

HTR Monthly Report
Thoroughbred Handicapping Newsletter
Sept 2006

Brought to you by –
KM Software
Handicapping Technology and Research

This Month

[1] Front Page

[2] Data Analysis

*HTR2 – Testing the Bookends
Min and Max JKY, TRN, PED, Wk & K*

[7] Handicapping

*Using LearnX for Handicapping Smarts
What's Good About a Bad Pedigree
Catalyst & Hidden Variables*

[9] Robot

*Impact!
K=1
2yr Dashes*

[11] HTR2 Upgrade

Sept 2006 Software Update

[12] Back Page

Late News and Tournament Doings

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.

All proprietary rights to this material belong to KM Software. No portion of this product may be reproduced, copied or transmitted on the Internet without the express written consent of KM Software. All articles and information in this newsletter are written by Ken Massa unless otherwise stated. Test data files are provided with permission from Handicappers Data Warehouse and Equibase Corp. The test results, analysis and opinions found herein are those of KM Software/HTR only - Handicappers Data Warehouse and Equibase Corp are not responsible for the written contents of this newsletter and cannot be held accountable for any claims made in it.

*Handicapping with HTR2***HTR2 – Testing the Bookends / K Rating**

Let's take a look at the extreme highs and lows with some key HTR factors. First a review of the items to be tested with their minimum and maximum values as shown on the HTR2 screens. We'll follow with a test and discussion of each and learn some important facts about each rating →

<u>Factor</u>	<u>Min</u>	<u>Max</u>
(K)	050	115
TRN	050	550
JKY	050	550
WK*	065	095
PED	050	990

- non-zero minimums shown, zero value not part of this study as it indicates no data available or no workouts/running-lines to compute.

<u>K-Rating</u>	<u>Purse \$10,000 +</u>						
<u>Factor</u>	<u>Rtg</u>	<u>Plays</u>	<u>Win</u>	<u>ITM</u>	<u>WROI</u>	<u>I.V.</u>	<u>High</u>
(K)(min)	050	01057	01%	04%	0.59	0.10	\$266
(K)(max)	115	00457	54%	85%	0.91	3.60	\$10

Analysis

The (K) rating maximum appears to be set about right. Previous versions of HTR2 did not have a maximum value and there were rare instances of horses in small fields with K = 117, 118 and even 119 (yes it won at 1/5 odds in a 4 horse field), but they were so uncommon that I decided to cap the top (K) at 115 and lump them all together to make the maximum more apparent to the user. The results confirm the highest (K) as powerful standard.

The win rate, ITM and Impact Value (I.V.) are off the chart with better than 50% of these horses winning and nearly 9 out of 10 hitting the board.

The total plays = 457, so there is typically one or two such horses per racing day. This test involved races with purse > \$10,000, so the numbers will be a bit higher if lower class races were added.

The majority of the K=115 are odds-on favorites, but a few are actually amazing overlays including one that paid off \$10 to Win. The overall ROI = 0.91 which isn't bad with such obvious and dominating horses.

The minimum (K) had a much higher play count than the maximum, and that is a mild surprise. I guess it's a tendency to notice the high ratings with greater interest. The K=050 bottom is a near perfect setting with the win rate well under 1% and the Impact Value approaching zero! Can't get much worse of a group of 1000+ horses with a mechanical approach.

FYI: there were just 9 winners in the sample of 1057 races (0.85%) with K=050.

The ROI on the minimum (K) is very low at 0.59 (the Place ROI = 0.37, Show ROI = 0.28) but most of that return comes from several 99/1 shots that hit in fluke race outcomes, including accidents and inclement weather. If you are going to bet such horses, 99/1 is the minimally acceptable odds.

In terms of pure computer handicapping factor, we can't really push the results much higher or lower with the bookend of the (K) rating. They seem to be right on in terms of the full range of the (K).

Handicapping with HTR2
HTR2 – Testing the Bookends / TRN

Next we'll look at the extreme highs and lows with the TRN (trainer rating) and the JKY (jockey rating). These two range from 050 to 550. We define a "super trainer" with a TRN ≥ 400 and a "super jockey" with JKY ≥ 350 .

