HTR Monthly Report

Thoroughbred Handicapping Newsletter
January 2007

Brought to you by –
KM Software
Handicapping **T**echnology and **R**esearch

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The HTR Monthly Report is converted from a Microsoft Word Document to a *.PDF* file for viewing with the free Adobe Reader. The newsletter may be viewed while on-line or the file can be downloaded to your computer hard-drive for off-line reading and printing.

Each month, the current edition of the HTR Monthly Report is available on the Internet from our members' web site only. This is not a free newsletter; it is included as part of a paid subscription to HTR's monthly download service ($119/mo). Selected articles can be found on the free HTR web site (see back page for web address). The HTR Monthly Report is normally available by the 5th of each month.

Handicapping with HTR2

HTR 2007

Happy 2007, let's hope this is a big year for you. The preceding 12-months was a turning point for many successful HTR subscribers and there was an interesting connection between them. Without exception, they had accepted the changing realities of the game. The conventional approaches, particularly speed figures/positive form-cycle and class/earnings hierarchies are no longer producing profits in the modern arena of horse betting. Mechanical methods lose their edge quickly – there are thousands of determined researchers pouring over a relatively limited quantity of yearly data looking for an easy system. Winning bettors will use a variety of tools and remain flexible ➔

- Trainer assessment has become critical in the era of the "super trainer". Every winning horseplayer recognizes that drug proliferation is a real and unfortunate aspect to the game. We all loathe the idea that performance-enhancing supplements are playing a major role in the outcome of races, but it is a fact of life now. We have an instant ID for the *supers* (TRN>400) and they will not elude us. The TPG rating is another revealing trainer tool that reveals race specific patterns without having to spend time trying to sift through the statistics.

- Pedigree analysis is no longer an obscure area of handicapping confined to bloodline experts. We can quantify it accurately and it is essential to understanding potential and rapid improvement. The PED rating in HTR is probably the most successful algorithm I have ever devised because it shakes out the mystery and ambiguity of breeding. We can also test it right along side of our other ratings seamlessly, a major achievement that leaves most of the betting public far behind.

- The analysis of workouts is something that is very difficult for most horseplayers to grasp. It's complicated to evaluate without a great deal of scrutiny. We have a major time saving edge with our workout rating (Wk) and it is unlikely that a manual handicapper could ever approach our results with those huge Wk "bombs" that run big every week.

- Pace and velocity handicapping has made a strong comeback among horseplayers that have grown weary of the disappointing results they get with speed figures. While the profits with early pace factors such as Fr1 have definitely diminished as well, there is so much more to the art and science of pace/velocity analysis that remains as unknown and too complex for most. (Read more with the *Maximum Velocity* software in this issue).

- Changes such as "blinkers on" or "1st time lasix" are so obvious they no longer produce very many profitable winning situations. But the bettors tend *not* to over bet other key changes such as *blinkers off, first time gelding* and non-claiming trainer changes. Even jockey switches can yield results. We emphasize changes in HTR and the PPX screen is entirely devoted to that end. Anything you can pick up consistently, that others don't see, is an edge.

- Our name HTR = Handicapping Technology & Research, wasn't a casual acronym. We knew the niche for this group would be research and testing and the time saving alone would be a major edge. Luck is replaced by knowledge with the feedback from researching and reviewing data.

- By the end of 2007, there will be at least a dozen major tracks using the Poly or artificial surfaces. Arlington, Del Mar and Santa Anita are among the elite tracks scheduled for the change in 2007. This has thrown an unwanted monkey wrench into the lives of many conventional handicappers. Most will have to start over and update their par charts, variants and ratings from day one of the new installation. The Poly is an opportunity for HTR players who do their homework -- research will always uncover winning patterns.

Year in Review

Best of HTR 2006

All the results are in for the year 2006. I sifted through all the 57,000 or so recognized races from 2006 to find the high payoffs and other interesting winners from HTR2 ➔

K Rating Overlays of the Year

While there were a few top (K) that paid more last year, the K=1 $40 winner in the 8th at Sunland Park on February 11 was a massive overlay. Aside from the K=1 and KLine= 3.3, the 19/1 winner had a standout super trainer (TRN = 429) and was a FR1= 1. Gift horse!

The actual high pay K=1 for the year occurred at Great Lakes Downs on October 11 in the 1st race (purse $6600) and paid $97. It was a wet track and somewhat of a reach. But GLD has produced some ridiculous K=1 payoffs over the years.

The top K=2 payoff took place at Thistledown (TDN) on September 30 in the 5th race, another wet track, but this one was Fr1=1 also and paid a whopping $176 (80/1) from a KLine = 7.0, so technically this was the most outrageous overlay of the year. The horse had a jockey that had never won before, otherwise it probably would have been a K=1.

Top PED Monster Payoff of the Year

This one was an obvious pick as several HTR players hit it during the Orleans Fall Championship tournament on October 5th. I also got email from a couple of people that bet it with cash. The FTS at Santa Anita in race-5 had the top ranked PED > 450 as well as a good FT rating = 55 that was best in the field. But even the owner must not have liked him as the odds were 99/1 on the board and the winner paid a massive $215. More than 1,000 PED> 450 horses won and paid over $20 during 2006 !!

Wk Bombs and $$ Best of the Year

As with the PED, there were hundreds of fat payoffs with the top rank 85+ workout ratings last year. The best one may have occurred at Churchill on June 17 in race-10. With a Wk=91 he paid $185, but amazingly he was not the top Wk number in the race. A more obvious workout bomb hit on October 29 at Hoosier Park. The race-10 winner paid $182 with Wk=86+ and was easily the top ranking. Both of these 90/1 shots were also $$ plays.

