

Fast, easy,
accurate forecasting for professionals in
sales, marketing, finance and manufacturing.

Forecast **PRO**®



**TWO-TIME
WINNER**

“Forecast Pro is an effective forecasting tool that will save you time, improve the accuracy of your forecasts, and educate you on the nature of time series data. Forecast Pro is a winning package.”

IN TODAY'S COMPETITIVE BUSINESS WORLD the ability to forecast accurately translates directly into better decision making and increased profits. That's why smart businesspeople around the world are turning to Forecast Pro.

Forecast Pro is easy to learn and easy to use. It does not require a background in statistics or forecasting. In fact, in expert selection mode creating accurate forecasts is literally as easy as clicking a mouse.

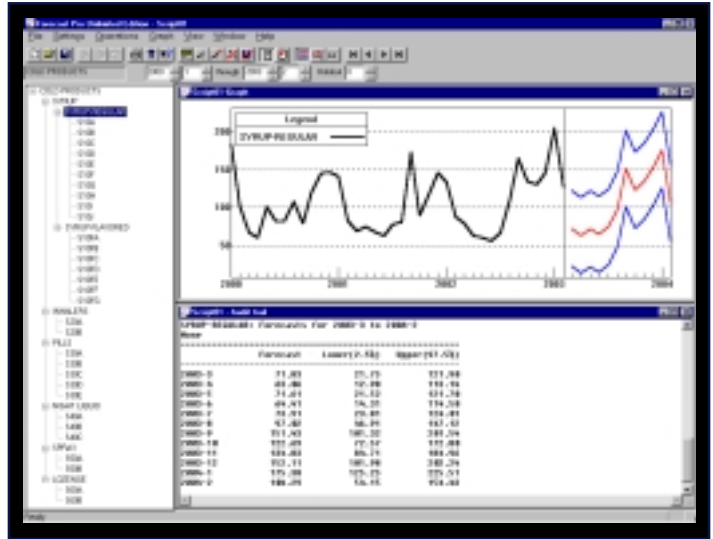
Forecast Pro uses proven statistical forecasting methods to bring you unsurpassed forecasting accuracy. Until now, many businesspeople have avoided powerful forecasting techniques because they were

too complex and took too much time. Forecast Pro gives you optimum models automatically. The benefit to you is enormous. Now you can use the best methodology without sacrificing simplicity or ease of use.

Whether you are forecasting sales, revenues, demand for service or any other important variable, Forecast Pro will make your work easier, quicker and more accurate. It will save you time. It will save you money.

It's easy!

Forecast Pro's expert selection takes the guesswork out of forecasting. You provide the historic data and Forecast Pro does the rest. The built-in expert system analyzes your data, selects the appropriate forecasting technique and calculates the forecasts. Alternatively, if you want to dictate the forecasting approach, Forecast Pro provides a complete range of forecasting models and all of the diagnostic aids you need. Generating reports, viewing graphs, adding your judgment, saving to spreadsheets/text files/databases, collaborating with others, interfacing with your SCM, ERP or other planning system—it's all a snap with Forecast Pro!



“Forecast Pro continues to be the most comprehensive desktop forecasting ‘toolbox’ I’ve seen.”

Terry Juszynski, Warner-Lambert

Forecast Pro proven **accurate** in the largest forecasting competition ever held

Forecast Pro recently outperformed all other software packages and 16 out of 17 academic teams in the largest and most comprehensive empirical forecasting study ever performed. Sponsored by the International Journal of Forecasting, the Makridakis-3 study compared the accuracy of 24 different approaches used to prepare 3,003 forecasts based on historic demand data. Seventeen of the approaches were implemented by forecasting experts from academic institutions, including the Wharton School, Case Western Reserve, INSEAD and the Imperial College (London). The remaining seven were implemented using commercially available, fully automated forecasting packages. Human judgment and statistical expertise played a significant role in many of the approaches. The following chart shows the percentage errors for the different software packages. Visit www.forecastpro.com for full details.