<u>TRN Rating</u>		<u>Purse \$10,000 +</u>					
<u>Factor</u>	<u>Rtg</u>	<u>Plays</u>	<u>Win</u>	<u>ITM</u>	<u>WROI</u>	<u>I.V.</u>	<u>High</u>
TRN(min)	050	06299	03%	15%	0.54	0.31	\$301
TRN(max)	550	00171	35%	70%	1.03	2.73	\$14

Analysis

Keep in mind that the lowest TRN and JKY rating = 050, but this does not include trainers and jockeys with limited starts or even those making their career debut. The generic rating = 215, which is slightly below average but represents the typical performance of trainer or jockey that would otherwise be rated zero. These days, trainers are often suspended for drug violations. A substitute, usually a barn assistant, is named in the entries and they often have no starters in the data. The barn often continues to win – so the base rating = 215 is a good starting point instead of 000 or 050 to begin accumulating the winning stats.

The 050 rating is the bottom level for trainers with experience. Often they have no winners in the last 356-days or have had very few horses finishing in the money. In this sample of 6299 trainers rated = 050, just 206 of them managed to win (3.3%). Amazingly, a few of these horses went to post as the favorite and many others were a terrible underlay at low odds. The return on investment was miserable with an ROI = 0.54, but would have been much lower without the addition of a several 99/1 odds winners.

Maximum rating = 550 and there were just a handful (171) of such trainers. They did very well and produced a flat bet profit, but I'm not inclined to endorse a 1-year sample that has less than 365 sample plays (at least one per calendar day). This maximum TRN setting should be revised = 500. We can do that in a future update, in the meantime below are the results of the same data sample with TRN ≥ 500 .

<u>Factor</u>	<u>Rtg</u>	<u>Plays</u>	<u>Win</u>	<u>ITM</u>	<u>WROI</u>	<u>I.V.</u>	<u>High</u>
TRN	500-550	00768	29%	63%	0.92	2.27	\$29

At TRN= 500 and up, it is a *super-duper* trainer! The extra high rating is often due to an extremely high Trainer + Jockey win rate above 50%. As expected, the play count goes way up with TRN = 500+ but the impact in the results drops quite a bit from the 550 sample. But this is a more realistic appraisal of the highest rated trainers and the win rate is still very high and the ROI strong considering these are the most obvious and popular names in the business. Keep in mind this test excluded "purses less than \$10,000", a sub-group that would have doubled the play count.

Trainers at the highest rating levels will have TPG = "A" or "A+" in almost all cases. The "super trainers" excel at nearly all aspects of the game including claims, equipment changes, layoffs, FTS and distance/surface changes.

- Part of the trainer rating includes the record with the individual horse. At 500+ the trainer will have likely won multiple times with today's entrant.
- Suspicion surrounding trainers rated this high is often confirmed after they are suspended for drug use. Virtually all trainers we rate as "super" (TRN ≥ 400) have been caught with positive drug tests on their horses – but they tend to return with the same win rates, which makes us wonder how dedicated the racing industry to addressing the drug problem and whether the punishment is sufficient.

Handicapping with HTR2
HTR2 – Testing the Bookends / JKY

The jockeys are next, and the maximum of 550 eliminates nearly every rider.

<u>JKY Rating</u>	<u>Purse \$10,000 +</u>						
<u>Factor</u>	<u>Rtg</u>	<u>Plays</u>	<u>Win</u>	<u>ITM</u>	<u>WROI</u>	<u>I.V.</u>	<u>High</u>
TRN(min)	050	01538	02%	12%	0.33	0.23	\$115
TRN(max)	550	00005	60%	80%	3.54	4.08	\$25

Analysis

I'll have to set that max JKY rating = 500 as well. Just five jockeys managed to reach the ultimate rating of 550 in the last 365 days. Let's take a look at JKY >= 500 instead.

<u>Factor</u>	<u>Rtg</u>	<u>Plays</u>	<u>Win</u>	<u>ITM</u>	<u>WROI</u>	<u>I.V.</u>	<u>High</u>
TRN	500-550	00149	32%	64%	0.89	2.10	\$25

Still didn't get much of a sample, but because the impact value exceeds 2.00 at this level, this is a logical maximum rating. This dichotomy between the jockey and trainer rating maximums – with many more trainers exceeding the highest levels – gives more credence to the idea that the trainer win rates are the result of performance enhancement. Jockeys rarely exceed a rating of 400 in HTR – that is equivalent to winning at a rate of over 25%. Yet we see loads of trainer ratings that high these days. I can tell you that the 400 rating was extremely rare for trainer prior to the year 2000; chemistry seems to be as important as fitness and form-cycle in the modern era.

