

NFL FORECASTER for Windows

Version 3.0w

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INTRODUCTION

To predict the winners of football games, you must rank the opposing teams; some teams must be better than others. A number of elements may be taken into account, including yards gained passing and rushing, average yards per down, quarterback ranking, and home field advantage. **However, only two things really matter: (1) a team's win/loss record which in turn depends upon (2) the number of points scored by and against that team.** A winning team must win games and to do this it must score more points than its opponent.

Using only scores, NFL Forecaster assigns each NFL team an offense and defense ranking and a sum ranking (offense and defense combined). Based on these rankings Forecaster predicts winners of games and the point spreads. In addition, Forecaster performs a number of other functions such as maintaining various statistics and printing several types of reports. **It only takes 10 minutes a week to enter this week's scores and obtain next week's forecasts.**

Over the past ten seasons, FORECASTER has correctly predicted winners 62% of the time and spreads 54% of the time. Although this does not equal the percentages of some sports handicappers, it should be noted that Forecaster predicted winners and spreads for 93.3% of the games (only 150 of 2,076 games were too close to call), not just Monday night games or "5-star specials." NFL Forecaster usually picks more winners than the handicappers and regularly predicts more spreads correctly than the Las Vegas odds-makers.

Forecaster picks winners and predicts point spreads; it does not try to "beat the spread." For example, let us assume that the odds-makers have predicted that San Diego will

beat the Raiders by two points. If you pick San Diego and they win by two (23-21), you lose; the odds-makers win because San Diego (and, therefore, you) did not beat the spread. However, if Forecaster predicts San Diego will beat the Raiders by two points and they do, then Forecaster "wins"; it correctly predicted the point spread (two or more points).

Forecaster uses only scores to rank teams and it ranks them objectively. Therefore, it cannot take into account that the Raiders are very good on Monday night or that a quarterback broke his arm during practice, but you can. Forecaster is like a personal odds-maker; it doesn't bet, but it will tell you who will probably win, by how much, and why (it shows the rankings it has assigned to each team).

NFL Forecaster is RECREATIONAL SOFTWARE: any interest and pleasure associated with the program is derived from using the program and NOT from any results which might accrue from using its forecasts. It is NOT intended to be used as an aid to placing bets and NO claim is made that it will make you a winner, although the accuracy of its forecasts is greater than from chance predictions (more accurate than flipping a coin).

NFL Forecaster was written using Borland Pascal 7.0. Borland Pascal® is a registered trademark of Borland International. Windows™ is a trademark of Microsoft Corporation. MS-DOS® is a registered trademark of Microsoft Corporation. True Type® is a registered trademark of Apple Computer, Inc. "Data" is considered a collective noun taking a singular verb.

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INSTALLATION AND HELP

Minimum Requirements NFL Forecaster will run on any computer system capable of running Microsoft Windows 3.0 (not in Real mode). Version 3.1 is recommended.

Installation Forecaster's setup program makes **NO** changes to your autoexec.bat, config.sys or win.ini files and it does not change your PATH statement (or any other environment variable). Therefore, you can uninstall Forecaster simply by deleting the various files installed by Forecaster setup.

Setup will correctly install Forecaster from the self-extracting file (forc30w.exe) or from the group of files (already extracted from forc30w.exe) and from one drive and/or directory to another (that is, from a:\ to c:\forecast or from c:\temp to c:\sports or from c:\forecast to c:\forecast).

Use Windows Program Manager's "File/Run" command to execute Forecaster's setup program. A description of each step the setup program takes is contained in setup's on-line help. At setup's main window, press the HELP button. You can read HELP and then quit setup without installing Forecaster.

Help Press F1 whenever a menu item is highlighted for help regarding that menu item. Press F1 whenever a menu is **not** highlighted to invoke the table of contents of Forecaster's on-line help. Choose the "Help" button whenever it is displayed in a dialog box for help regarding the current activity.

In order to obtain on-line help while running Forecaster, the file forecast.hlp must be in the same directory as forecast.exe.

Whenever a menu item is highlighted and whenever the mouse cursor is over a toolbar button, information relevant to that menu item or button is displayed on the status line. If the menu item or toolbar button is grayed (disabled), the status line also explains why.

Except for a few omissions, this entire document is contained in forecast.hlp and, thus, is available on-line via the help menu while running Forecaster.

Reading/Printing the Documentation Although this manual was composed using Microsoft Write, you can read/print it using many other word processing programs. The other text files (readme.1st, etc.) are straight ASCII text files and can be read/printed using any MS-DOS editor or word processing program.

OVERVIEW

Each week you enter the scores for the games played and Forecaster calculates new rankings for each team. Then you indicate the teams that will be playing in the next week's games and Forecaster predicts the winners and spreads. The new rankings must be saved to the main-dta.nfl file so that the rankings can be used the next week. Main-dta.nfl is reused each week; last week's rankings are read into the computer's memory and used to compute new rankings which are then written back to main-dta.nfl.

Every week's rankings should also be saved to weekly archive files which are not updated each week. This is done automatically if you use the Quick function. The archive files contain the rankings of a given week, the scores of that week (except the first week of the season) and the forecasts for the following week (except the last week of the season). These files may be used to find a ranking, score, or forecast of any past week. They can also be used to reconstruct main-dta.nfl if it should become corrupt.

There are two ways to obtain spread forecasts and enter scores using NFL Forecaster: Quick or Slow. For more information, see the Quick and Slow sections.

The easiest way to use NFL Forecaster is to use **Quick** which takes you step-by-step through the process of entering scores, forecasting spreads, saving data and printing reports. You choose the week that you want predictions for and Forecaster reads the NFL schedule from a disk file, displays the teams which have played each other and requests that you enter the scores. It then calculates the forecasts for the next week, saves the new rankings, scores and spreads to disk, prints the reports you choose and displays the rankings in the view windows of your choice.

Forecaster has several other functions and is highly configurable: you can open six different view windows; print five different reports; print or view the NFL schedule; use any font of any size for viewing or printing rankings; sort the rankings eight different ways; use team or city names; add row highlighting and column separators; add frames and titles to the printed reports; and much more.

At the beginning of each season you need to alter two files. In main-dta.nfl, the number of points a team has scored, its win, loss and tie record and other data must be set to zero for the new season. Also, schedule.nfl must be updated with the new schedule. (See the section "Options/Seasonal.") These files can be modified using a word processing program; however, Forecaster provides functions for both of these tasks. You can also purchase an annual update disk which contains main-dta.nfl, schedule.nfl and the latest version of NFL Forecaster (see the section "Annual Update Disk").

RUNNING NFL FORECASTER

You run NFL Forecaster by double-clicking on its icon, by highlighting the icon and pressing the Enter key or by using the Program Manager's File/Run menu. A title and registration reminder dialog box is displayed while NFL Forecaster loads and initializes. When the main menu is displayed, you can press the "OK" button to continue (the button is inactive until then). The title dialog box of the registered version of Forecaster does not contain a registration reminder and will close itself automatically when Forecaster has loaded.

QUITTING NFL FORECASTER

You quit Forecaster by choosing Quit from the File menu or by pressing Alt-F4. If you have loaded a file (either from the File menu or via Quick), entered scores and thus changed the rankings and not saved the new rankings to disk, Forecaster will warn you that you are about to quit without saving the new rankings.

At this point you can choose to save the data before quitting and Forecaster will open a Save As dialog box for you. You can also choose to quit without saving the data (sometimes you may want to enter some scores to see how the rankings would have changed if team x had won instead of lost and do not want to save the new rankings). Also, you can choose to cancel in which case you are simply returned to Forecaster.

ANNUAL UPDATE DISK

Since NFL Forecaster uses game scores, current rankings and accumulated and average points for and points against to compute new rankings and to calculate point spreads, it is necessary at the beginning of each season to modify main-dta.nfl so that these and the number of wins, losses and ties and the win/loss percentage of each team are set to zero. Also, in order to use the Quick function, a new schedule file must be created.

NFL Forecaster provides functions for zeroing main-dta.nfl and for creating a new schedule (schedule.nfl) at the beginning of each season (see the "Options/Seasonal" section). Many users prefer to purchase an annual update disk instead of using these functions. The update disk contains a zeroed main-dta.nfl file, a new schedule.nfl file and the latest version of NFL Forecaster. All **registered** owners of Forecaster are notified when the update disks become available (usually around July 1). In the past the cost has been \$7.00 (including shipping and handling). When you register Forecaster, you receive a coupon worth 25% off the price of your first annual update disk. Annual update disks must be ordered directly from 100% Cotton Software.

WHAT'S NEW?

The following are new to version 3.0w:

1. Moveable toolbar with short-cut buttons
2. Moveable status bar/box
3. Copy to clipboard function
4. Functions to view and print archive scores and spreads
5. Toll-free and credit-card registration available
6. New registration benefits

The following are changed from version 2.0w:

1. Revised to handle new 17-week NFL schedule
2. Archive files now contain scores and spreads as well as rankings
3. Bug that prevented installation on some systems corrected
4. Prediction algorithm improved to smooth weekly fluctuations

The schedule file, `schedule.nfl`, is not compatible with previous versions; there are now 17 regular season NFL games instead of 18. The weekly archive files (for example, `week-11.94`) are not compatible with previous versions; scores and spreads are now saved as well as rankings.

WHY SHOULD I REGISTER NFL FORECASTER?

NFL Forecaster is a copyrighted shareware product; it is not freeware or public domain. You can try it before you buy it and you are encouraged to give copies to others (see "Warranty/ License/Support" for conditions). If you use it after 30 days, you must register it.