Forecast Pro will:

- ✓ *improve the accuracy of your forecasts*
- ✓ *save time and money*
- ✓ *improve planning*
- ✓ *cut inventory costs*
- ✓ *decrease stockouts*

Forecast Pro includes:

- ✓ *complete documentation including tutorial and statistical reference*
- ✓ *FREE technical support via phone, fax, WebEx and e-mail*
- ✓ *30-day unconditional money-back guarantee*

M3 Competition Results										
Mean Absolute Percent Error: All Data										
<i>Forecasting Horizons</i>										
	1	2	3	4	5	6	8	12	15	18
FORECAST PRO	8.6	9.6	11.4	12.9	13.3	14.3	12.6	13.2	16.4	18.3
Autobox-1	9.8	11.1	13.1	15.1	16.0	16.8	14.2	15.4	19.1	20.4
Autobox-2	9.5	10.4	12.2	13.8	13.8	14.9	13.2	15.2	18.2	19.9
Autobox-3	9.7	11.2	12.9	14.6	15.8	16.5	14.4	16.1	19.2	21.2
Autocast	9.1	10.0	12.1	13.5	13.8	14.7	13.1	14.3	17.7	19.6
ForecastX*	8.7	9.8	11.6	13.1	13.2	13.9	12.6	13.9	17.8	18.7
SmartForecasts*	9.2	10.3	12.0	13.5	14.0	15.1	13.0	14.9	18.0	19.4

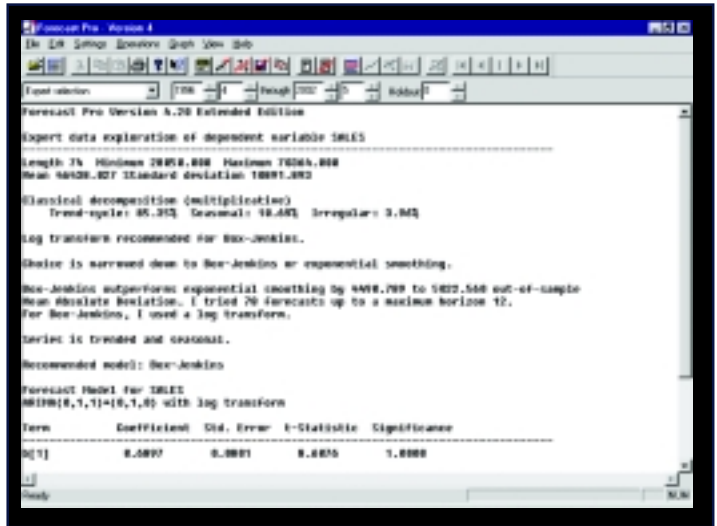
Table adapted from Hibon M. and Makridakis S. [2000]. The M3-Competition: results, conclusions and implications. *International Journal of Forecasting* 16, 451-476. Figures in bold represent first place finishes.

* Entries submitted following publication of initial results (a considerable advantage).

Call 617-484-5050 now for a FREE multimedia CD demo or download it from www.forecastpro.com

Rely on the expert

Forecast Pro's expert selection mode takes the guesswork out of forecasting. The built-in expert system analyzes your data, selects the appropriate forecasting technique, builds the model and calculates the forecasts—it even explains its reasoning in ordinary English!



The right tool for the job

Research shows that no one method works best for all data. That's why Forecast Pro includes five different classes of models. These models, coupled with the expert system to choose among them, will satisfy all mainstream business forecasting needs.

Exponential smoothing

Twelve different Holt-Winters exponential smoothing models are provided to accommodate a wide range of data characteristics. The robustness of exponential smoothing makes it ideal when there are no leading indicators and the data are too short or volatile for Box-Jenkins. You can select the model and set the parameters yourself or let Forecast Pro do it automatically.