Top Jockey/Trainers Play of the Year

It is extremely rare for the top rated rider in the race to win at more than 50/1, but it happened on Feb 5 at Gulfstream when Manny Cruz (JKY = 367) rode *Universal Form* to victory in the 7-horse field and paid $108. That was the highest payoff all year for JKY =1.

Coincidentally the same day at *Magna* sister track Santa Anita, trainer Neil French put over the highest price of the year for a "super trainer"(TRN >= 400) paying $88 in the 4th race.

$20+ Winners --Top HTR Ranks.

I tallied all the winners that paid $20 or more in 2006 and made a list of the rank=1 factors below. Note that these were the factors that normally have a single horse with the top ranking per race. Wk 80+ and PED 450+ would easily win this contest if added to the list, but that isn't fair because they often have multiple entrants per race. The result was very close, but the PED=1 gets the nod by just one winner. Keep in mind that list is also not fair in terms of impact vs. opportunity; factors like K=1 and HTR=1 seldom have horses with odds above 9/1, yet they win a healthier percentage of those chances.

All Recognized Races 2006 Top Rankings

Factor	$20+ Winning Hits 2006
PED=1	885
WK=1	884
Fr1=1	805
Fr2=1	760
Fr3=1	757
PAC=1	740
L/P=1	708
E/P=1	669

Tournament News

The Year-End Championship Tourneys

The on-line HTR Newsletter archive is a one-of-a-kind resource for tournament information and results thanks to the on-the-scene accounts from our members. DRF.com also has a good archive of records and news articles for the entire 7-years of National Handicapping Championship (NHC). From these two sources we can draw the information below with the target points needed to cash at the HWS (Horseplayer World Series): Jan 18-20 and the NHC: Jan 27-28. If you want to review the action as it happened to our players, read the February newsletter issues each year in the *HTR Library* archives.

It looks like this will be our most popular year for HTR subscribers involved in the championship contests. I have lost count but there are at least 20 of us that have qualified for one or both contests and another dozen will probably pay the $1000 entry fee and compete in the HWS. Last year, Mel Moser & Co., finished 3rd in the NHC, and Ronnie Hopkins grabbed 4th in the HWS. But that was just the beginning of a tremendous tournament year for HTR players that saw top-5 finishes in nearly every major contest including a 1-2 finish at the *Gold Coast Championship*.

Tournament Points and Achievable Goals

The typical starting point for most tournament players is to look at the previous top contest scores and attempt to target their play to cover the required number of points. Below are the specs for each contest and then a table showing some basic scoring totals.

Contest	Days	Plays	Format	Cap	Target Points
WSH	3	33	$20 WP	$40/$20**	3000
NHC	2	30*	$2 WP	$42/$22	250

* 15 Mandatory Races
** First $2 is paid at full odds, so the cap is 90%

These "target point" totals above are often more than necessary to win. But depending on the quantity of 'cap' horses during the contest, they have been exceeded. In any case, they are a logical standard to begin your strategy session. Next table shows points achieved with various sized win/place payoffs. Notice that even if you hit 50% winners at $10/$5 level, you would not get enough points to win the contest.

Contest	Payoff WP	Points
WSH	$10 / $5	150
NHC	$10 / $5	15
WSH	$20 / $10	300
NHC	$20 / $10	30
WSH	$40 / $15	550
NHC	$40 / $15	55
WSH	$70 / $30	730*
NHC	$70 / $30	64**

* Includes Cap+10% Full Pay ** Maximum possible points

The January 2006 newsletter – http://www.homebased2.com/km/pdf/HTRMonthlyReport-JAN2006.pdf had a good summary of strategy tips for both tourneys and is worth reviewing. Bottom line is that you are typically going to have to hit something big in the first half of the tournament to get into position to win. At the *NHC*, that means getting to at least 100 points by the end of the first day, otherwise it is a near impossible task to score more than 150 on the second day. At the *HWS*, 1000 points per day is a nice goal, but realistically, most winners of the tournament have one huge day that doubles the other two.

Falling behind doesn't mean it is panic time either. Dozens of our regular players have swung their momentum late in a Vegas contests to make the top-20 in the standings. In fact, that is a worthwhile strategy in itself – hold bullets until late in the day – wait until your opponents are tired and spent – then catch a bomb when few others aren't looking - *that's my MO – see you in Vegas*!

HTR2 Update

What's New in HTR2 2007 ?

The yearly update to HTR2.EXE should be available as you read this.
Here are the changes and additions.

General Program

Minor adjustments to the track-class and race pars (EPR) for 2007.
Revised the $ and $$ parameters. $ = alert to possible price play; $$ = double strength longshot.
Updated Trainer (text), TPG and Poly Track records with new data from HDW.

Update PPX = OUT Quick PPX = IN

2006 versions of HTR2 had a (non-working) large button at the bottom titled [Update PPX]. Now it is changed to [Quick PPX] – and this one works great! See the full explanation on page-7.

Delete Files

Will rotate automatically to the next race after you delete. Speeds up the process and less frustration when there are cancelled races to remove. *Thanks to MikeDee for his suggestion on this one*.