When you register NFL Forecaster, you will receive:

1. the latest version of the program (with `main-dta.nfl` current as of shipping day) which does not have any request-for-registration dialog boxes;
2. unlimited, life-time, free (not toll-free) telephone and mail support;
3. complete set of archive files: 10 years of scores, spreads & rankings;
4. 25% discount coupon: toward purchase of annual update disk (\$5.25);
5. \$2.00 coupon: toward registration of any other Cotton Software product;
6. JCSM Shareware CD certificate: thousands of programs for \$9.95 + S&H;
7. and, of course, the appreciation of programmers who strive to produce inexpensive, quality, useful and entertaining software.
8. Teachers are over-worked and underpaid. Therefore, any teacher who registers directly to Cotton Software using his or her school letterhead will receive a \$3.00 rebate check.

You can register NFL Forecaster by sending a check or money order for \$20.00 (US dollars) to: 100% Cotton Software, RR 1 Box 1622, Hop Bottom, PA 18824. Orders outside of the United States should add \$3.00 for S&H. There is a registration form at the end of this manual and on-line.

Credit card orders (MC, Visa, Amex, Discover) may be made through: Public (software)
Library

phone: 800-2424-PsL

713-524-6394

fax: 713-524-6398

CIS Email: 71355,470

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Your order will be processed more quickly and efficiently if you refer to item #11343. The above PsL numbers are for ORDERS ONLY. Any questions about the status of the shipment of the order, refunds, registration options, product details, technical support, volume discounts, dealer pricing, site licenses, etc. must be directed to 100% Cotton Software (717-289-4019). To insure that you get the latest version, PsL will notify us the day of your order and we will ship the product directly to you.

WARRANTY, LICENSE, SUPPORT

User Groups, Computer Clubs, Disk Vendors and Distributors, Subscription Services, Disk-of-the-Month Clubs, BBS SYSOPS, and other distributors should refer to VENDINFO.DIZ for complete information relating to them.

Warranty The author believes that NFL Forecaster is able to do what its documentation says it can do. Every good-faith effort has been made to remove "bugs" from this program and to make the user aware of its limitations. However, it is mathematically impossible to prove a computer program correct. Therefore, users of NFL Forecaster must accept this disclaimer of warranty: NFL FORECASTER IS SUPPLIED AS IS. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE AUTHOR DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR ANY PURPOSE. NEITHER THE AUTHOR NOR ANYONE ELSE WHO HAS BEEN INVOLVED IN THE CREATION, PRODUCTION, OR DELIVERY OF THIS SOFTWARE SHALL BE HELD LIABLE FOR ANY DAMAGES, INCLUDING ANY LOSS OF PROFIT, DATA OR OTHER SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR SIMILAR CLAIMS ARISING OUT OF THE USE OF THIS PROGRAM.

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Certain file of the NFL Forecaster package are updated every year to keep the package current with changed in the National Football League (for example, the schedule). If you have a version that is over twelve (12) months old, contact the author to ensure that you have the latest version. Version 3.0w of NFL Forecaster was released 1 June 1994.

Support Registered owners of NFL Forecaster receive free support for the lifetime of the product. You can call (not toll-free) 717-289-4019 or send a letter to the above address.

WHAT IS SHAREWARE?

Shareware is a distribution method, not a type of software. Shareware distribution gives you a chance to try software before buying it. If you try a Shareware program and

continue using it, you are expected to register. Individual programs differ on details: some request registration while others require it and some specify a maximum trial period. The benefits of registration range from the basic right to continue using the software to an updated program with printed manual.

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You should find software that suits your needs and pocketbook, whether it's commercial or Shareware. The Shareware system makes fitting your needs easier, because you can try before you buy. And because the overhead is low, prices are low also.

Shareware has the ultimate money-back guarantee: if you don't use the product, you don't pay for it. But if you do use it, you **must** pay for it.

WHAT IS ASP?

This program was produced by a member of the Association of Shareware Professionals (ASP), an industry association founded in 1987 to which authors and vendors of Shareware programs belong. As a user of Shareware, you benefit from ASP activities. ASP promotes broad distribution of Shareware so that ASP Shareware programs can continue to be reasonably priced and easily obtained. ASP sets and maintains programming, marketing and support standards that members must follow; thus, you can be sure that ASP Shareware programs are of high quality, marketing is honest and support meets minimum standards. For example, the evaluation copy of an ASP Shareware program may not be limited (crippled) in any way; members must respond to every registration; members must provide technical support for their products for at least 90 days from the date of registration. Should an ASP member move or obtain a new telephone number, you can locate him or her through the ASP Executive Director, 545 Grover Road, Muskegon, MI 49442 USA, CompuServe 72050,1433, FAX 616-788-2765, Voice 616-788-5131.

ASP wants to make sure that the shareware principle works for you. If you are unable to resolve a shareware-related problem with an ASP member by contacting the member directly, ASP may be able to help. The ASP Ombudsman can help you resolve a dispute or problem with an ASP member, but does not provide technical support for members' products. Please write to the ASP Ombudsman at 545 Grover Road, Muskegon, MI 49442-9427 USA, FAX 616-788-2765 or send a CompuServe message via CompuServe Mail to ASP Ombudsman 70007,3536.

You can obtain "The Shareware Compendium," a 768 page catalog of ASP Shareware from many bookstores and directly from the ASP offices.

CATCHING UP

If you obtained NFL Forecaster after the season began, you need to "catch up" -- bring the main data file (main-dta.nfl) up to date (see the "Overview" section). You will need a copy of the NFL game scores from the beginning of the season to the present. Main-dta.nfl contains the rankings for the twenty-eight teams as of the end of the previous season before any playoff games (points for, points against, win, loss, and tie have been zeroed).

1. First, make a backup copy of your disks and install NFL Forecaster.
2. Run Forecaster.
3. Choose Quick from the main menu.
4. In the list box choose "Enter week 1 scores & forecast week 2 spreads."
5. Enter the scores. Forecaster will update the rankings and calculate the spreads for week 2.
6. Press the "No" button when Forecaster asks if you would like to forecast spreads for some non-scheduled games.
7. Press the "Yes" button when Forecaster asks if it should save the updated rankings to disk.
8. Press the "Yes" or "No" button when Forecaster asks if it should print the reports.
9. Press the "Yes" or "No" button when Forecaster asks if it should open the view windows.
10. Repeat steps 3 to 9 until you have entered the scores for the last week that NFL games were played. Of course, at step 4 you must choose the appropriate weeks.

When you are done, you will have one or more weekly archive files and main-dta.nfl will contain the latest rankings and statistics. You can then use Quick each week to update the rankings and obtain spread forecasts. If you want a complete printed record of the predictions, you should choose "Forecast week 1 spreads" the first time you come to step 4; Forecaster will skip to step 6.

Playoff Games

For the playoff games and the Super Bowl, you must use Slow/Enter Scores and Slow/Forecast Spreads because Quick cannot use the schedule file to get scores and forecast spreads (the playoff teams are unknown when the schedule is constructed).

For each playoff game and the Super Bowl,
1. use File/Open to load main-dta.nfl;

2. use Slow/Enter Scores to enter each of the scores;
3. use File/Save As to save main-dta.nfl (press the "Yes" button when Forecaster asks if it should replace the current file);
4. use Slow/Forecast Spreads to obtain forecasts for the next round of playoff games;
5. use File/Print to print the reports that you desire;
6. and use View to view the rankings.

INTERPRETING FORECASTS

In addition to the information in this section, you should also see the section "NFL Average Points Per Game."

Over the last 10 seasons, Forecaster declared only 6.7% (150) of all games (2,226) too close to call (even). It attempts to predict a winner and spread for every game, not just "5-star specials" or "this week's picks." Of the 2,076 games (93.3%) it predicted winners for, it was correct 62% of the time and it correctly predicted the spread 54% of the time. Of course, this includes the difficult to predict strike season and many, many close games (1 or 2 point spreads).

Year-By-Year Accuracy for 10 Seasons (84-85 to 93-94)

Season	Games Predicted	Games Predicted Even	Wins Correctly Predicted	Spreads Correctly Predicted
1984-85	209	15	69%	61%
1985-86	209	15	60%	55%
1986-87	210	14	61%	51%
1987-88	202	8	57%	52%
1988-89	210	14	58%	51%
1989-90	208	16	60%	55%
1990-91	208	16	64%	56%
1991-92	210	14	68%	58%
1992-93	204	20	62%	51%
1993-94	205	19	60%	53%
Averages	93.3%	6.8%	62%	54%

As the season progresses, Forecaster tends to become more accurate in its predictions; changes in coaches and players, offensive and defensive systems, and even locations can affect the strengths of teams which are not reflected in the start-of-season rankings (which are carried over from the previous season). In general, the larger the spread Forecaster predicts, the more likely it is to be correct. The same is true for human forecasters. If Tampa Bay plays San Francisco, we (and Forecaster) will probably predict that San Francisco will win by 2 or 3 touchdowns. Our (and Forecaster's) prediction is more likely to be correct than when we predict that one of two closely-ranked teams will win by a field goal.

Forecaster Accuracy for 10 Seasons (84-85 to 93-94)

If Forecaster predicted a spread of	it correctly predicted the winner	it correctly predicted the spread
1.0 to 1.9	55%	53%
2.0 to 4.9	61%	58%
5.0 to 5.9	69%	46%
6.0 to 8.9	74%	58%
9.0 to 11.9	69%	42%
12.0 to 12.9	75%	38%
13.0 and above	78%	44%
all spreads/games	62%	54%

There are, of course, seasonal averages. For example, for the 86-87 season Forecaster predicted winners in the 6 to 8.9 point range with 88% accuracy but with only 67% accuracy for the 88-89 season. The 87-88 strike season brings down the overall accuracy about .4%.

There is very good correlation between the win /loss/tie records and the average of Forecaster's sum rankings (a measure of offense and defensive strength), except for, Minnesota and Cincinnati (probably due to their strong offenses) and the LA Raiders (probably due to sheer contrariness). Correlation is nowhere near as good between Forecaster's rankings and average points scored by a team (a measure of offense alone) and average points scored against a team (a measure of defense alone).