Box-Jenkins

For stable data, Forecast Pro supports a multiplicative seasonal Box-Jenkins model. The model can be built completely automatically or interactively using a full range of screen-oriented diagnostics.

Low volume and intermittent demand models

Croston's intermittent demand model and discrete data models are provided to accommodate low volume and "sparse" data (i.e., data where the demand is often zero).

Curve fitting

Curve fitting provides a quick and easy way to identify the general form of the curve which your data are following. Forecast Pro supports four types of curves—straight line, quadratic, exponential and growth (s-curve).

Simple methods

For very short data or extremely volatile data, Forecast Pro includes moving average models.



For **advanced** forecasting use Forecast Pro XE

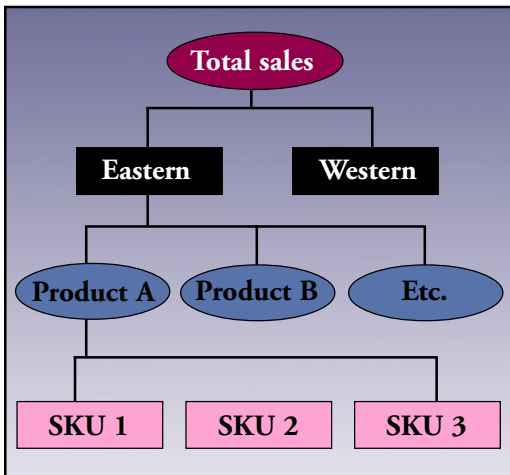
Forecast Pro XE (Extended Edition) expands the base package's data capacity and adds additional methodologies tailored for advanced business needs.

Dynamic regression

If there are important leading indicators use Forecast Pro XE's dynamic regression. You can include independent variables, lagged or transformed variables and build generalized Cochrane-Orcutt models. Self-interpreting diagnostics lead you quickly through the model building process.

Event models

Event models extend exponential smoothing by providing adjustments for special events like promotions, strikes or other irregular occurrences. You can adjust for events of several different types. These could be promotions of different sizes or types, or the effects of movable holidays like Easter and Rosh Hashanah. Event models are easy to build and adaptable to a variety of situations.



Example of a multiple level forecasting job

Multiple level models

Multiple level models allow you to aggregate data into groups that can be reconciled using a top-down or bottom-up approach to produce consistent forecasts at all levels of aggregation. There is no limitation on the number of levels. Seasonal and event indexes can be extracted from the higher level aggregates and applied to lower level data.

Census X-11 seasonal decomposition

Census X-11 factors a time series into its major constituents. The output from this routine includes time series representing the trend-cycle, seasonal, trading day and irregular components. Census X-11 is the procedure the U.S. government uses to

obtain deseasonalized estimates of major macroeconomic indexes.

Batch forecasting

Forecast Pro XE's batch procedure allows you to forecast up to 100 items at a time. Forecast Pro automatically builds a model for each item and prepares the forecasts. You can tell the program which model to use, or you can let the expert system decide.

