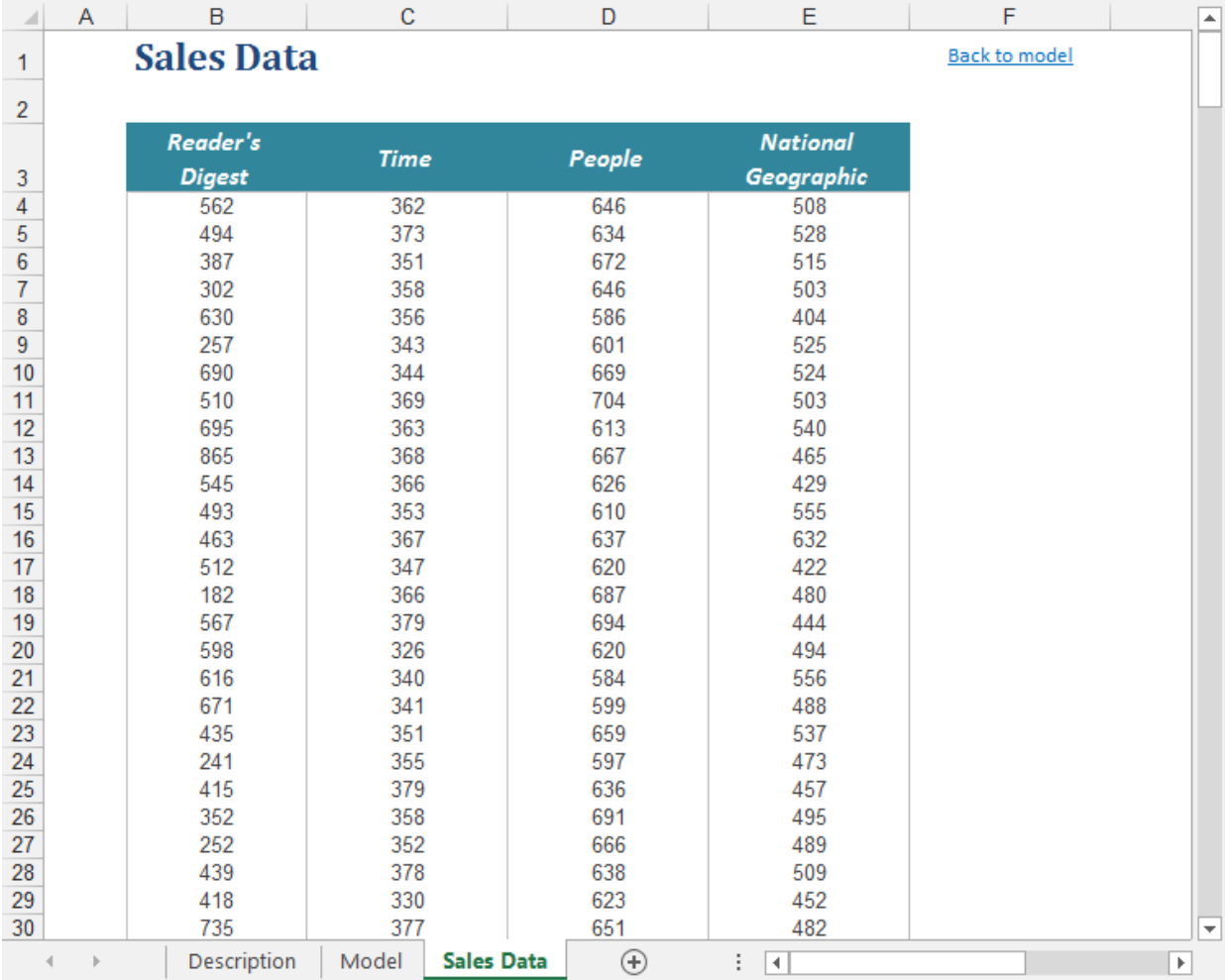


One-Minute Spotlight

BATCH FIT TOOL

The Batch Fit Tool automatically fits continuous probability distributions to multiple data series. Batch Fit is intended to save you time when you need to create several assumptions from historical data.