Robot

Connections box adds Sire

Now the drop-down "Connections" box displays the names of the Jockeys (J), Sires (S) and Trainers (T) for the current race. The ( ) keeps the list organized by separating the three types of connections and you can find them easily. Adding the Sire here was done primarily with the Poly tracks in mind, but there are many other uses including testing the Sire at more specific track/distance/surface parameters; but your best bet is test the Sire with LEARN ALL and find out directly how he performs in dozens of categories.

Item Filters

Several new filters added =

- **Bad Fav (BF):** This extracts or filters the *Bad Favorites*. See page 6 for more information.
- **2TS:** Second Time Starter, a great source of overlays.
- **3TS:** Third Time Starter. A rarely considered angle; surprising results with lightly raced horses. Statistics prove than near 100% of all 2TS and 3TS will improve.
- **FIG2=1**: From FIG2 screen – the projected top figure - (shown with [ ]* in the horse header). Try testing it with various other ratings and see if they improve.

Within HTR2, the "BF", "2TS" and "3TS" are shown only on the KM screen. The "FIG2=1" is shown only on the FIG2 screen – look at the header line for each horse, example: [18]* is the top projected rating. All these new items are shown in green on the Robot filter screen.

The **PAC Top** and **PER Top** items have been revised to restrict them to horses with at least 3 lifetime starts. Previously this was set to 2 lifetime starts and picked up too many lightly raced types that improved by default. So give this one another chance and perhaps limit the test to the various age groups during your research. These are shown in yellow on the Robot filter area, as are the **$** and **$$** as they have been revised as well.

Export

No direct changes to the Export fields. You can re-export if you want to ensure you have 100% of the latest output from the upgraded version.

File Naming for Single Date Exports has changed. If you export with the "Single Day" option, the file name will now include the day + month such as **GP_10JAN_HX4.TXT** or **AQU_22MAR_HX5.TXT**. This longer file name is the only change; data remains the same in all cases. The longer name might help to find or organize the daily files.

Handicapping with HT2 (2007)

Bad Favorites ("BF")

Title above reminds of that wild movie "Bad Santa", but in this case we are not concerned with bad behavior of the chalk, just looking to beat them. In the past we have had similar designations in HTR and I got some unkind email about it when the designated beatable favorites won. The item returns, but in limited portions and its primary purpose is to allow the user to extract them on their own from the Robot.

Let's keep in mind the important aspect about "bad favorites" ➔

- They are BAD BETS, *not* bad horses.

If I offer to sell you my Honda for $100,000, it is in perfect condition, would you buy it? Of course not, that would be a terrible value. There is nothing wrong with the car and it runs great, but the price is outrageous. Similarly, a 3/5 shot may well be in sound condition and ready to run and have the best figures, etc., but we have statistics that show huge losses for that type of runner in the long run and it is better to try and beat them – we know they are vulnerable for one or more reasons if the "BF" is showing.

Another horse still has to beat the favorite and the "BF" is not an automatic loser. I ran tons of tests and was able to push the "bad favorite" stats down below 21% winners (see below). That is improved over results we had in the past with the rate around 25%. But the important stat is the ROI with a -32% loss for every dollar wagered. That is excellent "chalk-busting" considering every one of these horses is low odds and many of them go off below 2/1.

The "BF" or bad favorite is now shown on the KM Screen (only) and can be found in the *Robot*. I purposely did not add the item to the other screens, especially the *Program Screen* because of past complaints when they won. So you'll have to look for them. Export users, I will add the item to the HX4 this summer, I did not want to add one item to the HX4 and require everyone to have to redo all their data.

Will you get confused when looking at "HF" or "BF" on the screen? Not a problem - the **HF** is always K=1, but the **BF** can *never* rank higher than K=2. And don't confuse with "beaten favorite" – those are horses that were favorites in their last start and lost.

- The "BF" is always a MLO favorite today at odds of 5/2 or less and *never* K=1.

Coupled entries (i.e. 1 and 1A), if favored, <u>are ignored</u> when the "BF" processes. It would be extremely rare that both of halves of the coupling would be designated "BF", so it is better not to designate one half of the entry as a "bad favorite" in case the other half is a strong contender. This is also necessary for accurate testing in the *Robot* – if one horse in of the coupled entry was designated as "BF", but the other horse won the race, it would be a 'false positive' for the factor.

The "BF" has many uses, but perhaps the best is to toss the MLO pick out of the DD, p3, p4 and shoot for a bigger payout. The public uses these low ML favorites without a second thought. Tournament players will want to print the list and perhaps focus on the races with low Vi combined with a beatable underlay favorite. Value bets are common when the chalk is hammered; the "BF" can never by a K=1, so there is often value on the K1 as well if it does not go favored.

BTW: I have removed the **XF** designation from most of the visual screens in HTR2, as it is not very useful. Use **K110** or **HF** to seek out high percentage favorites.

Here are the stats on the "BF" horses (if Purse $10,000+ for 2006); you can test them yourself with further parameters in the *Robot*.

Plays = **2,865**	This represents about 1 in 12 ML favorites, so plays are plentiful daily.
Win = **21%**	Normal win rate = 30-35% for these horses, so this is a wipeout as 79% lose.
ROI = **0.68**	Identifies many low odds losers.
Pla = **39%**	About 61% will *not* make the exacta.
ITM = **54%**	Despite their low odds, the "BF" chalk will finish off the board nearly half the time.

Handicapping with HT2 (2007)

Update PPX → Quick PPX

It wasn't for lack of effort that the [Update PPX] never came about. You may have noticed the button at the bottom of your HTR2 screen with 2006 versions. If you clicked it = "Under Construction" popped up. The idea was to create a database file with the key PP stats for faster processing of the PPX screen and to replace all the files in the folder with a single db file. In the end I determined it was of no value in terms of time saving or efficiency.