**Win/Loss/Tie Record for 10 Seasons (84-85 to 93-94)
Compared to Forecaster's Average Sum Ranking,
Average Number of Points Scored by Each Team Per Game,
and Average Number of Points Scored Against Each Team Per Game**

Team	Win Loss Tie	Average Sum Ranking	Average Points+ Per Game	Average Points- Per Game
San Francisco	.758 (1)	128.2 (1)	26.3 (1)	16.0 (1)
Chicago	.642 (2)	114.6 (2)	20.9 (9)	16.6 (2)
NY Giants	.623 (3)	110.4 (3)	20.5 (10)	17.4 (3)
Denver	.619 (4)	108.7 (5)	21.7 (4)	18.8 (5)
Washington	.616 (5)	110.0 (4)	22.6 (3)	19.0 (9)
Miami	.604 (6)	107.0 (7)	23.6 (2)	21.0 (20)
New Orleans	.560 (7)	107.4 (6)	20.5 (11)	18.5 (4)
LA Raiders	.560 (8)	101.8 (15)	20.0 (17)	19.2 (10)
Philadelphia	.541 (9)	104.2 (11)	20.2 (13)	19.0 (6)
Buffalo	.535 (10)	104.6 (10)	21.0 (8)	19.8 (14)
Kansas City	.522 (11)	103.3 (13)	20.1 (14)	19.4 (11)
Houston	.522 (12)	103.3 (12)	21.7 (5)	21.1 (21)
Minnesota	.516 (13)	106.0 (9)	21.5 (6)	19.6 (12)
Pittsburgh	.503 (14)	101.7 (16)	19.8 (18)	19.7 (13)
Dallas	.503 (15)	101.2 (17)	20.1 (15)	20.1 (15)
Seattle	.497 (16)	101.1 (18)	19.4 (20)	19.0 (7)
Cleveland	.487 (17)	102.2 (14)	19.2 (21)	19.0 (8)
LA Rams	.484 (18)	98.7 (20)	20.5 (12)	21.4 (22)
NY Jets	.456 (19)	97.3 (21)	19.8 (19)	21.0 (19)
Cincinnati	.434 (20)	106.9 (8)	21.4 (7)	22.8 (26)
San Diego	.428 (21)	98.8 (19)	20.1 (16)	21.0 (18)
Green Bay	.425 (22)	96.3 (22)	18.9 (22)	20.7 (16)
New England	.421 (23)	93.6 (23)	17.8 (26)	20.9 (17)
Detroit	.406 (24)	92.6 (24)	18.6 (23)	22.0 (24)
Indianapolis	.371 (25)	87.5 (27)	16.2 (28)	21.8 (23)
Arizona	.362 (26)	90.2 (25)	18.3 (25)	22.6 (25)
Atlanta	.336 (27)	89.0 (26)	18.4 (24)	23.9 (27)
Tampa Bay	.270 (28)	83.9 (28)	17.0 (27)	24.5 (28)

Other Information That May Help You Pick Winners

The following information covers the 10 seasons from 84-85 to 94-94.

There were only 5 tie games:

Philadelphia vs Detroit	week 10	84-85	23 points
Philadelphia vs Arizona	week 14	86-87	10 points
Denver vs Green Bay	week 2	87-88	17 points

Kansas City vs NY Jets	week 5	88-89	17 points
Kansas City vs Cleveland	week 11	89-90	10 points

There were only 22 games in which one team scored 50 or more points. The top 10 are:

NY Jets	62	Tampa Bay	28	week 11	85-86
Cincinnati	61	Houston	7	week 15	89-90
Houston	58	Cleveland	14	week 14	90-91
Cincinnati	56	Tampa Bay	23	week 8	89-90
Washington	56	Atlanta	17	week 11	91-93
San Francisco	56	Atlanta	17	week 7	92-93
NY Giants	55	Green Bay	24	week 16	86-87
Indianapolis	55	Denver	23	week 9	88-89
San Francisco	55	Detroit	17	week 16	93-94
San Diego	54	Pittsburgh	44	week 14	85-86

There were only 10 games in which the combined score was 75 points or greater:

98 San Diego	54	Pittsburgh	44	week 14	85-86
96 NY Jets	51	Miami	45	week 3	86-87
90 NY Jets	62	Tampa Bay	28	week 11	85-86
79 NY Giants	55	Green Bay	24	week 16	86-87
79 Cincinnati	56	Tampa Bay	23	week 8	89-90
78 San Diego	50	Miami	28	week 1	86-87
78 Indianapolis	51	Houston	27	week 12	87-88
78 Indianapolis	55	Denver	23	week 9	88-89
76 Pittsburgh	52	San Diego	24	week 13	84-85
76 Buffalo	52	Pittsburgh	34	week 2	91-92

The most points scored by a team: NY Jets 62 Tampa Bay 28 week 11 85-86

There were only 4 games in which the spread was 40 or more points:

54 Cincinnati	61	Houston	7	week 15	89-90
51 Cleveland	51	Pittsburgh	0	week 1	89-90
44 San Francisco	51	Minnesota	7	week 15	84-85
44 Houston	58	Cleveland	14	week 14	90-91

The 10 highest Forecaster sum rankings (100 is average) were:

173.2	Buffalo	week 4	92-93
172.5	Washington	week 3	91-92
172.1	Washington	week 3	91-92
171.2	Cleveland	week 2	89-90
167.3	Washington	week 5	91-92
167.2	Washington	weeks 5, 7, 8	91-92
167.1	Washington	week 7	91-92

166.9	Washington	week 6	91-92
164.5	Chicago	week 12	85-86
164.3	Buffalo	week 3	92-93

The 10 lowest Forecaster sum Rankings (100 is average) were:

36.6	Cleveland	week 1	84-85
44.0	Pittsburgh	week 1	89-90
46.8	Minnesota	week 1	84-85
50.5	Indianapolis	week 1	85-86
51.5	Cleveland	week 2	85-85
51.6	Indianapolis	week 1	85-86
54.3	Indianapolis	weeks 4 & 5	86-87
54.9	Indianapolis	week 3	86-87
55.3	Detroit	week 1	91-92
55.9	Indianapolis	week 7	91-92

The 5 top scoring teams (strongest offense) were:

513	Miami	32.1 per game	84-85
485	Washington	30.3 per game	91-92
475	San Francisco	29.7 per game	84-85
467	San Diego	29.2 per game	85-86
459	San Francisco	30.6 per game	87-88

The 8 lowest scoring teams (weakest offense) were:

140	Seattle	8.8 per game	92-93
143	Indianapolis	8.9 per game	91-92
174	Cincinnati	10.9 per game	93-94
179	Indianapolis	11.2 per game	93-94
181	New England	11.3 per game	90-91
196	Arizona	12.3 per game	91-92
199	Tampa Bay	12.4 per game	91-92
200	Buffalo	12.5 per game	85-86

The 8 teams with the best defense (fewest points scored against them) were:

187	Chicago	11.7 per game	86-87
189	NY Giants	11.8 per game	93-94
198	Chicago	12.4 per game	85-86
202	New Orleans	12.6 per game	92-93
210	Chicago	13.1 per game	93-94
211	New Orleans	13.2 per game	91-92
215	Chicago	13.4 per game	88-89
224	Washington	14.0 per game	91-92

The 7 teams with the worst defense (most points scored against them) were:

484	Minnesota	30.3 per game	84-85
462	Cleveland	28.9 per game	90-91
454	Buffalo	28.4 per game	84-85
452	Atlanta	28.3 per game	85-86
446	New England	27.9 per game	90-91
437	Atlanta	27.3 per game	89-90
436	Atlanta	29.1 per game	87-88

There were 108 shutouts. Atlanta and Detroit were shutout in at least one game in 5 of the past 10 seasons.

8	Indianapolis
7	Atlanta
6	Kansas City, Pittsburgh, Cleveland, Green Bay, New England
5	NY Jets, Arizona, Dallas, Tampa Bay, San Diego, Detroit
4	Houston, LA Rams, Denver, Seattle
3	Philadelphia, LA Raiders
2	Buffalo, Minnesota, Cincinnati, Chicago
1	NY Giants, Miami, Washington
0	San Francisco, New Orleans

Forecaster uses only scores to rank teams. Therefore, it cannot take into account the facts that the Cowboys are not so good in dark uniforms, that Washington is very good at home or that a star defensive end is holding out for a better contract -- but you can. Combining your knowledge with Forecaster's objective predictions, you have a much better than average chance of predicting winners.

BACKUPS

You should save each week's data to a backup archive file (on a floppy disk, for example). This can facilitate reconstructing a disk should it go bad (see the section "Reconstructing main-dta.nfl"). Archive filenames should be easy to decipher. The form used by Forecaster is WEEK-??.yy -- for example, WEEK-03.92 or WEEK-11.95.

You could simply save a copy of main-dta.nfl to a different disk or directory each week, but the file name would give no indication of how many week's data it contained and you would not have backups for all of the weekly archive files.

Use File/Save As to save a backup file. Use the various list boxes in the dialog box to set the path to a different disk. Use the file name Forecaster offers as the default or enter the name you have invented. When you press the "OK" button, Forecaster checks whether a file with the same name already exists on the disk. If it does, you are given the opportunity to replace it or cancel.

RECONSTRUCTING MAIN-DTA.NFL

The total, offense and defense rankings, points for, points against and other data are saved in the file main-dta.nfl (see the section "File Formats). Each week this information is read into your computer and after you have entered the latest scores it is used to compute new rankings which are used to forecast spreads. The new rankings and other data are then saved back to main-dta.nfl. NFL Forecaster cannot function without a valid main-dta.nfl file. If main-dta.nfl is deleted or is corrupted, it must be reconstructed.

Main-dta.nfl and the weekly archive files are identical except for a one-line header which is maintained for compatibility with earlier versions of Forecaster. Therefore, in order to reconstruct main-dta.nfl, you need only to load the appropriate weekly archive file and save it as main-dta.nfl. (This is a good reason for making a backup of the weekly archive file on a floppy disk.)

