

## **Release Notes for the JCapper Platinum Build 198 ver 2.0 FULL program download package published 02-02-2021:**

Please be aware that the release notes for this FULL program update are still being written.

Check back later as I will likely be updating this page over the next few weeks as free time allows. *(Last updated: 02-02-2021 at about 10:05 am pacific time.)*

### **What's Inside:**

This download was compiled on 02-02-2021. This download delivers quite a few of the new features I have been working on for 2021.

Also, one of my primary reasons for publishing a program update *today* is:

**The new Main Module .exe file in this download package delivers new user logons for those of you who've recently joined the JCapper user community or upgraded from an older version of JCapper.**

### **New features found in the latest program update:**

#### **JCapper Main Module**

What's New

TDx and NCall Factors

I think the latest program update brings the total number of TDx and NCall factors up to something like 99 new factors introduced since last fall.

No formal documentation yet.

Here's a cut and paste taken from my latest post about these at the JCapper Message Board:

*--begin quote:*

*In a handful of his published presentations and lectures, Bill Benter (Google that name if you don't know who he is) advocated using a logistic curve and a 120 day half-life to apply time decay to final time speed figs and normalized positional calls.*

*The new TDX factors reflect some of my efforts (to date) to add time decay speed and pace figs and time decay normalized positional calls to JCapper Platinum.*

*Basically, TDX stands for time-decay.*

*Time-decay is based on the idea that recent events have more significance than older events.*

*If you study large data samples:*

*You will realize running lines (specifically positional calls and speed and pace figs) lose significance or decay over time.*

*Put another way - recent running lines tell you more about a horse's current condition than older running lines do.*

*The letters NCall stand for normalized positional call.*

*Basically, NCall is position at various calls (pace call and finish call) normalized for field size from each running line.*

*The idea being that a good finish position is harder to achieve in a large field vs. identical finish position a small field.*

*In short: normalized positional call is more significant than non-normalized positional call. And time decayed normalized positional call is more significant than non-time decayed positional calls.*

*Diving in a bit --*

*TDX\_FINAL\_BEST10 is the best 120 day time decay final time speed fig from the past 10 running lines.*

*TDX\_SURF\_BEST10 is the best 120 day time decay final time speed fig on today's surface from the past 10 running lines.*

*TDX\_DIST\_BEST10 is the best 120 day time decay final time speed fig within 1f of today's distance from the past 10 running lines.*

*TDX\_TRACK\_BEST10 is the best 120 day time decay final time speed fig on today's surface and at today's track code from the past 10 running lines.*

*TDX\_WETDRY\_BEST10 is the best 120 day time decay final time speed fig from a running line among the past 10 having similar track condition to today's race.*

*--Hint: This is why I recently went on a campaign to have Equibase make an effort to get the correct track condition into the Scratches and Changes XML. (Starting at about post 23 and ending at about post 43 in the thread at the following link:*

*<http://www.paceadvantage.com/forum/showthread.php?t=159722&page=2>*

*NCALL\_TDX\_FIN\_1BK is 120 day time decay normalized finish call for the most recent running line.*

*NCALL\_TDX\_FIN\_COMP is a composite derived from the 120 day time decay normalized finish calls from the past 10 running lines.*

*Right now as I type this --*

*Composites and averages for time decay normalized positional calls DO give a clean presentation in the data.*

*But Composites and averages for time decay speed and pace figs DO NOT give a clean presentation in the data.*

*--end quote.*

There is a key difference between the last sentence in above quoted post and the Main Module code changes described in the section below when it comes to Composites and Averages for TDx speed and pace fig factors in the latest program update!

## New Code Changes to TDx Factor Composites and Averages

I've applied new code changes to Composites and Averages for ALL of the TDx and TDx NCall factors.

ALL of these now DO give a clean presentation in the data when you are looking at the win likelihood estimates in the gap data generated by the Data Transformations Setting.

Moving on –

I'm not 100 percent convinced 120 days is the optimal half-life for every possible data type.