Minimum Jockey rating

The minimum jockey rating, JKY = 050 is assigned to losing riders. Brand new jockeys or those with limited starts are not downgraded and begin with a rating = 215. To achieve the minimum level, the rider has to be on one heck of a bad losing streak in the last 365-days. Once a jock has achieved a reputation of being a consistent loser, it will be difficult to get mounts. Typically these riders will work on the backstretch and exercise horses in the morning while gaining favor with the trainer. Once in awhile the trainer will offer them a mount on an impossible long shot. So it is a downward snowball situation for a jockey that can't get a winner. Often they'll move the tack to a lesser circuit or be content with working for a trainer and give up the dream of becoming the next Jerry Bailey.

Overall, those jocks rated = 050 won just 37 out of the 1538 mounts. But there is an incredible sub-grouping here: tote-favorites with JKY=050 won 45% of their races (!). A reasonable sample of 77 favorites accounted for 33 of these 37 winners. This means the JKY= 050 won just 4 of 1461 races with non-favorites – ouch.

FYI

Just who was the highest rated jockey that emerged from this test? Purse \$10,000 +

The award for highest JKY rating during the last 365-days goes to rider Nathan Condie who rode at BOI on June 23, 2006 in the 7th race. This was a rare purse \$11,000+ stakes at the Idaho track, and jockey Condie showed an incredible 18 wins from just 37 mounts at the time (51%) with 83% of his mounts hitting the board. The T+J rating was 68%. Yes, he won that race too paying \$7.80. Maybe this guy will be moving to a bigger track soon – few jocks have ever been hotter. I could not find further information on him except that he has been riding at other tracks on the western circuit including ELK, but suspect he is a young apprentice.

*Handicapping with HTR2***HTR2 – Testing the Bookends / Wk**

The workout rating has a bit of a problem if looking at the low end of the scale. First, many horses receive a zero, which means they have no published workouts to compute recently. This is not necessarily a negative and is not part of this test. The computed low for horses with reasonable workout activity = 065. As I have mentioned in the past, the workout rating is a *positive-association* factor only. While we can recognize clear patterns of fitness if all the data is accurate, there are still many issues in North American racing regarding workout reportage. Many workouts are missing, incorrect, mis-identified or downright errors sent to Equibase. The object of the Wk rating was to quantify the suspected inaccurate patterns with a rating below 075 and to assume no negative connotation with the lower end.

This is an important factor to remember when handicapping with the Wk rating. The rating was not designed to uncover negative fitness patterns – although some users have been successful with that notion in cases where the work ratings are clearly declining. The new PPX screen might be of help in determining that.

Wk Rating	Purse \$10,000 +						
Factor	Rtg	Plays	Win	ITM	WROI	I.V.	High
Wk(min)	065	26706	09%	19%	0.64	0.78	\$266
Wk(max)	095	00951	17%	44%	0.94	1.46	\$86

Analysis

Nice healthy sample size with Wk= 065 gives us plenty of food for thought at the low end.

With such a large number of plays, there were many races with multiple entrants at Wk= 065, so the I.V. (Impact Value) and ROI (Return on \$1 Investment) are the key statistics. The Win% and ITM are skewed when more than one horses qualifies per race. The I.V. = 0.78 is right at the marginal range for clearly determining that a factor is a negative catalyst. I prefer to see 0.75 or lower with the I.V. before making the declaration that a factor has a clear depressed cause-and-effect on the probability of winning. Yet the ROI is definitive here with extreme losses and well below expectations for a random factor test with standard takeout.

There does appear to be some evidence that a Wk = 065 has a negative effect. The best way to test this hypothesis is to look at how wagering favorites and K=1 perform when Wk = 065. Luckily this factor (Wk=65) gives us a large number of plays to look at with both categories →

Wk Rating= 065	Purse \$10,000 +						
Factor	Rtg	Plays	Win	ITM	WROI	I.V.	High
Favorite	065	02356	31%	68%	0.84	2.34	\$11
K= 1	065	02425	28%	63%	0.76	2.54	\$36

Both items show a mild drop with Win%, ITM and I.V. and ROI when the Wk = 65, as compared to an “all burger” sample. But the drops are not significant enough to declare the bottom Wk is severe negative let alone an automatic eliminator.