For example, let us say that it is the Tuesday morning after the games of the 10th week of the 1994-1995 schedule have been played. When you attempt to use Quick to "Enter week 10 scores & forecast week 11 spreads," you receive an error message that says Forecaster cannot read main-dta.nfl. After trying several times it becomes clear that main-dta.nfl is no longer useful, so you need to reconstruct it. The latest weekly archive file on your disk would be week-09.94. Use File/Open to load week-09.94. Use File/Save As to save the data as main-dta.nfl. That's all there is to reconstructing main-dta.nfl. Now you could use Quick to "Enter week 10 scores & forecast week 11 spreads."

FILE FORMATS

Schedule.nfl, forecast.ini, main-dta.nfl and the weekly archive files are ASCII text files. They can be easily viewed and modified using a word processing program. However, ONLY forecast.ini should ever be modified. Care must be taken that all data items are included in each file, in the correct order and in the correct format. NFL Forecaster takes care of this for you; you should never have to modify these files except in one case (see the section "NFL Average Points Per Game").

Main-dta.nfl The data file which is loaded and saved each week (main-dta.nfl) is identified by the characters "MD" as the first item in the file. This is followed by information concerning each of the 28 NFL teams: total value, offense value, defense value, win/loss/tie percentage, accumulated points scored by the team and against the team, number of wins, losses and ties, and a sort tag indicating the team's ranking as last sorted. A single character sort key is also saved indicating by which category the teams were last sorted. Finally, the average number of points scored by each team per game for the last week is included.

Weekly archive files The archive files contain the same information as main-dta.nfl, except that the first item in the file is "AD" indicating the file is an archive data file. This two-character header is maintained for compatibility with earlier versions of NFL Forecaster. In addition, the archive files contain the scores of a given week (except the first week of the season) and the forecasts for the following week (except the last week of the season). These files may be used to find a ranking, score, or forecast of any past week. They can also be used to reconstruct main-dta.nfl if it should become corrupt.

The contents of these files does not change. There should be one archive file for each week of the season. They are normally titled WEEK-xx.yy (where xx = week and yy = year). Week-00.yy is the archive file for the first week of the season (when you obtain forecasts, but do not enter scores). Archive files are saved automatically by Quick.

Forecast.ini This file is a standard Windows .ini file. There is no need to modify any item in this file, except for NFL Average Points per Game (see the appropriate section); NFL Forecaster handles reading and writing this file.

Schedule.nfl The first line of a schedule file contains the version number. The current version number is 1.5; earlier 16-week, 17-week and 18-week schedule.nfl files contained different version numbers. The following lines contain twenty-eight numbers, each separated by a space. Each number represents a team; each pair of numbers represents a game; each line represents a week of games. The last line of schedule.nfl indicates the NFL season of the file -- for example, ".94-95".

ERROR MESSAGES

There are a number of messages that Forecaster may issue which are self-explanatory, such as "No reports have been selected for printing." The following is a list of other (error) messages with explanations. Most of these messages are related to reading from and writing to disk. There are many causes for these errors (including bad disks, corrupted DOS, unstable Windows); therefore, there may other causes for the errors than those listed below.

2. Not an NFL Forecaster data file. An attempt was made to load a file and its internal format is not what Forecaster expects. You have probably chosen the wrong file to load.

3. Unable to open/read data file. Forecaster is unable to load a file because it does not exist, it is empty, it is corrupted, the DOS path, Options/Path or file name is invalid.

4. Can't find main-dta.nfl or schedule.nfl file. Forecaster is unable to find one of these files in the current directory, in the DOS path, or in the Options/Path. Set DOS path or Options/Path correctly.

5. Wrong version of schedule.nfl file. You have attempted to load an older schedule file (pre-1993-94 schedule).

6. Unable to read schedule.nfl file. The schedule file is the correct version, but is incomplete.

18. The page is not large enough to print the report. Forecaster has attempted to reduce the font size until the report will fit on the page and has reached 0 size. This error usually indicates that the Paper Size parameter you set via Printer setup is incorrect. The font you have chosen may be invalid (its disk file is corrupt or it does not accurately report its size). Windows (especially 3.0) may not be able to map your font to an appropriate font and size. Try another font.

22. Unable to open/write data file. This may result if a file is locked, if its name is invalid, if the DOS path or Options/Path is invalid and sometimes if the disk is full.

23. File Open: Options/Path is invalid. You have attempted to load a file and the path you have entered via Options/Path is invalid; it may contain invalid characters or point to a non-existent subdirectory or disk.

24. File Save As: Options/Path is invalid. See error 23.

27. Error reading/writing data file. Forecaster is unable to load or save a file because it does not exist, it is empty, it is corrupted, the DOS path, Options/Path or file name is invalid, the file is locked or the disk is full.

28. Error renaming/deleting data file. This error occurs when you are either zeroing main-dta.nfl or creating a new schedule. Forecaster must rename the current files to .old and sometimes delete the .old files. The problem may be a bad disk or an invalid path.

30. Schedule file is corrupt. Schedule.nfl is the correct version, but it contains invalid data.

31. Unable to create toolbar or status line. Prior to this message you will receive

another message which will indicate whether it is the toolbar or status line that can't be created. The program will continue without the toolbar or status line. The most likely cause is insufficient system resources; shut down other applications to free up resources.

Fatal Status Line error: 9

Fatal Toolbox error : 9 Forecaster is unable to create the status line or toolbar and the cause is very serious: Forecaster will not continue. It will shut down, because there are not enough system resources to run the program or forecast.exe has been corrupted. If you continue to receive these messages even when no other programs are running and you have done a clean boot, you must assume that forecast.exe is corrupt. Reinstall Forecaster to put a new, clean copy of the program on your disk.

-1 Can't load names.

-2 Can't load header or error lines.

-3 Can't load message or print lines. Forecaster is unable to run if any of the conditions indicated by these messages occur. They indicate that the program file, forecast.exe, has been corrupted. Reinstall Forecaster.

Errors 12, 13, 14, 15, 17, 20, 21, 25, 26, and 29 indicate some sort of system error. The system has become unstable. This may be because Windows has run out of memory or resources. There are a number of other causes. If you receive one of these error messages, you should quit NFL Forecaster, quit Windows and reboot your computer. Do not attempt to save any data you have entered (scores, schedule entries) to disk; since the system is unstable, an attempt to save data to disk might corrupt the entire disk.

MISCELLANEOUS

You should remember that data saved on a RAM disk is volatile; it disappears when the electricity is turned off (unless you have a memory board with battery backup). Thus, it is important to transfer data files from the RAM disk to permanent media (floppy or hard disks).

When you are entering scores, if a team scores more than 98 points, just enter 98. This is so far above the average of 21 points per game that the increase in the team's offensive ranking (and the decrease in the opponent's defensive ranking) will be so substantial that the difference between 98 and, say, 103 will be negligible. If a team ever scores more than 98 points (in the last 9 years the highest score was 62 points and the record is 99), we will provide an update to NFL Forecaster at no charge to any registered user who writes or calls.

NFL AVERAGE POINTS PER WEEK

There is a value that is **crucial** to the proper working of NFL Forecaster: the average

number of points scored by a team each game. Historically, every NFL team scores 21 points per game on average, although this has been decreasing in recent years. Rankings are based on the percentage that any given team is better or worse than the offense and defense average (this is an oversimplification, but basically true). That is, a team that scores 30 points per game has a stronger than average offense and a team that holds its opponents to 19 points has a stronger than average defense. However, rules changes can affect this value; a liberalization of the rules governing pass defense could result in fewer passing yards (and points) being gained.

Average Number of Points per Game per Team for the Last 10 Seasons

	All Points/ All Games	Avg of Weekly Avgs
84-85	21.21	20.94
85-86	21.53	21.48
86-87	20.52	20.51
87-88	21.60	21.59
88-89	20.26	20.19
89-90	20.61	20.61
90-91	20.12	20.20
91-92	18.97	18.95
92-93	18.73	18.72
93-94	18.70	18.80
10 year avg	20.22	20.20

Because this value is so important to Forecaster, there is no menu option to change it (accidentally changing this value could skew all of the rankings and forecasts). You can change the value by using an editor or word processing program that can load and save plain ASCII text. In the General section of forecast.ini you will find an entry that looks like this: "NFLAPPG=2.100000000E+01" or "NFLAPPG=21.0". To change this, replace the number that follows the equals sign. There is no need to enter a number with more than two decimal places (20.78 or 21.09); precision greater than that will have little or no effect upon the rankings.

As you can see from the table above, the average fluctuates, and the 10-year average is down from 21.0 to 20.2 (excluding playoff games). However, only in the last 3 years has there been a significant deviation from the 21 point average. The NFL is very sensitive about decreases in scoring (fans complain) and changes the rules in order to keep the scoring at its historical average. Therefore, it is probably unwise to modify this value unless there is a significant and lasting change in the average number of points scored per game by each team, although some users do change this value every year to reflect the average points per game for the preceding season.

NFL FORECASTER COMMAND REFERENCE

1. FILE

Generally, Forecaster Quick handles loading and saving data files for you. Sometimes, however, you may want or need to load and save yourself. You need to load main-dta.nfl, enter the scores and save main-dta.nfl yourself (1) for the playoff games and (2) when there is a disruption of the NFL schedule as happened in 92-93 when a hurricane caused the Miami-New England game to be postponed for several weeks. You could not use Quick to enter the scores for the first week because there was no score for the Miami-New England game. And, during the week when the postponed game was played, Quick would not forecast spreads for the Miami-New England game because it was not on the schedule. So it was necessary to load the data, enter the scores, obtain forecasts and save the data yourself. (3) There may be times when you want to load archive weekly files for information purposes -- to view or print the ranking of a particular team at a particular time or look back at some scores or spreads. (4) Finally, if you want to export the scores you enter each week to another program (a database program, for example), you should enter the scores and save the data (probably using Quick), use File/Open to load the archive file, open the Archive Scores/Spreads view window, and use the clipboard to copy the data to Windows clipboard.