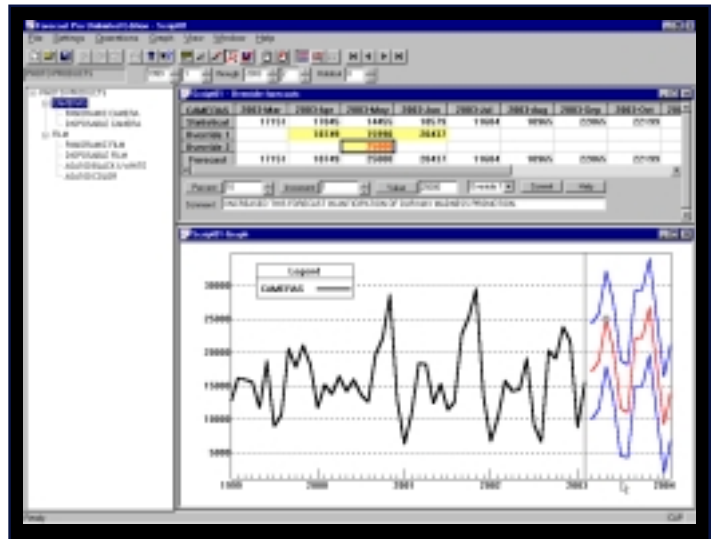


For **large-scale** jobs and

If you need to forecast more than 100 items or collaborate with others in developing the final forecast—then you need Forecast Pro Unlimited. Forecast Pro Unlimited is a state-of-the-art forecasting system designed to automate and simplify large-scale forecasting jobs. It's easy. It's accurate. It's affordable. It will save you time. It will save you money.

Add your judgment and **collaborate** with others

Forecast Pro Unlimited's override facility allows you to adjust the statistical forecasts in a spreadsheet-like display or directly on a graph. You can type in new values, change by a percentage or increment/decrement the selection. A handy comment field and multiple override rows allow you to document your changes and collaborate with colleagues. Changes made at any level of the forecasting hierarchy will automatically reconcile all levels. The ability to save and recall your override files eliminates the need to rekey overrides as new data are added and statistical forecasts are revised.



Integrate with other systems

Integrating Forecast Pro Unlimited with your existing software systems is straightforward. Forecast Pro Unlimited has been formally integrated into a large number of commercially available EIS, MRP, ERP, DP and SCM systems. In each case, Forecast Pro was deemed “best of breed” after intensive evaluation. Visit www.forecastpro.com for full details.

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or download it from www.forecastpro.com***

collaborative forecasting use Forecast Pro Unlimited

With Forecast Pro Unlimited, forecasting ten thousand SKU's is as easy as selecting a data file and clicking the forecast icon. With a few additional clicks of the mouse you can graph the results, view forecast reports, make judgmental overrides and save the results.

Automate your forecasting

You can operate Forecast Pro Unlimited interactively or drive it from the command line. Command-line operation allows you to automate routine forecasting tasks and operate in a "hands-off" mode.

Document your work

Forecast Pro Unlimited provides numerous ways to document your work.

- ✓ **Forecast reports and graphs** including forecasts, confidence limits, model details and diagnostics can be generated and printed from within the program.
- ✓ **Forecast output files** can be saved to Excel and Lotus spreadsheets, ASCII (text) files, XML files or directly to your database via ODBC.
- ✓ **Item reports** can capture any information found in the forecast report in a concise format.
- ✓ **Forecast document files** allow you to save your current forecasting session and return to it later or share it with a colleague.
- ✓ **Forecast override files** allow you to save any forecast overrides, along with supporting comments, and recall them in a future session.

"Forecast Pro Unlimited provides the flexibility we need as our organization continues to evolve. The software is inexpensive, quick to implement and has a simple, friendly interface that makes training easy. Forecast Pro enables us to produce solid, understandable forecasts that drive our business."

**Randy Howard,
Hobart Corporation**

It's fast!

Processing times depend on the hardware, the length of the historical data and the forecasting options selected. As an illustration, a run of 10,000 monthly time series with three years of history, took 2 minutes 58 seconds on a Pentium 4 machine with 512 megabytes of RAM running at 2.4 GHz.



Forecast Pro Unlimited Collaborator makes working with others **easy** and **affordable**

Creating a final forecast is not always a one-person job. Having colleagues review your forecasts and add their insight can often improve the forecasting process. Forecast Pro Unlimited Collaborator is designed to facilitate this collaborative process in a cost-effective fashion. Forecast Pro Unlimited Collaborator is a fully-integrated Forecast Pro Unlimited companion product that allows others to view your forecasts (including graphs, reports, etc.), add overrides and comments, and save the results.

“Forecast Pro Unlimited is so clear and easy to use that people can learn it in a few hours and get outstanding results with no great effort.”