Currently, the Prob Expressions and SQL Factor Setup Tools enable you to persist a user defined half-life in days for your Prob Expressions.

In a future program update, I'll probably add a setting that enables the user to override the 120 day time decay value with a user defined value for each of the TDx factors.

The new TDx and NCall factors you see in the drop downs can be added to the SQL Factor Setup. Handles also exist for them in UPR Tools... meaning that not only can you add them to your sql factor setup but you can also use them in UserFactors and UPR.

--*Note:* I recently conducted a series of tests where I ran lots of large sample Build Database routines on multiple machines using a variety of Prob Expressions as part of the SQL Factor Setup.

I tested a variety of Prob Expressions using a variety of Behaviors, both TDx Enabled and TDx Disabled. I also tested a variety of Half Life ranges in days from very short (1.5) to very long 900.

After doing that and after looking at the data I can tell you that the optimal Half Life for factors such as Position at Finish Call and Best Time Decayed Speed Figure from the last 10 running lines does in fact appear to be between 90 and 135 days - depending on class of horse.

Other types of data - such as scored Prob Expression query results used to measure significance of Rider, Trainer, and Breeding, etc. appears to have a longer optimal Half Life.

And still other types of data - such as scored Prob Expression query results used to measure significance for inside-outside path bias and early-late track bias appears to have a shorter optimal Half Life.

Keep in mind that just because Benter advocated using these factors does not make them magic bullets.

Imo, Benter never advocated using these factors to pick horses.

Instead, he has always advocated using these factors, along with other factors, as inputs while creating a fundamental model.

Hope I managed to type most of that out in a way that makes sense,

-jp

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## Database Builder UI

In previous versions of JCapper, you didn't have the ability to expand the viewing area while navigating drives and folder structure on your machine.

That was ok when JCapper was introduced back in 2003. The oldest folder year for data files was 2003 – meaning you didn't have too many folders to scroll through when you were about to build a database.

Fast forward 18 years to 2021 – obviously that has changed.

Starting with all versions of JCapper published Feb 02, 2021 and later:

I've applied a code change to the Database Builder's Form\_Resize() event.

You now have the ability to grab the bottom right corner The Database Builder with your mouse – and from there – drag the edge of The Database Builder (down/up and right/left) across the viewing area of your monitor – and in so doing – expand or shrink the size of the Database Builder itself.

--*Hint*: If you do this while the Folder Nav Tool is visible you'll see that the Folder Nav Tool expands or shrinks proportionately with the size of the Datababase Builder as you resize it.

The objective is to make navigating the drives and folder structure of your machine easier when selecting the target folder for a Build Database routine.

## **HDW File Mgr**

### **Background Info**

Several course layout changes went into effect at Aqueduct as of Nov 03, 2017 - opening day of their Fall 2017 Meet:

The old AQU INNER DIRT COURSE was removed.

A new OUTER TURF COURSE was installed where the old AQU INNER DIRT COURSE used to be.

The OUTER MAIN DIRT COURSE (top layer and base) was excavated. A new limestone base (similar materials mix as the old AQU Inner Dirt Course) was installed. A new top layer was also installed.

This change meant that AQU was now racing on two turf courses: The NEW OUTER turf course and the OLD (what they were still calling) MAIN turf course.

This change also meant that AQU was now racing on a new outer/main dirt course.

In mid December, 2020 I began work on a model for winter racing at AQU. During that modeling process I discovered the following:

- a. HDW had been (correctly) publishing an indicator in the Chart Data to identify the two AQU turf courses.
- b. HDW had not yet published an indicator in the Past Performance Data to identify the two AQU turf courses.

At my urging, Ron Tiller at HDW agreed to address item b. (above) and start publishing an indicator in the Past Performance Data to identify the two AQU turf courses.

## What's New

Starting with all versions of JCapper published Feb 02, 2021 and later:

The HDW File Mgr contains a code change to (correctly) read the indicators in both the Chart Data and the Past Performance Data to (correctly) identify the two AQU turf courses.