I was able to complete the PPX database function but after working with it awhile decided against using it in the software =

- Updating the PPX data took quite a long time because it had to check for duplicates. As the database file ballooned with more and more horses, the process took ever longer. Users would have become tired of this and concerned with a massive file that could not be manipulated easily.

- It would have been necessary to update about every 4 or 5 days to keep the PPX db up-to-date. That was something that most of us would have resisted and become weary of. With the current method of PPX, that extracts the data direct from the previous files; all it took from the user was the daily effortless task of downloading results.

- Most HTR2 users already have to retain quite a few files in their work folders to use the *Robot*. These are the same files used to extract the PPX data currently. So the [Update PPX] process would not do anything to save file space for most researchers.

All in all, I didn't see a lot of benefit to the database approach. Instead I decided to switch to quicker PPX that would succinctly outline changes going on in the current race. It is a nifty screen that gives you some rapid insights into the race – and works faster than the regular PPX because it only seeks the most recent start for each horse.

Quick PPX (Changes)

The button is located at the bottom of the main screen in HTR2. Click it on any race and it extracts each horse's current information with a second line for instant comparison. You'll have quick access to noting the following the changes ➔

- First time gelding.
- Blinkers and Lasix Change and if front wraps were worn last time.
- Shippers and track switch.
- Distance change.
- Surface change.
- Class up or down and strength of last race vs. today's level.
- Jockey switch and the amount of JKY rating change.
- Trainer switch and the amount of TRN rating change.
- PED difference from last, particularly if changing dist/surf.
- Wk score change from last.
- PER last time and the estimated PER for today (same as FIG2 projected speed).
- Additional insights such as $, $$ and "2TS", "3TS" information.

Read the next page for a complete item-by-item explanation.

You'll notice there are no rankings on the Quick PPX screen. This was done on purpose. Using this screen you can spend some time the night before handicapping without worrying about the eventual mix of horses in the race and how it might affect the final ranks. Use Quick-PPX to take early notes on changes and evaluate possible improvement or decline. If scratches happen, it won't disturb the facts on this screen. A jockey change, surface switch, or a scratch to the favorite can obviously unsettle some of the items listed. The race VI and horse flags: "HF", "$" and "$$" can be altered with scratches.

Handicapping with HT2 (2007)

Quick PPX Output

The Quick PPX screen has just two lines per horse. The top line is the information for today's race; the second line reveals their info and ratings from the last start. This approach allows us to quickly review important changes for each horse and recognize possible improvement or decline. The good news about this screen is that you can use it early to handicap, prior to scratches, because late changes will not alter most of the items.

Here is the first part of a *Quick PPX* line for a fictional horse. Notice how I handicap the horse below.

```
1A SuperJ 3g  5/1  L2 b     056 TAM   8.5D  Msw 094  Moore 293 + Smith 336
-------------------------------------------------------------------------
          3c *1.8  L1 b fw  189 CRC   6.0W  M40 092 cJones 189   Meyer 209
```

This horse "Super J" is 3 year old gelding ("3g") and we know from looking at the previous start that he has been gelded since the last run ("3c") – a possible improvement factor. His MLO today is 5/1. Last time he ran his final tote odds were 1.8 (9/5) and he was the favorite (*). The horse wore blinkers and front wraps ("fw") last time - this is only and indication that he definitely wore wraps last out; wraps info from the tracks and Equibase is not accurate enough to make any other assumptions such as "first time front wraps" – but you can watch the post-parade and see if they come off.

Our horse has been off for 56 days ("056" = Layoff), and last time he had been off 189 days prior to that start. Note that the second layoff line lists the actual layoff the horse faced in its last start, not the number of days ago the race took place. His previous start was at CRC; today's race is at TAM; he is a shipper. The last start was a race of 6.0f, today is 8.5D, so it is a route to sprint play (note the PED change below). Today's race is a Msw with an EPR (par) = 094; last time the horse faced maiden claimers ("M40") and the rating for the race was 092, so the class change is not major, but he is up a little.

Trainer last time was "Jones" and we was rated a weak 189, but Jones had the horse claimed from him ("c") and the new trainer is "Moore" with a much higher rating of 293. The jockey last time "Meyer" rated 209, today is a top rider rated = 336. So clearly the trainer/jockey situation is a big improvement. Note the (+) that is shown between today's jockey and trainer, that indicates a strong trainer + jockey combo (20% or higher win rate). A (+) sign right after the trainer name is the "super trainer" indicator, and a (+) right in front of the jockey name is the "super jockey" indicator. So you might see "+++" on that line indicating "super connections".

```
#PED 491+(57)  #WK 87+    [095] 3TS $$ Early   09
     370           77  3RD 090  carried wide   07
```

The "#" indicates the pedigree (PED) has a categorical change. In this case, as noted above the horse is moving from sprint to route. The PED = 491 vs. 370 last out indicates this horse is better suited for the dirt route than the sprint. Also, his FT (first time route in this case) = 57. A number in ( ) after the PED rating, is the FT number. The "#" prefixing the "Wk" means the horse has had workouts since the last start. If there is no # shown, then the horse has not worked since the last race and its Wk rating may be getting stale. The work rating has increased from 77 to a strong 87 today – solid.