1.1 File_Open Choosing File/Open causes a Windows common dialog open file dialog box to appear. You can enter the name of a file or choose it from the list box. In the lower left corner is a file-type list box which enables you to filter the files that appear in the filename list box: one filter will allow only weekly archive files to appear; another will allow only main-dta.nfl (and other files with the .nfl extension) to appear; the third will allow all files to appear. When you press the "OK" button or double-click on a file name, Forecaster will examine the file to determine that it is a valid Forecaster data file before loading it. Once the file is loaded you can View or Print the rankings or use Slow to Enter Scores or Forecast Spreads.

If you have loaded the file just to View or Print rankings, you can load another file or quit Forecaster. If you have loaded a file and entered scores, you probably will want to use File/Save As to save the data; entering scores causes the rankings to change and you probably want to save these changes. If you attempt to quit Forecaster after entering scores, it will remind you that you have not saved the new rankings to disk and ask if you want to save the data first.

1.2 File_Save As Choosing File/Save As causes a Windows common dialog file save dialog box to appear. Forecaster will offer the name of the file you have loaded as the default name for saving. You can accept that name, enter another name or choose a name from the list box. In the lower left corner is a file-type list box which enables you to filter the files that appear in the filename list box: one filter will allow only weekly

archive files to appear; another will allow only main-dta.nfl (and other files with the .nfl extension) to appear; the third will allow all files to appear. When you press the "OK" button or double-click on a file name, Forecaster checks whether there is a file with the same name already on the disk. If so, it will ask you if it should be replaced.

File/Save As can also be used to make backups of each week's rankings. After you have used Quick to enter the scores, obtain forecasts, print the rankings, and save the data, you can use File/Save As to save the data to another disk. If you do not regularly back up your entire hard disk, we recommend that you make a weekly back up of the Forecaster data files. Then, if an electronic glitch should cause main-dta.nfl to become corrupt in the 14th week of the NFL season, you will not have to reenter all of the season's scores in order to bring main-dta.nfl up to date.

1.3 File_Print You can print five reports which are basically the same as what you see in the five View windows. You can also print the NFL schedule from the Options/Seasonal menu (see the appropriate section).

When you choose File/Print, a reports dialog box pops up with a check box for Spreads, Team Rankings, Division Rankings, Category Rankings and All 4 above. There is also a check box for Archive scores/spreads which will be disabled unless you have loaded an archive file. Check the reports you want to have printed and press the "OK" button. When you save options (Options/Save options), a list of the currently checked reports is saved. (The state of the Archive scores/spreads check box is not saved.) Thus, if you would like to print a Team Rankings and Spreads report each week, check these two reports and print the reports. Then choose Options/Save options. Now the print reports dialog box will pop up with Team Rankings and Spreads already checked and you can just press the "OK" button.

You can print the reports and schedule using any font, size, effect, and style available on your computer system. Each report is centered horizontally and vertically on the page based upon the currently selected font and font size (see the "Fonts" section for more information). If the report will not fit on the page, Forecaster will warn you that it needs to reduce the font size and ask if you want to continue. Since some reports take up more room on a page, you may get a warning for one report (Category Rankings) and not for another (Spreads). You can turn this warning off (see the "Options/Print/Font Warning" section).

Each report can be printed with or without a frame -- a box drawn around the report or schedule (see the "Options/Print/Frame reports" section). You can have Forecaster print a title (up to 15 characters) in the upper left corner of each report (except Archive scores/spreads); you might want to put your name here (see the "Options/Print/Title of reports" section). The Spreads report contains three columns on the right side for checking-off for each game whether Forecaster predicted the win correctly and the

spread correctly and whether you chose the winner correctly. You can have Forecaster title this column for you (see the "Options/Print/Spreads initials" and "Spreads report" sections).

If you have checked Options/Row highlighting and/or Options/Column separators (see the appropriate sections), the Team, Division and Category Rankings reports will have row highlighting and column separators. The Spreads report has its own row highlighting and column separators which cannot be turned off. The names used for each team are determined by what you have selected under Options/Names.

At the top right of each report (except Archive scores/spreads) is printed the season and week (if you are using Quick). While the reports are printing, a "cancel printing" dialog box is displayed. If you press the "Cancel" button, the currently printing report is finished and then printing is canceled.

1.3.1 File_Print_Spreads Report The Spreads report shows the same information as seen in the View Spreads window as well as additional items. Boxes before each team name are provided so that you can check your choices. Spaces are provided after the team names for noting the scores. The right side contains three columns with a cell for each game -- two for checking off whether Forecaster correctly predicted the winner and the spread (Forecaster will blank out any game cell which is predicted as even) and whether you correctly picked the winner (you may put your initials at the top of this column via Options/Print/Spreads initials). At the bottom right side, cells are provided for the total number of predictions, of correct choices and of correct percentages for each week for each column and to keep running totals for the season. (Forecaster will automatically calculate the total number of weekly predictions for you.) It is interesting as the season progresses to see how well Forecaster does at predicting winners and spreads and how well you do.

The spread report contains the forecasts calculated up to the time of printing whether this is two or sixteen. If no spreads have been forecast, Forecaster will display an error message and return you to the main menu.

1.3.2 File_Print_Team Rankings Report The Team Rankings report is very similar to the View Team Rankings window. The field upon which the rankings were sorted before printing is indicated by an asterisk to the left of the field name. The average number of points scored by each team is printed at the bottom of the report. At the end of the season you can use this number from each week's Team Rankings report to calculate the average number of points scored by each team in each game for the season. (See the "NFL Average Points Per Game" section about the importance of this number.)

1.3.3 File_Print_Category Rankings Report This report provides the same

information as the View Category Rankings window, except there are no columns for Average Points per Game For and Average Points per Game Against due to lack of space on the printed page.

1.3.4 File_Print_Division Rankings Report This report provides the same information as the View Division Rankings window.

1.3.5 File_Print_All 4 above If All 4 above is checked in the Reports dialog box, Team, Category and Division Rankings and Spreads reports will be printed, whether other reports are checked or not.

1.3.6 File_Print_Archive Scores/Spreads In order to print archive scores or spreads, you must load an archive data file first. This function prints the scores of the week of the archive file (except the first week, week-00.yy) and the spreads for the following week (except the last week, week-17.yy). They are printed on a single page with the name of the archive file as titles. They never have highlighted rows or column separators. The Archive Scores/Spreads check box is always unchecked when you invoke the print dialog box; you must explicitly check it each time.

If you print the spreads report each week and fill in the scores, there is no need to print archive scores or spreads. However, if you want a separate, printed copy of the scores each week, do the following. Use Quick to enter scores, obtain forecasts, save data, and print the reports. Then choose File/Open and load the archive file for the current week (it was just saved by Quick). Then choose File/Print/Archive Scores/Spreads.

1.4 File_Print Setup This command opens a Windows common dialog box which is used to pick a printer, set page size, orientation, etc.

1.5 File_Exit See the section "Quitting NFL Forecaster."

2. Quick

Rather than loading a data file (File/Open), individually entering scores for each team (Slow/Enter Scores), choosing teams for spread forecasts (Slow/Forecast Spreads), and saving the data back to disk (File/Save As), you can use the Quick function which does this semiautomatically. You must use the Slow functions to enter scores and predict spreads for the playoff games (see the "Slow" section).

When you choose Quick from the menu, Forecaster displays a modal dialog box; from the list, pick which weeks you want to enter scores/forecast spreads for. Forecaster reads the disk files main-dta.nfl (which contains the current rankings) and schedule.nfl (which contains the current schedule).

Quick then opens a dialog box for entering scores. The teams are displayed by conference and division in six columns. Use the mouse or keyboard to choose the teams that will play in next week's games and enter the appropriate scores for the week just completed. You can choose teams and enter scores in any order.

A score of twenty-one will be highlighted in the combo box where you enter the scores. Acceptable scores range from 0 to 98 (see the "Miscellaneous" section). When the teams and scores are correct, press the "Enter" button. Forecaster will prompt you to confirm that the teams and scores are correct and if you answer yes it will display them in the lower part of the screen. Forecaster will not allow you to choose a team to play itself. When you confirm that the teams and scores are correct for each game, Forecaster removes the team names from the list box.

Since Forecaster has read the schedule, it will know when all of the scores have been entered and immediately update the rankings based upon the new scores. You can press the "Cancel" button at anytime to throw away any scores entered so far.

If you make a mistake entering scores, and do not catch the mistake when Forecaster prompts you to confirm the scores, press the "Cancel" button. Do not save the data. Choose Quick from the menu and start over.

After Forecaster updates the rankings, it will ask if it should save the new rankings to disk. You should answer yes, unless you have some special reason for not saving the rankings. Forecaster will then save main-dta.nfl and a weekly archive file.

Then Forecaster will calculate the spreads for the next week and ask if you would like to forecast some non-scheduled games. You can forecast a maximum of 16 spreads each week (2 extra for a normal 14-game week). Some users like to calculate the spreads for their favorite team against other teams (archrivals, strongest, division leader) each week. If you answer yes, a dialog box similar to the Slow/Forecast spreads (see the appropriate section) dialog box will open.

When you have gotten the spreads for as many non-scheduled games as you want/can (or if you choose not to obtain non-scheduled spreads), Forecaster will ask if it should print the reports. If you answer yes, the print reports dialog box will open (see the appropriate section). Check the reports you want (Spreads, Team Rankings, Category Rankings, Category Rankings, All) and press the "OK" button to print them. (see "Printing" for more information)

Finally, Forecaster will ask if it should open the view windows. If you answer yes, it will call View/Restore Layout (see the appropriate section), opening the view windows in the sizes and positions that you last saved via Views/Save Layout.