Maria Royo, Desarrollo Tecnológico Comercial

Diagnose your models

All versions of Forecast Pro provide a standardized set of diagnostic screens to help you compare and evaluate models. You get graphs of the residuals and the error autocorrelation function as well as key numeric statistics:

- | | | |
|---------------------|------------|---------------------------|
| ✓ Adjusted R-Square | ✓ MAPE | ✓ Sample Size |
| ✓ Durbin-Watson | ✓ Mean | ✓ Schwartz BIC |
| ✓ Ljung-Box | ✓ RMSE | ✓ Standard Deviation |
| ✓ MAD | ✓ R-Square | ✓ Standard Forecast Error |



“People without backgrounds in statistics or economics can use the system to develop more accurate forecasts—even large-scale forecasts involving thousands of items.”

Work with your **existing** data

All versions of Forecast Pro import data in a variety of flexible, easy-to-create formats including Excel and Lotus spreadsheets, ASCII (text) files and ODBC. These flexible formats allow you to easily import and export data from virtually any source. There is also an on-line editor to enter your data directly, or to modify and amend files.

“A tremendous tool. Forecast Pro makes it easy for us to get the information we need accurately and consistently.”

**Bruce Harned,
Owens-Corning**

“Forecast Pro has increased my productivity way beyond my expectations! The ease of use and flexibility of this product allow me to accurately forecast significant amounts of data and deliver actionable information to my end users.”

**Craig Divine,
Pacific Bell**

Make **convincing** presentations

With Forecast Pro, documenting your work is a snap. Click the graph icon and a graph of your forecasts, historic data, confidence limits and safety stocks instantly appears. A few more clicks and you've printed a forecast report and output your forecasts to a spreadsheet, ASCII file or ODBC-compliant database. As you use the product, Forecast Pro's audit trail faithfully records everything. Each data set, each model, each forecast, each dialogue with the expert, everything is captured so you have a permanent record of your forecasting session.

Evaluate alternative forecasts

If you define a holdout sample, Forecast Pro will automatically generate out-of-sample MAPE, MAD and GMRAE statistics to measure forecast performance. This handy feature allows you to quickly evaluate different models and answer questions like “How accurate would my forecasts have been had I used Forecast Pro last year?”

www.forecastpro.com

Which edition is right for you?

To satisfy different corporate needs, three editions of Forecast Pro are available — Standard, Extended (XE) and Unlimited. Which edition is right for you depends on a number of factors including how many items you need to forecast, which techniques you need to use and whether or not you need to work with others to establish the final forecast.

Forecast Pro Standard is designed for individuals with modest forecasting needs. It utilizes time series approaches (techniques that create forecasts based strictly upon the past history) and allows you to forecast up to 10 items at a time.

Forecast Pro XE is our most popular edition. In addition to time series methods, Forecast Pro XE offers promotional modeling, decomposition, the ability to define and reconcile hierarchies and the ability to forecast up to 100 items at a time.

Forecast Pro Unlimited offers much more than just the ability to forecast a larger number of items at a time. It is designed for larger-scale forecasting jobs, collaborative forecasting, complex hierarchies, integration with other systems, maintaining multiple forecast overrides and documenting your forecasting sessions. If you are forecasting more than 300 items or need to work with others to establish the final forecast, then Forecast Pro Unlimited is the only version of Forecast Pro you should consider.

	STANDARD	XE	UNLIMITED
Expert selection	✓	✓	✓
Exponential smoothing	✓	✓	✓
Box-Jenkins	✓	✓	✓
Low volume models	✓	✓	✓
Simple methods	✓	✓	✓
Curve fitting	✓	✓	✓
Event models		✓	✓
Multiple level forecasting		✓	✓
Dynamic regression		✓	
Census X-11		✓	
Batch forecasting	up to 10	up to 100	unlimited
Command-line operation			✓
Collaborative forecasting			✓
Multiple forecast overrides			✓
Commenting capability			✓

System Requirements: Forecast Pro runs under Windows and NT platforms. Forecast Pro requires a minimum of 32 MB of RAM and 15 MB of hard disk space.