The "3rd" shown on the second line lets us know the horse finished 3rd last out and ran a 090 PER rating. The [95] above is the Projected PER, same rating as found on the FIG2 screen headers, but this time translated to PER style figure. The bottom line has the trip note and field size (07).

The top line, far right, has some notes, such as $, $$, HF, BF, 2TS (second time starter), 3TS, etc. An "XTS" will flag a horse that is a chronic loser in maiden races. The '09' is the field size today. The items in this paragraph are the only ones subject to change according to scratches.

Summary

Here we have a young horse in a new (and winning) barn, just gelded and stretching out to a distance that favors his pedigree. His works are excellent and the jockey switch positive. Plethora of clues to indicate dramatic improvement is likely here. Peruse the PPX column by column, don't miss anything, other players will pay attention if you don't.

MAXVEL Software User Guide

Maximum Velocity Software (MAXVEL) – Installation and Introduction

A new year 2007 brings a resolute set of tools for HTR subscribers. Brand new original software is titled *Maximum Velocity*, accessed with MAXVEL.EXE file. The new program is run separately from HTR2, but uses the same download files. If you have HTR2 already running on your computer, MAXVEL will be no problem to install. Just SAVE the .exe file to your HTR folder and create a new shortcut on your Windows screen. MAXVEL has an icon that looks like a high-tech graph.

You can download MAXVEL now from our website, click on the link and then click SAVE. Be sure the destination folder is **C:\HTR** at first, but the software will run from any folder or drive.

MAXVEL was designed to increase the focus on the running line aspects of the past-performances. The main screen shows two panels in view at all times. The top one has the velocity information along with all the factors that are affected by changes to running line selection. The bottom panel has the past-performances shown one horse at a time.

Features are summarized below ➔

- Highly interactive, lots of button clicking, a laboratory for velocity and pace handicapping.
- User will spend more time on individual horse analysis.
- Greater latitude (ease of use) to inspect every running line per horse.
- Total flexibility over the sorting of the factors, including VEL, (K) and HTR Consensus.
- Highlight-bar placement on the velocity screen has three options for stable viewing.
- An optional variant alternative (VAR2) that does *not* use class pars or speed figure variants.
- New PL modes and an easy method to access all of them quickly.
- Unique modeling for pattern and bias recognition with any race type and current races.

Although it was built on the basic frame of the HTR2 software and the *Robot*, MAXVEL was designed to be a quicker application. The concept was to allow the user to move fast and furious through these normally tedious handicapping methods and have the ability to research rapidly.

MAXVEL Software User Guide

MAXVEL – Main Screen Operation (Top)

The initial load screen for MAXVEL is the same as HTR2. The same initial options are available such as Download and Time Zone screens. Click the "eye" as usual to enter. Files are unzipped as necessary and listed at the top in the same manner as HTR2.

MAXVEL Main Screen

The screen has two separate panels →

Top or Upper Screen = Data, velocity, rankings, projected times, etc.
Bottom or Lower Screen = Single horse interaction

Top Section Buttons

[V1]
This is the default top view screen. It shows the complete feet-per-second (fps) ratings, early energy%, as well as the PAC-PER, (K) and HTR. These latter four ratings are also affected when the user changes the running lines from the bottom section. What happened to PED, Wk, TRN and JKY ratings? MAXVEL is a *paceline-driven* application and the intangible ratings are not affected by a change to the line selection. Those items are found in the PP headers and the Program Screen (PRGM) if you need to look at them while working in MAXVEL. Do you need some background or a primer on velocity fps ratings? No need for me to re-write the best text on the subject:- Modern Pace Handicapping by Tom Brohamer available on-line at Amazon.com.

[V2]
Click this button to view the Projected Times chart. This screen takes the fps ratings and divides them into the fractional distance segments for today's race. Approximate times and lengths behind are displayed. You can use this screen to inspect a horse's entire history line by line and assess how fast he projects to run each of his past races today.

[V3]
Complete rankings are shown on this screen. This display also lists all the horses in the race, even first time starters (FTS). The V1 and V2 screens do not display horses that have no running lines selected.

[VAR1]
This is the default option for variant adjustments to the output. Includes projected daily track variant and speed adjustments as provided by Jim Cramer at HDW -- same as used in HTR2 – enables comparison of the numbers across all class levels and race types.

[VAR2]
This option eliminates the daily track variant and minimizes the adjustments to distance and surface equalization only. It should be used to compare the current field on its own; the numbers are not applicable to all other horses outside of the current race. This option has *not* been tested; it is offered for your observation and modeling. One good use of VAR2 is to change the projected times on the [V2] screen, perhaps making them look more realistic and thus the entire race analysis may be improved.

Sort Buttons [PP] ---- [HTR]
These buttons will instantly resort the screen to the factor or column desired. The horse with highest rating will move to the top and all the others follow in order. Early energy% is sorted by highest (see more on energy later in this text). Allows unlimited assessment of the factors in view.

[H1]
Holds the highlight bar on the top header, keeping it out of the way if desired.
[H2]
Holds the highlight bar on the top ranked horse in the selected sort category.
[H3]
Keeps the highlight bar focused on the current horse in view (see bottom section operation) no matter where he ranks in the mix.

MAXVEL Software User Guide

MAXVEL – Main Screen Operation (Bottom)

The bottom section of the screen displays a single horse at a time.

[PPQ] [FPS] [FIG2]
Past-performances screen choices for viewing the running lines for each horse. Same basic screens found in HTR2.

[Previous]
Toggles to display the previous horse in field order.

[Next]
Toggles to show the next horse in order.