The two AQU turf courses are now handled as "T" and "t" (without the quotes) in PLMode and as intSurface=4 and intSurface=5 respectively in SQLMode - exactly the same as the inner/outer turf courses at BEL-CNL-SAR-WOX.

--*Hint*: After installing this program update, consider using the new HDW File Mgr to rebuild .XRD files for AQU from Nov. 03, 2017 to present day.

From there, also consider rebuilding databases from scratch. At which point the AQU turf data in your JCapper databases will be formatted exactly the same as the inner/outer turf courses at BEL-CNL-SAR-WOX.

## **Enhanced Settings Module**

### What's New

Starting with all versions of JCapper published Feb 02, 2021 and later:

The Enhanced Settings Module contains the following new setting:

### **Prob Expressions Observations Count Adjustment**

When this setting is toggled OFF: Prob Expressions Horse Scoring ignores the number of observations in the data.

When this setting is toggled ON: Prob Expressions Horse Scoring is adjusted in a statistically valid way for the number of observations in the data.

--*Hint*: Consider turning this setting ON if you have the Data Transformations Setting toggled ON and you want your Prob Expressions to generate more accurate win likelihood estimates in the gap data.

Consider leaving this setting OFF if you are not using the Data Transformations Setting and are primarily interested in using Prob Expressions Rank in your UDMs.

## **The Data Window**

### What's New

Starting with all versions of JCapper published Feb 02, 2021 and later:

The Data Window UI now has a Gray Stripe and a Red Stripe above the Start Range and Interval Drop Downs when operating the Data Window in PLMode.

Note: The Gray Stripe and the Red Stripe have been part of the Data Window UI in SQLMode for quite some time. Now they've been added for PLMode.

### The Gray Stripe:

Clicking the Gray Stripe allows you to Save user defined settings keyed into the Start Range and Interval Drop Downs for the current Breakout Factor.

Once you've saved Start Range and Interval for the current Breakout Factor: The next time you select that same factor from the Factors Drop Down – the interface will read the saved settings from the FactorBreakout table in the connected to J2 file – and reset the Start Range and Interval Drop Downs accordingly.

### The Red Stripe:

Clicking the Red Stripe allows you to delete previously saved user defined settings for Start Range and Interval for the current Breakout Factor from the FactorBreakout table in the connected to J2 file.

After deleting saved Start Range and Interval data for the current Breakout Factor from the FactorBreakout table: The next time you select that same factor from the Factors Drop Down – the interface will apply the system defaults to the drop downs.

--*Hint*: Consider using this feature while operating the Data Window if you are using the Data Transformations Setting – especially for gap data.

--Hint: Before you can use this new feature you'll need to install a current version J2 file.

### Factor Breakout Data for Factors Assigned to F-Slot #'s:

When you are operating the Data Window in SQLMode, and you select any factor assigned to an F-Slot Number (for example SQL-F07 Rank) from the Factors Drop Down, the Data Window is now programmed to read the Factor Name for that F-Slot Number from the FactorBreakout table in the connected to J2 file – and display the factor name as part of the query results.

The objective is to make the query results easier to read.



BY RIDER, BY TRAINER, BY TRACK, etc.

I've also given the Data Window a bit of a facelift when it comes to displaying data By Rider, By Trainer, and By Track, etc.

In previous versions of the Data Window, when displaying data By Rider, By Trainer, and By Sire, etc. - names for riders, trainers, and sires, etc. were truncated in the breakout data if the names were too long to fit into the results display.

I've widened the results display to accommodate the longest possible name that can be stored in the table (60 chars.) I've also added logic that detects the longest name found in the results - and from there adjusts the locations of the columns accordingly.

Again, the objective here is to make the query results easier to read.

## **UPR Tools**

### **What's New**

Starting with all versions of JCapper published Feb 02, 2021 and later:

The UPR Tools Expression Builder has a new menu item that lets you launch a Quick Grid for the current GroupName.

The Quick Grid is designed to let you quickly edit Factors, Behaviors, and Weights, for the current GroupName.