Seminars and training

BFS sponsors a variety of educational events for business forecasters. Our courses are held at various locations throughout the United States and occasionally in Europe. To view a current course schedule, please visit www.forecastpro.com.

Business Forecasting: Techniques, Applications and Best Practices

This comprehensive three-day course covers all aspects of business forecasting. You'll learn how different forecasting methods work and how to apply them to your data. Topics are illustrated using a combination of lecture, real-world examples and hands-on sessions. This course will benefit anyone who needs to generate forecasts from data—Forecast Pro users and nonusers alike.

Forecast Pro Training Workshop

This hands-on one-day workshop is an excellent opportunity for new users looking to get a quick start, long-time users looking to sharpen their skills, or even someone just considering purchasing the program. Each attendee is provided a computer loaded with Forecast Pro and the day is spent working through numerous forecasting exercises.

Forecasting Summit

This annual three-day conference is the ideal opportunity to meet with and learn from fellow forecasters and forecasting experts representing a wide range of industries and disciplines. A multi-track format featuring keynote addresses, educational lectures, tutorials, round-table discussions, case studies, live data analysis sessions, hands-on training and social/networking events, allows you to customize your conference to suit your interests and needs.

“The seminar expanded my knowledge about how to analyze sales history in a more effective way.”

**Pieter Dollpho,
Nabi Biopharmaceuticals**

“After attending the Forecast Pro product training, I now feel confident that we can use this tool effectively for our business model.”

**Richard DiMarco,
DuPont**

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Forecast Pro comes with an unconditional 30-day money-back guarantee

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Florida's Natural Growers • Ford Motor Company • Fresh Express • Gillette Company
GlaxoSmithKline • Harvard University • Heineken USA • Hewlett-Packard • Hill's
Pet Nutrition • Honeywell • Hyatt Hotels • IBM Corporation • Intel Corporation
Interbrew • Intuit • Irving Forest Products • J.C. Penney • Johnson & Johnson • Kal
Tire • Kellogg Company • Kohler Company • Kraft Foods • Lenox China • Logitech
Lucent Technologies • Mary Kay Cosmetics • McNeil Consumer Healthcare • Merck
& Company • Merrill Lynch • Monsanto • Nabisco • Nestle USA • New York City
Transit Authority • Nortel • Ontario Hydro • Oscar Mayer • Owens-Corning • Parke-
Davis • Peco Energy Company • Pennzoil Company • Pfizer • Procter & Gamble
Qwest Communications • Radio Shack • Ralston Purina • Royal Canadian Mint
Russell Stover Candies • SAB Miller • Sherwin Williams • Siemens • Sodexo • Sprint
State of Colorado • T-Mobile USA • Toys R Us • Triumph Motorcycles UK • Tyson
Foods • Unilever Bestfoods • U.S. Postal Service • UPS • Verizon • Vista Bakery
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FORECAST PRO'S ACCURACY CONFIRMED

The M3 Forecasting Competition

Designed to evaluate the accuracy of different forecasting methods, the M3 competition is the largest, most comprehensive empirical forecasting study ever performed. The study, sponsored by the prestigious *International Journal of Forecasting (IJF)*, compared the accuracy of 24 different approaches used to prepare 3,003 forecasts based on historic demand data including monthly, quarterly and annual series. Realizing the significance of this landmark competition, some software vendors have made outrageous claims about the accuracy of their products by showing only selected results from the competition or simply misstating the results.

Overall Results

The M3 results published in the *IJF* in 2000 clearly showed the following¹:

Fact #1: Forecast Pro outperformed all of the other software entrants in the competition by attaining the lowest percent error.

Fact # 2: Forecast Pro outperformed all but one of the 17 academic entries.

In 2005, to address the statistical significance of the M3 results, the *IJF* published new research using methodology which compares each method against the best method and against the mean. The conclusion: **"accuracy of the various methods does differ significantly."**²

Forecasting Monthly Data?