In the model Magazine Sales.xls (available in the Crystal Ball examples), you want to forecast the gross profit resulting from newsstand sales of four popular magazines. On the Sales Data worksheet, you have a series of 360 data points (daily sales data) for each magazine.



	A	B	C	D	E	F
1	Sales Data					Back to model
2						
3		<i>Reader's Digest</i>	<i>Time</i>	<i>People</i>	<i>National Geographic</i>	
4		562	362	646	508	
5		494	373	634	528	
6		387	351	672	515	
7		302	358	646	503	
8		630	356	586	404	
9		257	343	601	525	
10		690	344	669	524	
11		510	369	704	503	
12		695	363	613	540	
13		865	368	667	465	
14		545	366	626	429	
15		493	353	610	555	
16		463	367	637	632	
17		512	347	620	422	
18		182	366	687	480	
19		567	379	694	444	
20		598	326	620	494	
21		616	340	584	556	
22		671	341	599	488	
23		435	351	659	537	
24		241	355	597	473	
25		415	379	636	457	
26		352	358	691	495	
27		252	352	666	489	
28		439	378	638	509	
29		418	330	623	452	
30		735	377	651	482	

ORACLE

Batch Fit, continued

OPENING THE TOOL AND SELECTING THE INPUTS

You open the Batch Fit tool through the Run -> Tools menu.

When the tool opens, you will see the Welcome screen. Click on Next to view the Input Tool step. Here you define the location of your data table and select the Fitness Criteria. Your data series must be contiguous (in adjacent rows or columns) in either rows or columns. Click on Next to move to Fitting Options.

Batch Fit

Welcome

Input Data

Fitting Options

Output Options

Reports

Select location of data series for fitting

Location of data series: =B\$3:\$E\$363

Orientation

Data in rows

Data in columns

Headers

Top row has headers

Left column has labels

4 data series
360 rows of data

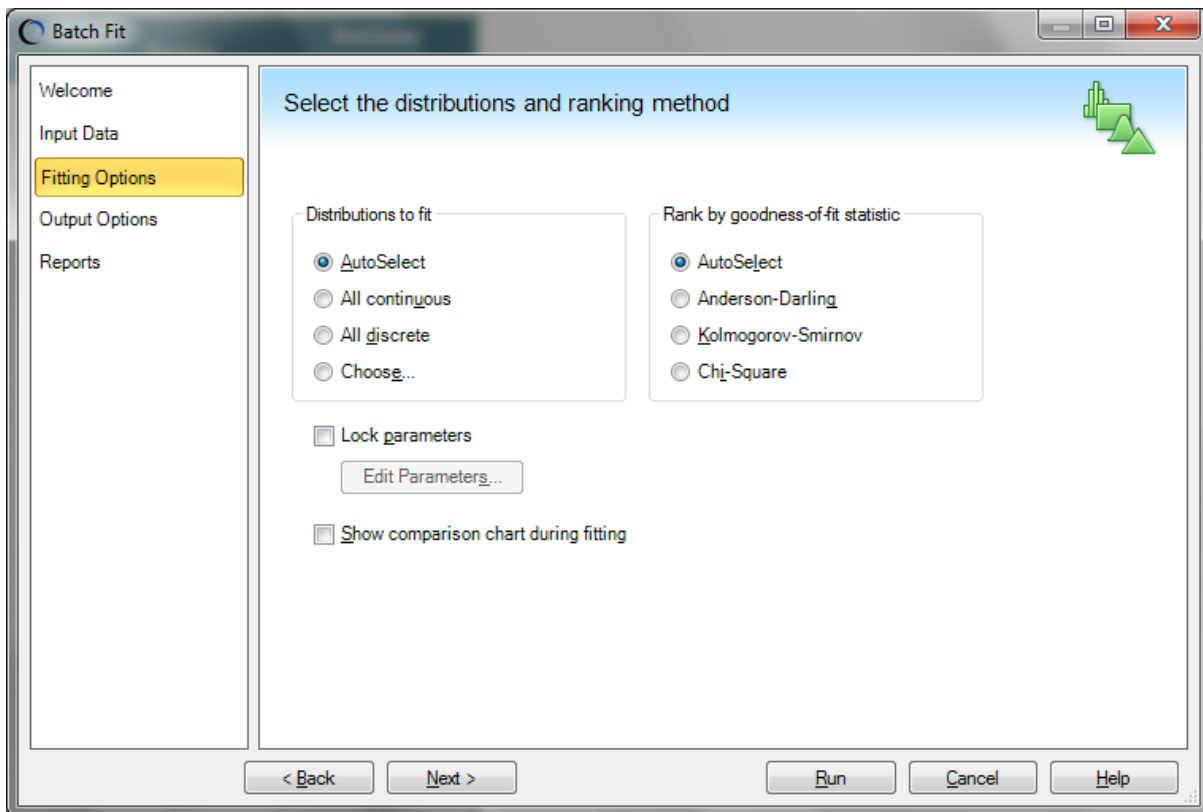
	B	C	D
3	<i>Reader's Digest</i>	<i>Time</i>	<i>People</i>
4	562	362	646
5	494	373	634
6	387	351	672
7	302	358	646
8	630	356	586
9	257	343	601
10	690	344	669
11	510	369	704
12	695	363	613
13	865	368	667
14	545	366	626
15	493	353	610