Wk= 95

At the high end of the Wk scale the results are positive, but nothing to rave about. I fear that many of the Wk = 95 are flukes though and perhaps due to inaccurate reportage or even quirks in the algorithm. When you spot any horse with a Wk rating over 90, inspect the workout pattern in the past-performances for unusual circumstances. There have been cases with Wk> 090 with no workouts showing at all! The vital statistic with high Wk ratings is the large number of longshot winners. Wk = 95 had many hits over 15/1 including an \$86 score – something we won't find with the other factor maximum values.

Handicapping with HTR2
HTR2 – Testing the Bookends / PED

A big problem with testing the PED rating like this is that horses tend to be facing opponents of similar pedigree strength. At the highest level, PED = 990, the majority of them are up against other *blue-bloods* with PED ratings exceeding 500, such as the Triple Crown, Breeders Cup and most Graded Stakes. This situation is somewhat analogous to testing PER = 110 for instance. Almost all horses with a performance rating of 110 will not be racing against others rated 100 for instance, and if they were, they'd be an odds-on favorite or highly suspicious. If you found a PED = 990 entered in a claimer at EVD, TUP or FL, it would quickly grab your attention -- the horse would either win by 30 lengths or go off in the ambulance. We'll never see that happen and even a lame PED = 990 will be valuable on the breeding farm and never allowed to race so cheaply.

At the bottom level (PED = 050) the situation is similar. A pedigree so weak is not going up against quality runners and the breeding has little meaning with older cheap claimers.

<u>PED Rating</u>	<u>Purse \$10,000 +</u>						
<u>Factor</u>	<u>Rtg</u>	<u>Plays</u>	<u>Win</u>	<u>ITM</u>	<u>WROI</u>	<u>I.V.</u>	<u>High</u>
PED(min)	050	00258	04%	17%	0.40	0.37	\$95
PED(max)	990	00551	17%	41%	0.71	1.51	\$33

Maximum PED = 990

Even at the pinnacle of pedigree power – assigned a 990 rating that indicates the ultimate in a high quality bloodline -- there is no easy money. Again though, these horses will be facing the best in the world every time they race. Take a look at the Breeders Cup Turf in 2005. There were no less than 7 horses with a PED >= 600. The winner and runner up both had PED >= 750; there was a single 990 entrant and he ran out of the money, but this was the toughest turf field on the planet. So do not judge the results too harshly out of context. There were several positive angles produced with PED = 990 that showed profits.....

FR1 = 1
 PAC = 1
 JKY = 1

All of these showed excellent ROI. Favorites and K=1 had hit rates at nearly 40%, which is excellent, but the ROI was not a winner.

PED = 050

These thoroughbreds are the *bottom of the barrel*, unfortunately destined to obscurity in cheap state-bred races or with the lowest level claimers. The results are predictably poor with this group, but most PED ratings less than 100 are confined to the cheapest races. It is rare to find PED = 050 at major tracks, so let's increase the test to include horses with PED <= 150 and take another look →

<u>PED Rating</u>	<u>Purse \$10,000 +</u>						
<u>Factor</u>	<u>Rtg</u>	<u>Plays</u>	<u>Win</u>	<u>ITM</u>	<u>WROI</u>	<u>I.V.</u>	<u>High</u>
PED	050-150	05815	07%	23%	0.65	0.64	\$301

Analysis

Nice fat sample size. This result has profound implications. This is a pedigree rating only; we have no information here about past-performance – genetics only. Yet at these lowest rated PED runners are under performing in all circumstances at major tracks. For example, there were over 300 wagering favorites in the sample and they won just 28% and returned ROI = 0.70; far below normal range for chalk.

Next page- we'll look at PED <= 150 with greater depth using the *Robot LEARN ALL*.

Research w/ Robot
LEARN ALL / PED <= 150

The *Robot* is a great learning tool with the 2006 upgrades (July or later). You can use it to gain general knowledge about thoroughbred prediction and the strength and weakness of the various HTR factors. On the previous page, we ran a test with PED <= 150. Now we will run it with the LEARN ALL function. So far we have looked at the overall results and made some general conclusions. Next we'll look at it in depth and uncover some intriguing realities with these horses.