The week before the first game of the NFL season use Quick to "Forecast week 1 spreads." (The archive file for this week is week-00.yy.) After the first week's games have been played, but before the second week's games are played, use Quick to "Enter week 1 scores & forecast week 2 spreads." Each week until after the last week you use Quick to "Enter week x scores & forecast x+1 spreads." After the last game of the season, you need to "Enter week 17 scores" (since there is no 18th game to predict spreads for).

For the playoff games and the Super Bowl, you must use Slow/Enter Scores and Slow/Forecast Spreads because Quick cannot use the schedule file to get scores and forecast spreads (see the "Slow" section). See the section "Options/Seasonal" for information about zeroing main-dta.nfl before the start of each season and about creating a new schedule file. See the "Annual Update Disk" section for information about purchasing an annual update disk (with the new NFL schedule, a zeroed main-dta.nfl file and the latest version of NFL Forecaster).

3. VIEW

The View function enables you to open a view window for team, division and category rankings, and spreads. The average points per game may be displayed in a modal dialog box. Scores and spreads from an archive file can also be viewed. The View menu item is enabled whenever you (or Quick) load a file. More than one view window may be open at the same time and each can be resized and moved (except the average points dialog box).

Depending upon the font you have chosen and its size, scroll bars may appear at the right and bottom of a view window (see Fonts for more information). Use the scroll bars to scroll the window horizontally and vertically. The Home key resets the View window to the upper left corner. The End key resets the View window to the lower left corner. The Page Up and Page Down keys (or clicking on the scroll bar above or below the thumb button) move the contents of the View window up or down one window; for example, if 8 lines are being displayed in a View window and you press the Page Down key, the next 8 lines will be displayed. The Up and Down arrow keys (or clicking on the vertical scroll-bar arrows) scroll the window vertically 1 line. The Right and Left arrow keys (or clicking on the horizontal scroll-bar arrows) scroll the window horizontally about one or two character widths (depending upon the font chosen). Holding down the Control key while pressing the Left or Right arrow key (or clicking on the scroll bar above or below the thumb button) will scroll the window about one-fourth its entire width.

Each view window has a system menu which you open by clicking on the system box at the upper left side of the window (to open the menu from the keyboard, press Alt-hyphen). You can use this menu to close, maximize, minimize, etc. the view window.

There are several ways to switch from one view window to another: simply click the mouse in a particular window; use a view window's system menu; press Ctrl-F6 or Ctrl-Tab; choose a different window from Forecaster's Window menu.

3.1 View_Spreads The forecasts are listed down the screen with the winning team, the losing team and the point spread listed left to right. If a game is declared to be EVEN (too close to call), the order of the team names is irrelevant; the team on the left has NO advantage over the team on the right. Forecaster does not predict spreads greater than 28 points. Only sixteen spread forecasts can be obtained at one session; see also Forecast Spreads. Since the spreads are based on the rankings, Forecaster will forecast spreads of partial points -- for example, 6.5 or 3.2. Of course, no team can score partial points, but Forecaster gives you precise spreads rather than rounding them to 1, 2, 3, 6, or 7 points. This is especially useful when two teams are about equally strong. It would be misleading to forecast that a game between Dallas and San Francisco is even or that one team will win by a field goal when in fact one is only 1.2 points stronger than the other.

3.2 View_Team Rankings Across the screen are listed: the team's rank (1-28); the team's name; the total ranking; the offense ranking; the defense ranking; the number of points the team has scored (Pts+); the number of points scored against the team (Pts-); the average number of points the team has scored each game (Apg+); the average number of points scored against the team each game (Apg-); the team's win-loss-tie percentage (0.000-1.000); and the number of games won, lost and tied (0-16). The team's name is also displayed at the right side to make it easier to read the rankings when the window is scrolled to the left.

The sum, offense and defense rankings range from 0 to 200 with 100 being an average sum ranking, 101 being an average offense ranking and 99 being an average defense ranking. Roughly, average means that a team consistently scores twenty-one points per game (or whatever the average points per game is; see the relevant section below) and holds the opposition to twenty-one points per game. The higher the ranking, the stronger the team is. An average team will display about 21 in the Apg+ and Apg- categories. A strong offensive team will show Apg+ values greater than 21 and a strong defensive team will show Apg- values less than 21.

See the section "Sorting" for information about sorting View Team Rankings.

3.3 View_Division Rankings Rather than being displayed in sorted order (by some category) from 1 to 28, the View Division window displays the teams sorted within their division and conference. They are sorted automatically by win/loss percentage; you cannot sort them by other categories. The same information is displayed across the screen as with the View Team window, except that the rank listed at the left of the screen is the rank of the team according to the last sort category used.

3.4 View_Category Rankings This function automatically sorts each of the eight categories (sum, offense and defense rankings, points for, points against, average points per game for, average points per game against, and win/loss percentage) and lists the teams under the category headings. There is a trade off between Category and Team Rankings displays. Category Rankings is the quickest way to get an overall picture of all of the rankings. You can sort by any of the eight categories with Team Rankings, but you can see the rankings displayed only by one sorted category at a time. Category Rankings shows you all eight sorted categories at one time. However, only the team names are displayed and not the actual rankings.

3.5 View_Restore Views Layout

3.6 View_Save Views Layout The views layout includes the position and size of each view window (Spreads, Team, Category, Division) that is open. For example, let's say that each week you would like to look at the team and division rankings and the spreads. Open each window and size and position them the way you would like. Then choose View/Save Views Layout. The layout will be save to forecast.ini. Now, any time that you choose View/Restore Views Layout, the three windows will be opened, positioned and sized as you saved them. Of course, the spreads view window will not open unless spreads have been forecast. The last thing the Quick function will ask you is whether you want to open the view windows. If you answer yes, Quick will call Restore Views Layout.

To clear the layout, choose Save Views Layout when no view windows are open; then when you choose Restore Views Layout, the four view windows will be opened (if spreads have been forecast) and cascaded.

The views layout is saved from the View menu, not from the Options menu. When you choose Options/Save, the views layout is not saved. This means that you can make changes (for example, turning row highlighting on or off) and save them without having to be sure that all of your view windows are open, positioned and sized correctly. Conversely, you can make changes to the views layout and save it without having to be concerned that all of the other options are set correctly.

The view archive data window is neither saved nor restored.

3.7 View_Average Points When you choose this menu item, a modal dialog box opens with two pieces of information: the average points per game contained in the loaded file and the average points per game calculated after new scores have been entered (this will be 0 until scores are entered). You might use this if you do not regularly print a Team Rankings report which includes the average points per game each week it is printed.

You can also use this option to obtain the average points per game per week for an entire season, by loading each weekly archive file (File/Open) and then View/Average points. This information is useful if you adjust the NFL Average Points per Game (see the appropriate section) after each season.

3.8 View_Copy To Clipboard This function will copy the contents of the view window (Spreads, Team, Category, Division, Archive Scores/Spreads) that has the focus (the one on top) to Windows clipboard. You can then switch to another application and use Windows Paste function to paste the data into the other application. NFL Forecaster has no Paste function; it makes no sense to try to paste data from another application into Forecaster.

The data in the view windows is aligned in columns using tabs. When you paste it into another application (such as a word-processing program or editor), it may not line up correctly because: Forecaster's tabs are set at absolute positions (not a specific number of spaces); tabs may expand to a different number of spaces in different programs; the proportional fonts you can use in Forecaster may disrupt alignment. Usually, all you need do is insert additional tabs to align the columns.

Because Forecaster's view windows are wide, when you paste data into another application, the lines may wrap (if the application has word/line wrap). You can either use a smaller font or decrease the left and right margins.

When Forecaster data is pasted into a spreadsheet (such as Microsoft's Excel), the data will automatically align correctly.

3.9 View_Archive Scores/Spreads Archive scores and spreads can be viewed only after you load an archive file. No scores are displayed for week-00.yy and no spreads are displayed for week-17.yy. Assuming you have loaded week-09.93, the scores displayed are those of the games of the 9th week of the season and the spreads are those computed for the following week (10).

4. SORT

4.1 Sort_Total

4.2 Sort_Offense

4.3 Sort_Defense

4.4 Sort_Pts+

4.5 Sort_Pts-

4.6 Sort_Percentage

4.7 Sort_Apg+

4.8 Sort_Apg-

Team Rankings are sorted by the current sort field before being displayed. You can

change the sort field via the Sort menu which is enabled only while viewing team rankings. Until you close the Team Rankings window, you can resort the rankings on the field of your choice. All fields are sorted in descending order (most to least), except Pts- (total points scored against a team) and Avg- (average number of points scored against a team) which are sorted in ascending order (the fewer points scored against a team the stronger it is). The current sort field is indicated on the menu by a bullet to the left of the sort field name, and in the view window and printed report by an asterisk to the left of the sort field name. When the data is saved to disk (main-dta.nfl or weekly archive file), it is saved in the last sorted order. When you load main-dta.nfl or a weekly archive file and View team rankings, the saved sort order will be used unless you change the sort order before loading the file.

Division Rankings are always sorted within each division by the percentage field. Category Rankings are sorted within each category. Spreads are not sorted.

A dot is displayed to the left of the chosen sort menu item. Like radio buttons (in a dialog box), only one sort field can be chosen at a time. When you choose another sort field, the dot will be removed from the old choice and placed before the new choice.

5. OPTIONS

The Options menu enables you to set up a number of parameters to make the program more convenient to use and to meet the needs of your computer system. You can change any of the configuration settings while Forecaster is running. The settings are saved in the file forecast.ini which is automatically loaded when Forecaster is run. Forecast.ini must be in your \windows subdirectory for Forecaster to find it.

The options are grouped into several categories: (1) Font, Names, Rows and Cols, Toolbar and Status Line options affect the screen display and printing. (2) Print options affect only printing. (3) Path includes only path. (4) Seasonal includes activities that you need to perform only once-a-year before the season begins.

5.1 Options_Fonts Via the Options/Font menu (which opens a dialog box) you can choose a font (depending upon which fonts you have installed), a font size, a font style (regular, italic and bold), a font color and effects (strikeout and underline). Some fonts are simply not usable; they do not contain numbers (dingbats, for example, does not contain letters or numbers). You can change the font settings at any time (even if a view window is not open). The first time you run Forecaster, a 10-point proportional font is used.

