12	W7250-12	Grand Total	*
2021-01-02									
Forecast	90	62	276	114	38	0	74	5740	
2021-01-09									
Forecast	90	62	282	115	35	0	78	5684	
2021-01-16									
Forecast	90	62	289	116	32	0	82	5621	
2021-01-23									
Forecast	90	61	296	117	29	0	86	5566	
2021-01-30									
Forecast	90	61	302	118	26	0	90	5506	
2021-02-06									
Forecast	90	60	309	119	23	0	93	5445	
2021-02-13									
Forecast	90	60	315	120	21	0	97	5389	
2021-02-20									
Forecast	90	60	322	121	18	0	101	5331	
2021-02-27									
Forecast	91	59	329	122	15	0	105	5271	
2021-03-06									
Forecast	91	59	335	123	12	0	109	5211	
2021-03-13									
Forecast	91	59	342	124	9	0	113	5157	
2021-03-20									
Forecast	91	58	348	125	6	0	117	5095	
Grand Total *	1084	723	3745	1434	264	0	1145	65016	

Export the forecasts

To export the forecasts simply click to display the forecasts. The user can then copy and paste the results into a spreadsheet of their choice.



Managing datasets

By clicking Save Data to a Dataset you will save the data you have entered/ created/ forecast to a file with the suffix .vfn. This can be located anywhere on the local disc, on removable media or on a server. Until this is done the users data will not be available on the next session.

to connect to a previously saved dataset click Connect to Dataset and navigate to the .vfn file of your choice. Select the file and click “Open”.

Horizon Roll

Prepare for the next forecasting cycle by clicking Horizon Roll from the menus.

The first forecast value will be dropped and replaced by a new element of history. You will be prompted to point to a history file with exactly the same structure as the main history import.

You should be prompted to reforecast all items and should do so – N.B. this will not change committed forecasts but will provide a new initial forecast to which adjusters will be added as saved and a new final adjusted forecast displayed. You can now compare vs the Committed Forecast and decide whether any further adjustments are required.

Found a bug or want to make a suggestion

Email contact@simpleforecasting.co.uk