Most businesses are forecasting monthly or weekly data. Since the M3 competition did not include weekly data, a closer look at Forecast Pro's performance with monthly data series—which account for half of the data series in the competition—is warranted. Indeed, the 2005 research looked carefully at the monthly results and the analysis **"shows that Theta [an academic entry] and Forecast Pro are the best methods for monthly data."**³ The table below shows that the other software entrants don't even come close to matching Forecast Pro's accuracy.

Comparison of Software Entrants for All Monthly Data Series in M3 Competition⁴

Software	Rank (out of all 22 entrants)	Is Software Significantly Better than the Average Entrant?
Forecast Pro	2	Yes
Autobox 1	8	No
Autobox 2	9	No
ForecastX	10	No
Autobox 3	11	No
Autocast	11	No
Smart Forecasts	16	No

Get The Facts!

See reverse for details on the results reported above and where to get more information on the full M3 results.

M3 Forecasting Competition Results

¹ As shown in following tables adapted from Hibon M. and Makridakis S., “The M3-Competition: results, conclusions and implications,” *International Journal of Forecasting* 16 (2000): 451-476.

**Average Symmetric MAPE (Mean Absolute Percent Error)
For All Data and All Forecasting Horizons (1-18 months)**

SOFTWARE	
Forecast Pro	13.19
Autobox-1	15.23
Autobox-2	14.41
Autobox-3	15.33
Autocast	14.01
ForecastX	13.49
SmartForecasts	14.13

ACADEMIC TEAMS	
AAM1	14.63
AAM2	14.85
ARARMA	14.74
Automat ANN	14.11
B-J automatic	14.01
Comb S-H-D	13.52
Dampen	13.63
Flores/Pearce-1	14.70
Flores/Pearce-2	14.29
Holt	14.60
Naive2	15.47
RBF	13.75
Robust-Trend	16.30
Single	14.32
Theta	13.01
Theta-sm	13.88
Winter	14.65

² Konig A., Franses P.H., Hibon M and Stekler H.O., “The M3-Competition: Statistical tests of the results,” *International Journal of Forecasting* 21 (2005): 397.

³ Ibid., 403.

⁴ Ibid., 400-402.

The “Rank” shown in the table is based on average rank, as reported in Table 1, p. 400. “Significantly better than average?” evaluates the entrants’ performances using multiple comparisons with the average ranked method, as reported in Table 2, p. 402. The corresponding results for the academic entries are shown below (ranks indicated in italics denote a tie for that particular rank):

Comparison of Academic Entrants for All Monthly Data Series in M3 Competition

ACADEMIC TEAMS	Rank	Significantly Better than Average?
AAM1	na	na
AAM2	na	na
ARARMA	7	No
Automat ANN	19	No
B-J automatic	15	No
Comb S-H-D	3	Yes
Dampen	14	No
Flores/Pearce-1	<i>16</i>	No
Flores/Pearce-2	<i>16</i>	No
Holt	5	No
Naive2	22	No
RBF	3	Yes
Robust-Trend	11	No
Single	21	No
Theta	1	Yes
Theta-sm	<i>19</i>	No
Winter	5	No

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QTY.	PRODUCT	UNIT PRICE	AMOUNT
	Forecast Pro	\$595	
	Forecast Pro XE	\$995	
	Forecast Pro Unlimited	\$4,995	
	Forecast Pro Unlimited Collaborator *	\$995	
		Subtotal	
		Sales Tax (5% MA only)	
		Shipping and Handling	
		TOTAL	

We offer an unconditional 30-day money-back guarantee on all Forecast Pro products so you can buy with complete confidence!

* companion product designed exclusively for use with Forecast Pro Unlimited; see www.forecastpro.com or brochure for details

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 Western Europe/Mexico \$55.00 per copy
 Other International \$80.00 per copy

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