PED 50-150		Purse \$10,000 +				
Item	Plays	Win	ITM	WROI	I.V.	High
2yr	00804	06%	20%	0.59	0.55	\$95
3yr	00781	08%	23%	0.70	0.71	\$97
Older	04230	07%	24%	0.65	0.64	\$301

This first chart separates by age group. The 2yr group gets the worst results. This is the type of indicator we need to see to verify the underlying strength of a pedigree rating. Young horses with poor breeding are in big trouble against their peers with higher ratings.

PED 50-150		Purse \$10,000 +				
Item	Plays	Win	ITM	WROI	I.V.	High
Male	03183	07%	24%	0.60	0.65	\$152
Female	02632	07%	23%	0.70	0.63	\$301

Separation by gender in this section - the impact value is almost identical and that tells us that a bad pedigree is not sex biased! Notice the play count = the females are much closer to the numbers of the males than would be found in a general sample; indicates the weakness of the races these horses are competing in.

PED 50-150		Purse \$10,000 +				
Item	Plays	Win	ITM	WROI	I.V.	High
TRN >= 400	00084	21%	48%	1.38	1.72	\$85
TRN <= 200	03379	05%	17%	0.55	0.40	\$301

Bad breeding? No problem for the (TRN 400+) 'super trainer'! There were just a handful during the last 365-days, but a lowly pedigree did not slow them down and they show strong numbers anyway – does "performance enhancement" overcome bad genetics?

The combination of a bad PED and weak trainer is like dynamite and matches – blows the negative statistics right off the chart. There were a few 99/1 winners (including one that paid \$301) that actually inflate the (-45%) ROI and make it look better than it is. Notice the I.V. = 0.40 is much lower than our general sample 0.64, so the losing trainer is exacerbating the bad news.

PED 50-150		Purse \$10,000 +					
Item	Plays	Win	ITM	WROI	I.V.	High	AvgWin
Favorites	00306	28%	63%	0.69	2.42	\$8	\$5.00
K=1	00319	28%	64%	0.90	2.43	\$21	\$6.40

The comparison above might disprove the argument that K=1 is a 'chalk picker'. Tote favorites and K=1 have nearly identical sample size and hit rates with PED=050, but the K=1 holds a respectable ROI while the *chalk players* lose their shirts with these horses (-31%). A few good prices make all difference. The public does not seem deterred by a bad pedigree on the chalk (more likely they are not aware of it), but the weak ROI and average win price indicate there is no holding back on these horses in the wagering.

Research w/ Robot

Catalyst and Hidden Variables

As you work with data, such as testing with the Robot or researching with database applications, you'll locate specific factors that improve the standard sample. For example, in the query on the previous page we found terrible results with PED<=150. However, a single variable (TRN 400+) improved it considerably and dramatically enhanced the expected outcome.

Catalyst variable = TRN 400+

In the example, the trainer rating that exceeds 400 points is our *catalyst variable*, or a cause-and-effect mechanism that reverses the expected negative outcome. But what is the underlying reason for this? How can this single rating change the lot of horses that test so poorly otherwise? The answer to that takes a little more thought and is called the *hidden variable*.

Hidden variables = performance enhancing supplements, better training techniques, improved care, access to better training resources, intelligent management (race placement).

The most likely explanation for the impact of the 'super trainer' is drugs. But not all trainers rated 400+ are using illegal techniques. They may improve their chances by properly resting and caring for their horses and giving them different combinations of food supplements and vitamins. Top trainers are also masters at management and placing their runners where they can win.

Why should we care about the 'hidden variable' as long our data is positive? The underlying reasons for the impact of a catalyst variable will always lead to greater knowledge and understanding. Horses are mammals, not machines; the people that breed, train and ride them are no different than you and I. Patterns of success and failure in horse racing are due to physical issues, not analytic data. When you dig a little deeper (hidden variables) you'll gain insights that will take your game to a new level.

Hidden variable: Blinkers OFF

A good example of thinking deeper comes with the equipment change: blinkers off (bx). A simple hood removal that has amazing implications with longshots with ROI results. Almost any tested sample will show improved results when a "bx" filter is applied.

But what is actually happening with "bx"?