Some fonts, especially under Windows 3.0, can't be mapped to an appropriate size by the font mapper, so it may not be possible to print using a given font. Also, especially under Windows 3.0, your font may be mapped to a different font to fit the size. Use

True Type fonts under Windows 3.1 or later whenever possible.

The current Font settings are used for displaying rankings in the view windows. Since you can scroll the view windows horizontally and vertically, any size font can be used. You may want to use a large point size if your screen is small, if your vision is impaired or if you want to isolate a team or category (you can also resize the view window to do this).

The current Font settings are also used to print the reports and schedule. Forecaster determines whether the entire report will fit on the page (centered horizontally and vertically, with or without a frame) if the current font size is used. If not, it will notify you that it will need to reduce the font size (for example, from 24 point to 12 point) and ask if you still want to print the report. You can answer no and cancel printing or yes and continue. After the report has been printed the original point size is restored (because that is the size you are using to display rankings on screen). So, if you print again, Forecaster will again advise you that the font size must be reduced. You can avoid having Forecaster notify you of a font size reduction and the need to respond to the message by setting Options/Print/Warn when font size is reduced to false.

Some printer drivers (especially for older dot-matrix printers) do not accurately report to Forecaster the size of the page. Usually this results in a wider margin on the right than on the left. You can compensate for this by reducing the font size.

You can change the color of the text in a view window via Options/Font. The background color of the text in the view windows is always the background color you set using Windows Control Panel. No colors are set for printing; the default colors of your printer (usually black and white) are used.

5.2 Options_Names Whenever a reference is made to a team, whether on screen or on a printed report, you can have Forecaster use either the team's name or its geographical name -- Denver or Broncos, Rams or LA Rams. A dot is displayed to the left of the chosen item. Like radio buttons (in a dialog box), only one item can be chosen at a time. When you choose "Use city names," the dot will be removed from "Use team names" and placed before "Use city names."

5.3 Options_Rows & Cols The Rows & Cols option affects how the rankings are displayed in the view windows and how they are printed. However, when printing the Spreads report, Forecaster pays no attention to the Rows & Cols settings.

5.3.1 Options_Rows & Cols_Separate columns with lines Column separators are vertical lines drawn between the various categories of the displayed and printed rankings. Spreads reports have their own column separators which cannot be turned off.

5.3.2 Options_Rows & Cols_Highlight rows Row highlighting in the Spreads, Team Ranking and Category Ranking view windows takes the form of drawing every fourth row in the color you choose for highlighting menu items via Windows Control Panel. In the Division Rankings view window, each division title is highlighted.

Row highlighting on the Team Rankings and Category Rankings reports takes the form of a line drawn beneath every fourth row. A line is drawn beneath the division titles on the Division Rankings report. Spreads reports have their own row highlighting which cannot be turned off.

5.4 Options_Toolbar/Status Line The toolbar and status line are designed to make using NFL Forecaster easier to use. The toolbar gives quick access to seven functions and the status line displays help information for using the menu and toolbar.

Toolbar Each button on the toolbar represents a menu item. From left to right they are: Quick (the rabbit), view the schedule (?vs?), restore windows layout (four exploding windows), open a file (disk and arrow), print (a printer), copy to the clipboard (clipboard and arrow), and the table of contents of Forecaster's on-line help (big question mark).

When the toolbar is turned on or off or moved to the top, left or right, the sizes and positions of the view windows are adjusted accordingly. Some buttons are dimmed to indicate that they are disabled when the functions they invoke are not available. For example, the print button is dimmed until you load a file.

Status Line The status line displays information about each menu item and toolbar button. As you highlight each menu item, the status line explains what the menu item does and why it is disabled (if it is). As you move the mouse cursor over each toolbar button, the status line explains what the button does and why it is disabled (if it is). The status line displays information for all menu items, including the main window system menu (the large horizontal bar in the upper-left corner of the main window) and the view windows system menus (smaller horizontal bars in the upper-left corner of each view window).

When the status line is turned on or off or moved to the top or bottom, the sizes and positions of the view windows are adjusted accordingly. The status line may take the form of a bar or a box. They function identically; there is no reason to choose one over the other except your personal preference.

Redraw Status Line First This option affects the look of the toolbar and status line, not their functionality. When this item is checked, the status line is displayed (drawn) before the toolbar; when it is unchecked, the opposite occurs. When the status line is drawn first, it will appear above the toolbar if they are both placed at the top of the window. If

the toolbar is at the left or right, the status line will span the full width of the main window at the top or bottom.

When the status line is not drawn first, it will appear beneath the toolbar if they are both placed at the top of the window. If the toolbar is at the left or right, the toolbar will span the full height of the main window and the status line will occupy the remaining space between the toolbar and the right or left edge of the window.

5.5 Options_Print The Print options only affect printing.

5.5.1 Options_Print Warn when font size is reduced You can print the reports using any font, size, effect, and style available on your computer system. Each report is centered horizontally and vertically on the page based upon the currently selected font and font size (see the "Fonts" section for more information). If the report will not fit on the page, Forecaster will warn you that it needs to reduce the font size and ask if you want to continue. Since some reports take up more room on a page, you may get a warning for one report (Category Rankings) and not for another (Spreads). You can turn this warning off.

5.5.2 Options_Print_Frame reports Each report can be printed with or without a frame -- a box drawn around the report.

5.5.3 Options_Print_Title of reports You can enter up to 15 characters that will appear at the top left of each printed report -- your name or the date, for example.

5.5.4 Options_Print_Spreads initials You can enter three characters (usually your initials or first name) that will appear at the top of the third column on the Spreads report. In this column you check off whether you picked the correct winners.

5.6 Options_Path Forecaster first looks in the current directory when it needs to load files -- for example, main-dta.nfl and schedule.nfl . If it can't find them, it looks in the various directories you have included in your DOS Path statement (in your autoexec.bat file). If you set Options/Path, Forecaster will use that path first when it looks for files; then it will look in the current directory and then in the DOS Path. It will also use the Options/Path to set the initial directory for File/Open and File/Save As. In general, you do not have to set Options/Path.

If you want to keep the Forecaster data files (schedule.nfl, main-dta.nfl, weekly archive files) in a separate directory (a different one for each year, for example), you should move them to that directory and set Options/Path or your DOS Path statement to that directory; then Forecaster will be able to find them. If you do not have enough environment space (see your DOS manual about setting a Path statement and how much environment space is available), you should use Options/Path.

If you have set Options/Path and want to delete it, just delete all of the characters in the input box and press return; Forecaster will ignore a blank Options/Path. Forecast.ini must be in your \windows directory and the files bwcc.dll and commdlg.dll must be in your \windows\system directory.

Bwcc.dll is a dynamic link library file which contains information needed for displaying the various dialog boxes and must be in your \windows\system directory. It is installed if your system does not have a copy or if your copy is older than the version shipped with Forecaster. Your older version is renamed bwcc.old.

Commdlg.dll is a dynamic link library file which contains information needed for displaying the files and fonts dialog boxes and must be in your \windows\system directory. Commdlg.dll is installed when you install Windows 3.1 or later. It is shipped with NFL Forecaster for users of Windows 3.0. and is installed only if your version is older than the one shipped with Forecaster. Your older version is renamed commdlg.old.

5.7 Options_Seasonal

Forecaster uses game scores, current rankings and accumulated points for and points against to compute new rankings and to calculate point spreads. Thus, at the beginning of each season main-dta.nfl must be modified so that points for and against and average points for and average points against are set to zero. For the program to be useful, the number of wins, losses and ties and the win/loss percentage for each team must also be set to zero. Forecaster's Quick function uses schedule.nfl to prompt you for scores and to calculate point spreads, so a new schedule must be constructed before the new season begins. You can use a word processing program to create a main-dta.nfl file and assign your own rankings to each team (see the section "File Formats"). However, NFL Forecaster provides functions for zeroing main-dta.nfl, creating a new schedule, and displaying or printing the schedule. You can also purchase an annual update disk which contains main-dta.nfl, schedule.nfl and the latest version of NFL Forecaster (see the section "Annual Update Disk").

5.7.1 Options_Seasonal_Schedule There are three seasonal schedule functions; one for viewing the current schedule; one for printing the current schedule; and one for creating a new schedule.

5.7.1.1 Options_Seasonal_Schedule_View schedule When you choose this menu item, a modal dialog box opens and the current schedule (schedule.nfl) is displayed in a list box. Use the keyboard or mouse to scroll through it.

5.7.1.2 Options_Seasonal_Print Schedule The current schedule (schedule.nfl) is printed six weeks to a page (three pages). As with the printed reports, the schedule will

be centered on the pages based upon the current font and you will be notified if the font size must be reduced to fit the schedule on the page (if you have checked Options/Warn when font size is reduced). The printed schedule may be framed. Options/Print/Title, and Options/Rows and cols are ignored when the schedule is being printed. If you press the "Cancel" button while the schedule is being printed, the current page is completed and then printing is canceled.

5.7.1.3 Options_Seasonal_Create new schedule If you purchase an annual update disk, you do not have to create a new schedule yourself. This function opens a dialog box similar to the one used by Slow/Forecast Spreads. You use it to indicate which two teams play in every game of the new season. After you choose two teams, press the "Game OK" button. You will be asked to confirm that the choices are correct. You also will be asked to confirm that the choices are correct after each week's schedule has been entered. You cannot selectively make corrections; that is, you cannot go back and fix game three of week seven or game eleven of week twelve. You must make corrections immediately or a week at a time. If a week has 14 games, Forecaster will know when an entire week's games have been entered. If a week has less than 14 games, press the "Week OK" button.