[Cycle PLs]
Clicking this button toggles through each of the PL modes one at a time.

[PL-0] – [PL-8]
Individually select the PL mode. There is more information to read on the details and methodology for each of the PL methods later in this text.

A key feature in MAXVEL is the ability to rapidly roll through the various PL methods and recalculate the screen instantly for evaluation. Check all PL modes for any unusual changes and surprise positives. Hidden strength for some horses can be found this way.

[Rotate Lines]
This button will toggle through each of a horse's running lines one at a time and re-calculates the data for instant analysis. Use [H3] option to keep the horse in focus with the highlight bar on the top screen. If you click this option, the PL mode automatically switches to PL-0.

Reminder: the selected running line for each horse is shown with a (#) on the far left of its past-performances. Using PL-0 and the <enter> key, or dbl-clicking, you can change these selections manually.

MAXVEL Software User Guide

Modeler vs. Robot

The modeler function within MAXVEL has some similarities to the HTR2's *Robot* screen, but don't expect *Robot deja vu* – the Modeler is a whole different concept of statistical analysis and is designed for immediate handicapping rather than long-term research.

Modeler output is an entirely different methodology from the typical testing we do in HTR2 with our Export (db) data or *Robot* tester. Modeling is about looking for recent patterns, bias and the dominant tendencies of winners.

Let's look at some of the differences between *Robot* testing and modeling ➔

Robot
Looking for long-term statistical positives and consistent profits.
Modeler
Uncovering recent (and perhaps hidden) patterns of success or bias with winners. Short term analysis.

Robot
Often look at multiple tracks (universal testing) over long periods to find spot plays or winning combinations of factors.
Modeler
Checking one track for recent win patterns during the most recent month or last 20 –30 races.

Robot
Filtering data with a variety of parameters and factors.
Modeler
Almost always looking at one track / distance / surface at a time. Rarely including additional items, but simple class separation (maiden, claiming, etc.) is a useful option.

In the early 1980's when the *Sartin Group* first began the modeling procedure, they had to do the work by hand, writing down the rankings of the winners after the races were over. After publishing the technique in his book in 1991, this method became known as the *Brohamer Decision Model*. It was as simple as tallying the velocity factor ranks for winners in a few basic categories. The key was that they used a specific track/distance/surface for the procedure. This often uncovered hidden patterns with early/late categories that the general public could not see. Read *Modern Pace Handicapping* chapter VII for more.

The modeler used in MAXVEL is a high-tech advancement over the old methods -- you'll get your data in seconds -- but the concept is still the same, looking at stats to determine if something is repeating or if there is underlying strength in the ranking numbers from recent winners. Then betting the horses that match that scenario in the current race.

A major advancement to our 2007 Modeler is the *Rating*. This is used to immediately identify and compare the various factors for hierarchy of strength and weakness. The Modeling screens are sorted by the highest rated factors. Field size is a key element of the algorithm for the Rating. A horse with rank=3 in a field of 14 has more meaning than rank=3 in a field of 5. This was a drawback of the *Brohamer Model*, it was an observational approach only, but today we can quantify that information more accurately. On the next page are details of the Modeler operation.

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Modeler Operation – Race Filters

You'll use the Model screen to quickly evaluate recent races at one track. The left side of the screen has familiar filters for those that use the HTR2 *Robot.* The key item for quick modeling of current races is the "Race Analysis" button and it sets the filters automatically. But you can model virtually any race scenario on your own. I mention the HTR2 *Robot* several times below – if you are not familiar with it, read the *Robot User Guide* in the HTR Library.

The Modeler has functions that you won't be able to duplicate with the *Robot* or even with a db program such as Access. You can instantly evaluate a current race and quickly check all the PL modes with considerable speed to find the most optimal scenarios for horses running today.

To use the Modeler, load up all your files at startup as you would if using the *Robot* or *PPX* in HTR2. You'll want to have at least the last 30 days of files for the focus track in your test folder. If the meet has just started, it will only take about a week to get a good model.

Race Filters

- *Class Type*, *Age* and *Gender* Restriction checkboxes are used for specific race categories if desired. For example: if you want to test Maiden Claimers only, un-check the boxes for *Stk/Alw*, *Clm*, and *Msw* and leave only the checkmark for *Mcl*.
- *State-Bred* boxes allow you latitude over whether you want State-bred or Non State-bred in your sample. Default uses both.
- *Purse Range*. Use this to filter a range of purse values.
- *VI Range*: You can set a range for the VI (Volatility Index) in the Modeler. The lower the VI, the more likely a longshot will win. Range 15-50.
- *Field Size*: this allows you to test various field sizes (number of horses in the race). Typically this is used to separate larger fields.
- *Surface Filters* are the same as those found in the *Robot*. You can manually set these, but they are automatically set for you if you select a race for analysis (see below).
- *Distance Filters* are used to isolate an individual distance, these are also automatically selected by the individual race analysis Modeling.
- *Days Back To Test*: This option allows you to set up the number of days back you want the modeler to test your data. It works by calendar days, not race days. While you can set it for long term, this is not the most advantageous approach. You will rarely want to test past 90 days. The "Race Analysis" tool stops after 20 matches are found no matter how many days back are set. The key to modeling is *recent* data analysis.

PL Modes (PL-1, etc.) and Variant options (VAR1, VAR2) are selected by the handicapper directly in the modeler and can be changed as often as desired during the testing process. More information on these options is found later in this text.