- The trainer is confident the horse is able to handle close company without 'blindness'.
- The horse may have matured and seems to understand how to race and relax with its rider.
- Workouts have improved when the hood is removed.
- Competitive nature is increasing, seeing the other horses will increase its desire to run harder.
- The horse is at peak health.

That last item is perhaps the most important and may encompass all the other ones. All thoroughbreds go through periods of soreness, injury and then healing. The removal of blinkers (and other items such as front wraps off, lasix off, etc), are a signal that the animal is enjoying a period good health and it is time to "let it all hang out". Or even the implication that drugs are working and the horse is feeling better.

So blinkers off is not usually an experiment; it is a move that says things are going well with the horse and the barn is sending out a runner with a twinkle in its eye. The "bx" doesn't win every time – healthy horses are not the fastest or classiest or even the luckiest – but they rarely break down and tend to run their best effort.

Professional and winning horseplayers use their intuition to consider and understand the 'hidden variables' beyond the statistics.

*Handicapping with HTR2 / Robot Topics***K=1 and Impact Value**

Impact Value (I.V.) is an essential element to the *Robot* output. I fear that many users aren't real confident of the measurement and hopefully this article will clear it up for you.

Below is a chart that displays K=1 by field size. I have run these stats in the past in this newsletter, but want to update it here and go into more detail about the importance of Impact Value.

K=1 Purse \$10,000 + All Races August 1, 2005 - July 31, 2006							
Field Size	Plays	Win%	ITM	WROI	I.V.	High	AvgWin
5 or less	02570	40%	82%	0.85	1.91	\$12	\$4.22
6	05655	35%	73%	0.87	2.11	\$21	\$4.97
7	07351	32%	68%	0.87	2.25	\$36	\$5.40
8	06736	29%	64%	0.85	2.32	\$30	\$5.77
9	05325	28%	61%	0.86	2.52	\$40	\$6.05
10	05130	27%	57%	0.86	2.72	\$28	\$6.30
11	01912	25%	56%	0.85	2.76	\$36	\$6.71
12 or more	02261	25%	52%	0.85	3.03	\$45	\$6.93

As you would expect, the K=1 win rate (Win%) declines as the field size increases. However, the impact value (I.V.) increases correspondingly. Why does that happen?

Impact value is a measure of expectation vs. outcome. If we were testing a random independent variable, a single post-position for instance, we would expect the following win rates per field size →

Field Size	Random Expectation
5	20%
6	17%
7	14%
8	13%
9	11%
10	10%
11	09%
12	08%

Suppose we examine post-position number = 1 with field size = 10 (10% expected winners). Our study at some track reveals 20% winners from this post. How strong is this impact? 20% wins @ 10% expectation. $20/10 = 2.00$.

The I.V. = 2.00, which is double the normal expectation, a very strong sign.

Now look back at the chart above with K=1. An underlying strength to the K=1 is the fact that the impact value increases along with the field size, meaning that K=1 is more than holding its own as races become more difficult to handicap with increasing numbers of horses involved in the mix.

Another important aspect to impact value is when testing situations that have multiple horses per race. We'll look at that on the next page.

Below is a chart that gives a general idea of the meaning to the I.V. →

I.V.	Meaning of Impact Value
0.00 - 0.50	Extremely negative
0.50 - 0.75	Moderately negative
0.75 - 0.90	Mild negative
0.90 - 1.10	Normal range for a random variable, neutral
1.10 - 1.50	Mild positive
1.50 - 2.00	Moderate positive
2.00 - 3.00	Strongly positive
3.00 - 5.00	Powerfully positive

*Handicapping with HTR2 / Robot Topics***2yr Maiden FTS and Impact Value**

Next we'll look at impact value from the perspective of a factor that is found multiple times in the same race. In fact, in many of the races I tested for this section, 100% of the horses were qualifiers. This is because the query involved 2yr Maiden FTS (debut runners) entered in races of 2.0f – 5.0f. These quick dashes are run primarily during the first half the calendar year and most of the babies are making their debut run.