If you press the "Cancel" button, Forecaster will ask you to confirm that you want to stop. Although this function makes creating a new schedule.nfl file quite easy, there is still a substantial amount of work involved. You cannot save a partial schedule and resume work at a later time; thus, the choice to cancel should not be taken lightly.

When you create a new schedule, schedule.nfl is renamed to schedule.old. If schedule.old exists, it is overwritten. To save each year's schedule, rename it before you choose Options/Seasonal/Schedule/Create new schedule (for example, schedule.93).

Note: This function helps you create a 17-week schedule for 28 teams. If the NFL changes the length of the season or increases the number of teams, this function cannot be used to create a new schedule. For many years the NFL season was 14 weeks long and later 16 weeks. Then for 3 years it was 17 weeks and last season it was 18 weeks. This season they have gone back to a 17-week season. Even if the NFL stays with a 17-week season next year (95-96), two new teams are supposed to join the league. Therefore, it is highly unlikely that you will be able to use this function to create a new schedule. However, the annual update disk contains a new main-dta.nfl file, a new schedule.nfl file and the latest version of NFL Forecaster. When you register Forecaster, you receive a coupon worth 25% off the price of your first update disk. So you can upgrade for next season for \$5.25. If the NFL keeps the schedule at 17 weeks after the 95-96 season, you will not need to purchase an update disk.

5.7.2 Options_Seasonal_Zero main-dta.nfl You need to zero main-dta.nfl only

once a year before the new season begins. If

Note: This function helps you create a 17-week schedule for 28 teams. If the NFL changes the length of the season or increases the number of teams, this function cannot be used to create a new schedule. For many years the NFL season was 14 weeks long and later 16 weeks. Then for 3 years it was 17 weeks and last season it was 18 weeks. This season they have gone back to a 17-week season. Even if the NFL stays with a 17-week season next year (95-96), two new teams are supposed to join the league. Therefore, it is highly unlikely that you will be able to use this function to create a new schedule. However, the annual update disk contains a new main-dta.nfl file, a new schedule.nfl file and the latest version of NFL Forecaster. When you register Forecaster, you receive a coupon worth 25% off the price of your first update disk. So you can upgrade for next season for \$5.25. If the NFL keeps the schedule at 17 weeks after the 95-96 season, you will not need to purchase an update disk.

If you purchase an annual update disk, you do not have to zero main-dta.nfl. This utility prepares a new main-dta.nfl file for a new season. It takes the data from one file (usually main-dta.nfl), modifies it and saves it as main-dta.nfl. The number of points scored by a team and scored against a team, the average number of points scored by a team and scored against a team, the number of wins, losses and ties, and the win/loss percentage must be set to zero, since at the beginning of a new season no team has scored any points or won any games.

You will be asked for the name of the source file you want to use to create the updated main-dta.nfl. Since Forecaster is used through the playoffs and Super Bowl, the rankings contained in main-dta.nfl at the end of a season are a bit distorted because only some teams play in the playoffs. Thus, most users choose to use the weekly archive file from the last week of the previous season as the source file. In this case it is best to rename main-dta.nfl to postbowl.yy (for example, postbowl.92) before using main-dta.nfl update. Then you will have an archive data file of the rankings after the last week of the season and another of the rankings after the Super Bowl. If you use main-dta.nfl as the source file, it is renamed to main-dta.old and the new data is saved as main-dta.nfl.

You have two choices when updating main-dta.nfl for the new season: you can **Keep** (carry over) the sum, offense and defense rankings or you can give each team an equal and **Average** sum, offense and defense ranking.

Keep sets the points for, points against, win, loss, tie, and win/loss percentage categories to zero. The sum, offense and defense rankings are carried over (kept). Usually you will want to carry over the old rankings because despite the draft and other activities intended to produce parity, the NFL teams do not start each season as equals.

Average sets the points for, points against, win, loss, tie, and win/loss percentage categories to zero. The sum, offense and defense rankings of every team are set to an

average value (sum = 100; offense = 101; defense = 99). Because the rankings are all equal, all of the games for the first week of the season will be declared Even. Most users do not use this function, but you might want to see how the rankings would work out IF the season began with parity among the NFL teams.

NOTE: Two new teams are supposed to join the NFL next year. Therefore, the format of main-dta.nfl will change and this function will not work. See the note at 5.7.1.3

5.8 Options_Save options When you choose Options/Save, the current values for all of the options are saved to forecast.ini. The options saved and their values when you first run Forecaster are:

- the path to the data files (none);
- whether you want to use team or city names (city);
- whether you want column separators (no);
- whether you want row highlighting (yes);
- the current font name (Courier);
- the current font size (10);
- the current font weight (normal);
- whether italics, underline or strikeout are in effect (none);
- the text color (black);
- whether the font-size-reduction warning is in effect (yes);
- whether reports should be framed (yes);
- which reports should be printed (all);
- the reports title (94-95 v. 3.0w);
- spreads report initials (YOU).
- toolbar position (top)
- status line style and position (box at the bottom)
- whether to redraw the status line first (yes).

Options are not automatically saved when you quit Forecaster; therefore, you can experiment without changing the settings in forecast.ini which aren't changed until you select Save from the Options menu. Also contained in forecast.ini are NFL Average Points per Game, Views Layout, and the reports that you have checked in the Print/Reports dialog box (see the appropriate sections for more information).

6. SLOW

Slow enables you to manually pick the teams to forecast spreads for and to manually enter scores. Generally, you should not have to use Slow. **There are only two occasions when you have to use Slow.**

First, you must use Slow/Forecast Spreads and Slow/Enter Scores for playoff games because Quick uses the schedule.nfl file to prompt you for scores and forecast spreads

and the playoff teams are unknown at the beginning of the season when the schedule file is created.

Second, it is necessary to enter scores and forecast spreads via Slow when there is a disruption of the NFL schedule as happened in 92-93 when a hurricane caused the Miami-New England game to be postponed for several weeks. In that case, you could not use Quick to enter the scores for the first week because there was no score for the Miami-New England game. Further, during the week when the postponed game was played, Quick would not forecast spreads for the Miami-New England game because it was not on the schedule. If you have to use Slow because there is a disruption of the NFL schedule, be sure to save the data to disk since the new rankings will be the result of actual games. Save both main-dta.nfl and a weekly archive file (Quick normally does this for you). See the sections "File/Open" and "File/Save As" for information about loading and saving files.

Except in these two cases, you should not use Slow. If you do use it to "play around" and enter scores, be sure not to save data to disk (the rankings will not reflect the scores of actual games). It is crucial that you obtain forecasts for next week's games only AFTER you have entered last week's scores (and, therefore, have updated the rankings). Otherwise, the forecasts will be based on last week's rankings. This is not a problem if you use Quick, but you must remember to do this in the proper order if you use Slow: Enter the scores and then Forecast the spreads.

6.1 Slow_Enter Scores In order to use Slow to Enter scores, you must first load a file -- either main-dta.nfl or a weekly archive file -- because new rankings are based upon current rankings (which are contained in a disk file).

The Enter Scores dialog box displays the teams by conference and division in six columns. Using the mouse or keyboard, choose the teams that played in last week's games and enter the appropriate scores. You can choose teams and enter scores in any order: pick team, enter score, pick team, enter score; or pick team, pick team, enter score, enter score; or enter score, pick team, enter score, pick team; etc.

A score of twenty-one will be highlighted in the combo box where you enter the scores. Acceptable scores range from 0 to 98 (see the "Miscellaneous" section). When the teams and scores are correct, press the "Enter" button. Forecaster will prompt you to confirm that the teams and scores are correct and if you answer yes it will display them in the lower part of the screen. If you answer no, you can reenter the teams and/or scores. When you have entered all scores for all of the games, press the "Done" button. Forecaster will immediately update the rankings based upon the new scores. You can press the "Cancel" button at anytime to cancel Slow/Enter Scores and throw away any scores entered so far.

Forecaster will not allow you to choose a team to play itself. After you confirm that the teams and scores are correct for each game, Forecaster will remove the team names from the list box. This prevents you from accidentally entering a team twice. When the scores for fourteen games have been entered (the maximum number), Forecaster will automatically close the dialog box. See also the relevant sections for viewing and printing the rankings and spreads.

If you make a mistake entering scores, and do not catch the mistake when Forecaster prompts you to confirm the scores, press the "Cancel" button. Do not save the data. Then reload the file and reenter the scores.

6.2 Slow_Forecast Spreads In order to forecast spreads, you must first load a file -- either main-dta.nfl or a weekly archive file -- because spreads are based upon current rankings (which are contained in a disk file).

The Forecast Spreads dialog box displays the teams by conference and division in six columns. Using the mouse or keyboard, choose the teams that will play in the upcoming games. Then press the "Forecast" button and Forecaster will display the winner of the game and the winning point spread at the lower part of the screen. When you have obtained forecasts for all of the games of the next week, press the "Done" button. You can press the "Cancel" button at anytime to cancel Slow/Forecast Spreads and throw away any spreads you have obtained so far.

Forecaster will not allow you to choose a team to play itself; it will, however, allow you to choose the same team more than once. Thus, you can test your favorite team against other teams in hypothetical games. When sixteen forecasts have been computed (the maximum number), Forecaster will automatically close the dialog box. See also the relevant sections for Viewing and Printing spreads.

7. Window

Cascade causes all open View windows to resize and overlap each other.

Tile causes all open View windows to be resized and moved until they all fit side-by-side on the screen.

Close all closes all open View windows.

Close a particular View window by pressing Alt-hyphen to open the system menu (or click on the system menu box at the top left of the window) and then choosing "Close."

As you open View windows, the title of each is added to the bottom of the Window menu.

You can use the Window menu to switch to a particular View window by choosing it from the menu. You can **switch** from one View window to another in order by pressing Ctrl-F6 or Ctrl-Tab. You can also **switch** View windows by pressing Alt-hyphen to open the system menu (or click on the system menu box at the top left of the window) and then choosing "Switch."

8. Help

The file forecast.hlp must be in your Forecaster directory in order to access on-line help.

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