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Modeler Operation – Modeler Options and Output

There are four options when using the Modeler to produce useful output =

[Full Stats] = Robot style printout of every factor found in the MAXVEL. All the factors are shown with their entire spread of ranks from 1-10.

[Run Modeler] = This is the custom setup Modeler that uses your selected filters. Setup your criteria, such as distance/surface and class type and choose how many days back you want to test. You can select multiple tracks to test with this option.

[Race Analysis] = Runs data for a single selected race. When clicked, this option automatically sets the track and race filters for you.

A list of races for the current date (or choose any date from the main screen before entering the Modeler) is shown above this button. Choose a track and race number that you want to research and handicap.

There is an option right below to choose distance/surface or dist/surf/class type as the filter choices. You may want to try the second option to start with, but if the data is short (less than 10) then choose the first option to get more races in the sample.

After choosing a race and clicking the [Race Analysis] button, the Modeler will search for the last 20 winners that match the race criteria. You can extend the Days-back to test if 20 matching races are not found. If you want to test more than 20 races, then use the [Run Modeler] option above.

The field for the selected race is shown in post-position order at the top of the output. The stats for the model results and the Rating are shown at the bottom. Read more about the *Rating* on page-15.

[Show Model for this Race] = This is very similar to the above option as it will automatically set the criteria for the selected race. But instead of displaying the field for the current race, it lists all the winners for the past matching races – up to 20.

This list of past winners with all the factor ranks is the classic *Brohamer Decision Model* output.

All of the Model options will display additional information for you perusal →

Early Energy = Low, High and Average
Post Position Bias = Inside, Outside or None
Running Style Bias = Early, Closer, or None
Average Win Mutuel = average win payoff for the matching races in the sample
Longshots = percentage of the winners that paid $20 or more (normal = 17%).

The first three items listed above have a complete output explanation found in the "Advanced Handicapping" sections starting on the next page.

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MAXVEL Advanced Handicapping - Page 1

PL-Modes

There are nine PL modes in MAXVEL, (0-8). The first six are the same ones used in HTR2 (0-5).

PL-0 User selected.
PL-1 Selects last line only.
PL-2 Selects the best line of the last three based on performance figures.
PL-3 Selects the best two lines of the last three and averages them.
PL-4 *Selects the best line that is congruent to today's distance and surface condition, last 6 months.
PL-5 (default) Artificial Intelligence method, selects one or two lines based on logical criteria.

PL-6 Selects the horse's best available E/P velocity line, regardless of race conditions.
PL-7 *Selects the best A/P velocity line if within the last 365-days and congruent to today's dist/surf.
PL-8 Selects ALL the lines for each horse, averages them together. Unusual perspective!

***** Note: PL modes 4 and 7 are *not* forced to choose a line. If the horse has no running lines that match the criteria for layoff or today's race conditions, it will be left blank and no velocity numbers computed. The other PL methods, including PL-5, are forced to select a line no matter how incompatible it might be to today's conditions.

Which PL mode is best? It depends on the race. The MAXVEL modeler is a rapid data processor so you can quickly check several PL modes for the strongest factors and highest ratings.

Variants and Adjustments **VAR1 – VAR2**

The velocity factors in HTR2 and MAXVEL are adjusted with several proprietary variants and algorithms to equalize the ratings for all horses as much as possible. This adjustment process seeks to normalize the A/P velocity and PER ratings above all else. This can lead to unusual distortions in the early and late factors when horses change distances, but the A/P and PER will be held accurate for comparison for all thoroughbreds.

Cramer speed figures and variants are used in the default adjustment process (VAR1), particularly for daily track variant computation. This has enabled HTR to provide the most accurate pace and velocity numbers in the business.

The VAR2 available in MAXVEL eliminates the Cramer figure variant but retains the standard HTR2 adjustment process. This means VAR2 will not have ratings that can be compared universally between all horses. VAR2 is only useful for the current race comparison.

I have not researched VAR2 extensively. You can test and model it's effectiveness using the MAXVEL Modeler and compare to VAR1.

RATING - Modeler Output

The *Rating* is the key output for understanding the Modeler data. The Modeler has a sophisticated algorithm that senses the strength of the rankings for winners and computes a Rating for each of the 13 MAXVEL factors based on field size and the depth of the rankings. Rank=1 is weighted higher than Rank=2 etc. But a rank=3 from a field of 14 is more impressive than a rank=2 in a field of 5 and the algorithm addresses that issue for greater accuracy. Below is chart with a basic summary of the *Rating*.

99 maximum rating, most of the winners were rank= 1 in this factor
80 very strong prediction, mostly 1-2-3 ranks are winning
60 good prediction range, try to locate a 60 or higher rating for each race you look at
50 average rating, fair prediction
40 mixed results, factor not reliable
30 negative prediction
10 lowest possible rating, highly negative

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MAXVEL Advanced Handicapping - Page 2

Tops - Modeler Output

In addition to the *Rating* score, there are Modeler stats showing the following information about each factor ➔

TOP1 = this is win percentage for rank=1 only.
TOP2 = win rate for ranking = 1 or 2
TOP3 = win percentage for the 1-2-3 ranks combined
TOP4 = win percentage for the top-4 ranks together in that factor

For example: FR2: TOP3 = 70%. This tells us that the horses ranked = 1,2,3 w/ FR2, won 70% of the races. What is considered a good percentage for each of the four? Benchmarks for a strong factor =

30% - 50% - 70% - 85% **Benchmark *Rating* = 60**

Sometimes you'll notice a high percentage with the "tops" that does not seem to correspond with the *Rating*. Also, the factor with the highest win rate, does not always receive the top *Rating* score. There are two primary reasons why this will happen.