Here are the stats with FTS. Keep in mind that a FTS won over 40% of these races. That information is useless because about 50% of the entrants *are* FTS. The multiple instances of qualifying horses skew the Win%, ITM and ROI below→

<u>FTS</u>	<u>Purse \$10,000 +</u>	<u>Fast Dirt 2.0f - 5.0f</u>	<u>2yr Msw or Mcl</u>				
<u>Factor</u>	<u>Plays</u>	<u>Win%</u>	<u>ITM</u>	<u>WROI</u>	<u>I.V.</u>	<u>High</u>	<u>AvgWin</u>
FTS	04064	11%	33%	0.71	0.88	\$115	\$13.6

There were 1167 races tested and 4064 qualifying plays. That means there was an average of about 4 FTS per race. Obviously, at least 3 of these will have to lose. The win rate and bet returns are not realistic. The key statistic is I.V. = 0.88.....

Refer to the chart at the bottom of the previous page to understand impact value in context. The 0.88 gives an indication that first time starters are just slightly disadvantaged. Next look at the stat with FT > 50 with these horses – perhaps this positive factor that will help us separate the FTS. The FT > 50 means the first time pedigree rating is above average.

<u>FTS</u>	<u>Purse \$10,000 +</u>	<u>Fast Dirt 2.0f - 5.0f</u>	<u>2yr Msw or Mcl</u>				
<u>Factor</u>	<u>Plays</u>	<u>Win%</u>	<u>ITM</u>	<u>WROI</u>	<u>I.V.</u>	<u>High</u>	<u>AvgWin</u>
FT > 50	01050	15%	41%	0.92	1.30	\$69	\$9.20

In this case the I.V. for our FTS with FT>50 increased to 1.30. This is a modest positive indicator on its own, but when compared to the 0.88 from the previous test, it is quite a boost. In this test, there may still have been multiple entrants qualifying in the test, but definitely fewer than the general FTS and the ROI begins to have some meaning. Notice the average payoff for these winners = \$9.20, compared to \$13.60 for the general FTS group, meaning the public is certainly aware of the productive pedigree situations.

Which factors have the strongest impact with these 2yr Maiden dashes? The list below is sorted by impact value, but the ROI and average win price may be more important in cases where there is typically one qualifier per race, such as Favorites, K=1 and HTR=1.

<u>Purse \$10,000</u>	<u>Fast Dirt 2.0f - 5.0f</u>	<u>2yr Msw or Mcl</u>					
<u>Factor</u>	<u>Plays</u>	<u>Win%</u>	<u>ITM</u>	<u>WROI</u>	<u>I.V.</u>	<u>High</u>	<u>AvgWin</u>
Favorites	01247	38%	71%	0.86	3.05	\$10	\$4.60
K=1	01169	35%	69%	0.99	2.84	\$45	\$5.60
HTR=1	01203	34%	70%	1.00	2.77	\$45	\$5.80
TRN>400	00212	32%	58%	1.26	2.73	\$29	\$7.80
WINEF Last	00299	31%	63%	0.90	2.66	\$18	\$5.90
FC=85+	00701	29%	65%	0.83	2.52	\$23	\$5.60

The FC=85+ presents another issue where the impact value can iron out the convolution of the results as the FC rating is not assigned to horses without a race. It's possible there were zero FC rated horses in many of these races, and multiple entrants with an FC in others. The I.V. = 2.52 cuts through that complexity and makes it a clear indicator that FC=85+ has a strong cause-and-effect relationship on the outcome of these 2yr dashes. Yet the average win mutuel is too low to produce profits and the public has no problem latching on to these horses – the highest priced winner was just \$23 so the lack of longshot winners is also a negative in the case of FC=85+. Overall, favorites have the strongest impact, but lose too much money – so the HTR=1 and K=1 are much better alternatives with those good ROI.

HTR2 Software
September Minor Upgrade – Q & A

A minor upgrade to the HTR2 software (Sept 2006 version) will appear by the time you read this →

- Fixed a bug in the TPG that was displaying the wrong grade if two horses on the same race card had similar spelling. The Trainer Stat text file is a single entity, not split by individual races, so there were instances of incorrect grades. This bug also occurred in the export.
- Fixed a few display problems that were limited to the screen only, they did not occur in the Robot or Export. For example: a jockey change, if JKY>=350, was not displaying the (+) in front of the jockey rating to indicate a positive switch. However, the Robot and Export were processing this correctly; it was only the visual that was in error.
- Users found a few minor glitches in the *Robot* buttons, but no actual errors in calculations or output. No major issues have been reported – so that's good news.
- The PPX adds an "x" in front of the JKY and PED ratings if there were changes that would have negated the ratings on that running line. Our jockey and pedigree stats are hard-coded into the file based on the assigned rider and scheduled distance/surface to be run. If there is a late jockey switch or a race is taken off the turf, there is no way to update the stats on the fly. This has not proven to be statistically problematic, but you should be aware of it in the PPX.
- Program screen [PGM] and [KM] screen add an ">" next to the KLine if the MLO odds are higher than the KLine, possibly indicating an overlay.