< Back Next > Run Cancel Help

Batch Fit, continued

SELECTING YOUR FITTING OPTIONS

The tool lists all of the Crystal Ball continuous and discrete that may be fitted to your data series. The AutoSelect setting will calculate the fits for the appropriate distributions using the appropriate ranking method. For example, the tool will only use the Chi-Square method for fitting to Discrete distributions.

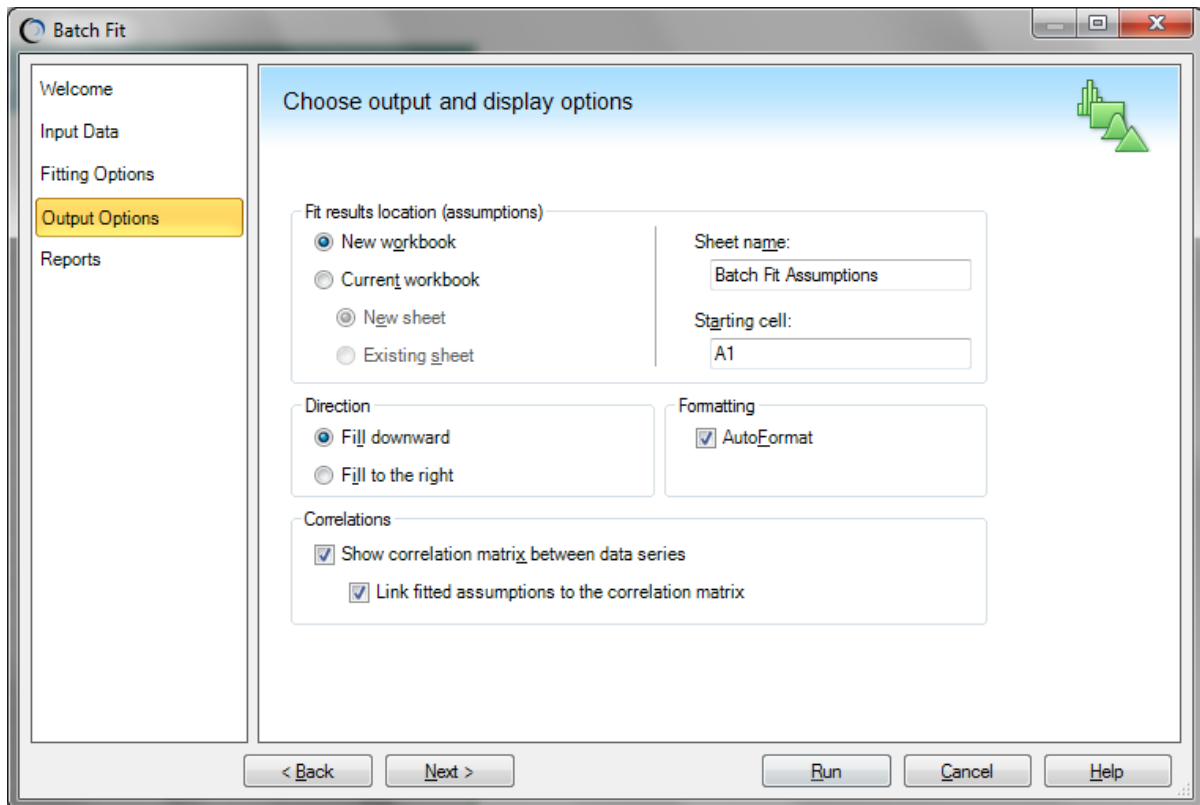


After you have selected the distributions to fit, click on Next to select your Output Options.

Batch Fit, continued

SELECTING YOUR OUTPUT OPTIONS

Choose where you want your assumptions to be created, in a new workbook or in the current workbook. You can optionally choose to output a correlation matrix, showing the relationships between each of the data series (i.e. magazine sales).



In this example, we'll select the two options to calculate correlations between the data series and link them to the assumptions. Click on Next to select your Report Options.

Batch Fit, continued

SELECTING YOUR REPORT OPTIONS

In the final step (shown below), you can choose among several reports that let you see the details of the Batch Fit process, as well as details for the created assumptions.

The screenshot shows a software window titled "Batch Fit" with a sidebar on the left containing the following menu items: "Welcome", "Input Data", "Fitting Options", "Output Options", and "Reports" (which is highlighted in yellow). The main area of the window is titled "Choose report options" and contains two sections:

- Goodness-of-fit report**:
 - Create goodness-of-fit report
 - Show all goodness-of-fit statistics
 - Sheet name:
- Assumptions report**:
 - Create assumptions report
 - Full statistics
 - Sheet name:

At the bottom of the window, there are four buttons: "< Back", "Next >", "Run", "Cancel", and "Help".

Batch Fit, continued

EXAMINING THE BATCH FIT RESULTS

When the Batch Fit tool runs, it fits each distribution to each column of data. The results shown below were posted into a new workbook, but you can have them output to your model worksheet.

	A	B	C	D	E	F	G
1	Data Series:	Reader's Digest	Time	People	National Geographic		
2	Distribution:	499.46	354.66	637.5	480.71		
3	Best Fit:	Neg Binomial	Binomial	Discrete Uniform	Gamma		
4	Rank Methods:						
5	Chi-Square	23.9515	33.3925	33.0667			
6	Anderson-Darling				0.0893		
7	P-Value:	1.000	0.854	1.000	0.997		
8							
9	Correlations:	Reader's Digest	Time	People	National Geographic		
10	Reader's Digest	1					
11	Time	0.0165508	1				
12	People	-0.012844488	-0.005857389	1			
13	National Geographic	-0.012360848	0.060698976	-0.039167797	1		
14							
15							
16							
17							
18							

Row 2 contains the new Crystal Ball assumption for each series, with the distribution type described in Row 3. Rows 5 and 6 show the goodness-of-fit statistics for the best fitting distribution, and Row 7 shows the P-value of the fit (when the value can be calculated). The calculated correlation coefficients are listed in a matrix at the bottom of this sheet (Rows 10-13); these coefficients are also defined within the assumptions.

Using Crystal Ball's Copy and Paste commands, you can copy the assumptions in row 3 to the appropriate cells in your model.

Note: If your historical data have a time-series element, trend, or seasonality, you should use CB Predictor instead of the Fit Distribution functionality.

For more information or to contact us, browse to <http://www.oracle.com/technetwork/middleware/crystalball/overview/index.html>.