1. The Rating takes into account field size. A factor rank= 4 in a field of 5 has almost no meaning, but rank= 4 in a field of 14 has more impact. The final *Rating* algorithm weights the ranking based on the number of horses that ran and gives more credit for larger fields.

2. Many fields are not 100% inclusive with every ranking. FTS (first starters) for instance, don't receive any of them except (K) and HTR. Horses with no PLs, such as with PL-4 or PL-0, will be zeroed out of the ranking mix in most factors. These horses are blanked or "x" on the screen. The *Rating* takes into account the dispersal of the ranks. Some fields with many FTS will have just one or two horses with velocity rankings and they obviously will be 1-2 in every factor. This can greatly distort the data so adjustments are made.

The above brings up an important issue when running your models and handicapping a race. Maidens, PL-0, PL-4, PL-7 will tend to have many blank horses. As mentioned, the *Rating* will attempt to iron out the scores for each factor, but this still leaves a field full of holes to handicap if it is a current race you are looking at. Adjust accordingly, if some of the contenders don't have any numbers to look at, consider the intangibles such as Wk, PED and TRN.

Post Position Bias

You'll see three possible outcomes with this.

1. **INSIDE**
2. **OUTSIDE**
3. **NONE**

If the bulk of the winners are coming from the inside half of the field (keeping in mind again that the Modeler inspects field size), the "Inside" will get the nod. If the majority of horses are winning from outside posts, the "Outside" is displayed. "None" can mean there is no bias and horses are winning from all post-positions or it could mean the middle posts are strongest. The algorithm I used isn't sophisticated enough to determine the difference, so peruse the Track Profile for greater detail.

Running Style Bias

Output also has three basic designations. It is based on the predominant style of the winners.

1. **EARLY**
2. **CLOSER**
3. **NONE**

The two items above are a summary of information compiled from the winners of the modeled races. They are not predictions for the future, so use them as a guide only.

MAXVEL Software User Guide

MAXVEL Advanced Handicapping - Page 3

Early Energy%

If you are not familiar with the concept of Early Energy%, please read *Modern Pace Handicapping* by Tom Brohamer, page-215 "Energy Distribution".

In the past I have printed that my experience with testing early energy (EE%) is like "trying to pin jello to the wall" – just cannot make anything stick. Unlike all the other velocity factors and ratings, EE% can't be ranked with hierarchy of probability. In other words, rank=1 is not more effective than rank=9 by any means. Without some structure, it is difficult to quantify and research with a computer.

The concept of EE% is to locate horses that utilize their running style and pace tactics in accordance to the typical winning energy profile. The MAXVEL Modeler displays the high/low and average range for the winning energy distribution. Some horses will fit perfectly with the normal and many others would seem to be easy eliminations. There are several problems with EE% in terms of contender identification however →

- Track course geometry is the most important aspect to EE% ratings. Horses and jockeys have no control over this. The difference between 1-turn and 2-turn (or even 3-turn at bullring tracks) is significant and can make comparison difficult between the various racecourses.
- Jockey pace characteristics exert a major influence on EE%. Riders will rate their horses according to their perception of how the race is typically won. For example, at 5.5D they will probably go all out to gain position, but at 9.0T, they would hold the horse and stay away from the lead and save the energy for late in the race.
- Young horses tend to run full blast from the gate. Their energy ratio will be very high at the beginning of their career and drop down as they mature and learn to conserve their energy. With any age group, pace duels are common and produce a suicide pace that distorts the energy on the high end.

Winning a horse race is usually not about running the perfect energy profile. Consistent successful horses are able to improvise on any pace situation and will run a variety of energy ratios in their top efforts. Closers tend to be more dependable as they will reserve themselves off the pace at the same rate of speed most of the time. Although the late runner may have recurring EE% ratings, they don't win as often because they need the horses in front of them to fail, usually due to suicidal fractions.

Having said all that I'm not ready to ignore the EE% in my handicapping yet. A single simple distinction that came up with the MAXVEL convinced me that there is some method to the madness. It was the sorting of the EE% on the screen from high to low. Unlike the other factors on the screen, high EE% has no meaning in terms of probability of winning, but is useful for evaluating the pace setup (or "matchup"). Take a look at the example field below, who do you like based on the EE% alone? Sorting like this helps us to see possible pace scenarios and who it might favor.

```
Normal energy 6.0D for this track (from the Modeler)
     = 52.50%
HorseA  53.79%
HorseB  53.66%
HorseC  53.52%
HorseD  52.93%
HorseE  51.30%
HorseF  50.59%
```

The first four horses have high-energy ratings. "D" is in the best shape if he can rate off the other three. But clearly A-B-C want to run fast from the start and that may wipe them all out. Can "E" and "F" win the race? Maybe, but their profile is a little low, they'll need help up front, and might get it here. At least the EE% sort in MAXVEL has enabled us to ponder it again.

Late News and Announcements

Vegas Baby

I'll be out of the office from Jan 16-21 and again from Jan 25-29 while in Vegas for the HWS and NHC tournaments. Looking forward to meeting up with all our HTR contest players at the championships and wishing you great success. We'll keep everyone at home posted on the bbs with result and news.

Annual Vegas Seminar July 25, 2007

We have been confirmed at the Gold Coast for Wednesday July 25 10am for our annual seminar. Make your plans to spend the day with us; always an enlightening experience!

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