Q & A

What are the (+) symbols that are shown after the (K) rating on the Program Screen?

The K (+) is assigned to any of three situations listed below. The (+) significantly improves the horse's chances and improves the probability of any (K) rank.

1. K rating ≥ 110
2. VEL = 1 (velocity consensus is ranked best)
3. HTR = 1 (HTR-Consensus of 10 factors is ranked best)

Why do I get so many "N" ratings with the TPG (and blanks for the Owner field) when I export the data to Access or when looking at older races with HTR2?

If you were like me, you probably didn't download the Trainer Stat text file along with all your race cards in the past. If there is no trainer stat file available, all the TPG = "N". This is also true of the Owner name now exported in HX4. So any large-scale export/import to a database program will have mostly "N" ratings unless the Trainer Stat file was found. If you look at past races, you'll see an "N" for the TPG column unless you downloaded the Trainer Stat text file with those cards.

When I switch a race from the Turf to (wet) Dirt on the Scratch screen, the (K) rating and other factors change, but the PED rating stays the same – shouldn't the pedigree rating switch to a mud rating?

I alluded to this above with the item about the "x" addition to the PPX. Our data files do not contain a substitute PED (pedigree) rating for every possible distance/surface category the horse might face. The rating is targeted to the scheduled distance and surface for today's race. If there is a switch, the PED remains the same. The typical situation is when a race is moved from the grass to the sloppy main track on a rainy day. My own queries have revealed that the grass PED rating actually performs better in the statistics when races moved to the slop are tested separately. But this is a little deceptive. Field size shrinks in half, and most of the remaining horses that are willing to run in the wet track are probably experienced off-track runners with decent wet records. Also, the PED rating is based on distance as well as surface, so the rating is not entirely negated with the switch from the grass. HTR does not have a separate mud rating the horse's PED anyway. Tracks usually cancel if there is truly muddy surface nowadays and records on "wet" are often 'sealed' tracks and faster than fast in most cases.

*Back Page***Late News and Announcements****HTR2 Update – Additional Last-Minute Changes in Sept 2006 Version**

The KM screen adds a **L10** under the 'notes' column to horses that have not run a WINF (win or close-up effort) in any of its last 10 starts. Yes, some of them will win, especially in maiden claimers, so this is not an eliminator and I shun absolutes, but it is a warning that the horse has not put out a solid effort in a long time. Interesting that some of these that did win, were recent claims by a 'super trainer' – very interesting turnaround!

The **FT** rating is now correctly capped = **99**. High ratings > 99 are rare, but they were not displayed correctly on the screen. So now you'll see "99" for the big ones, all of whom are obviously dangerous.

TRN and **JKY** ratings maximum = **500**. See pages 3-4 herein for more. Change was made to the *Robot* display as well.

Lasix (L) added to the **PPX** screen.

TIM (Timonium, MD) added to the **auto-download** track list and "B" list.

HTR is a service of –

KM Software

Voicemail: 714-366-1HTR

Fax: 714-693-3399

Email: kmssoft@earthlink.net

HTR website (software updates): www.htr2.com
www.homebased2.com/km

HTR Monthly Report is an on-line newsletter and is normally completed at the end of each month, then placed on the HTR member (download) web site around the 5th of each month. Monthly subscribers to HTR can view the current newsletter for no charge on-line, Adobe Reader software (free) required. Past issues are available in our website archive library.

Products and services from KM Software

HTR Unlimited Download:	\$119/mo includes the on-line edition of this newsletter.
HTR Monthly Report newsletter:	\$79 for a one year subscription mailed 1 st class.
HTR Software	FREE requires download subscription for use. Download the latest copy of HTR software from our web site.

KM Software has been a licensed business in California since 1994.