Operation is similar to that of the (original) Profile Table Interface. Click inside a cell to give that cell focus, edit the data in that cell, and use the Tab key to exit that cell. As the edited cell loses focus, the data in the just exited cell will appear to 'jump' as the interface writes the new data directly to the table.

--*Hint:* Use the MLR Quick Start Tool to write a bunch of default factors, behaviors, and weights to the ImpactValues table.

From there, bring up the Quick Grid - and edit the Factors, Behaviors, and Weights accordingly.

Double check your work by reviewing the Factors, Behaviors, and Weights in the Quick Grid.

When you are done x-out of the Quick Grid and x-out of the Expression Builder *without* hitting the Propagate Button.

At this point you are done.

*Your GroupName is complete. You can also bring up the Expression Builder at any time and select the GroupName from the drop down to display it in full.*

I think you'll discover the Quick Grid is faster and easier than the individual Factor Templates when it comes to editing a bunch of factors within a GroupName.

## **SQL Factor Setup Tool**

### What's New

Starting with all versions of JCapper published Feb 02, 2021 and later:

### Screen Four (The Detail Screen) now has a Cleaner Look

I've given Screen Four of the Factor Setup Tool a facelift. In previous program versions, many of the factor names were being truncated because the textboxes were too narrow to display the full factor names.

In the latest version of the program - I made the textboxes wider - so you can easily see the full factor names at a glance.

I also added a Display Gap checkbox to the center detail settings area for each factor.

This means (for factors where you see fit) you now have the ability to display Factor Gap (instead of Factor Numeric Value) right on your SQL Html Report.

--*Hint*: This can be useful if you are using the Data Transformations Setting and you want to see decimal win likelihood estimates for selected factors on your SQL Html Report.

## SQL Factor Setup Tool Screen Five Contender Line Setting

I've added a new drop down to Screen Five of the SQL Factor Setup Tool.

The Contender Line Drop Down enables you to Save a Contender Line Setting to your SQL Factor Setup.

Options include various permutations of Color, FieldSize, and RV.

*Examples:*

*Color=RED, (FieldSize/2) - 1*

*Color=BLUE, (FieldSize/2) + 1*

*Color=LIME, (RV/9) - 1, etc.*

**IMPORTANT!** – The Contender Line Setting is designed to work after you've satisfied two requirements:

1. You've checked the Active checkbox for Race Level Sorting.
2. Your SQL Expression in the Race Level Sorting pane on the right-hand side of Screen Five includes an ORDER BY clause that causes the horses in each race to be sorted by the factor of your choice.

Examples:

1. You've selected one of the *(FieldSize/n)* options from the Drop Down and your Order By Clause is something like "ORDER BY UPR DESC" (without the quotes) which causes the horses in each race to be sorted by UPR from highest to lowest.

Here, the Interface is going to draw a colored line just below the midpoint of the field in terms of FieldSize – and your implied 'Contenders' are all horses ABOVE the line.

2. You've selected one of the (*RV/n*) options from the Drop Down and your Order By Clause is something like "ORDER BY UPR ASC" (without the quotes) which causes the horses in each race to be sorted by UPR from lowest to highest.

Here, the Interface is going to draw a colored line just above the midpoint of the field in terms of RaceVolatility – and your implied 'Contenders' are all horses BELOW the line. (Yes, below the line because you are sorting the horses in reverse order.)

Once you understand that: Operation is simple.

To create a Contender Line Setting: Select one of the available settings and hit the Save button.

To clear the setting: Select Contender Line None – and hit the Save button.

From there - during a SQL Calc Races, the Main Module will apply your Contender Line Setting – and draw a colored Contender Line bisecting the horses at your chosen point in each race.

The objective here is to help you recognize the 'Contdenders' in each race at a glance based on your Data Window and/or WagerHistory research.

## SQL Factor Setup Tool Screen Five UI

In previous versions of JCapper, you didn't have the ability to expand the textbox for Race Level Sorting located on the right-hand side of Screen Five of the SQL Factor Setup Tool.

This always bothered me because it meant I had to spend time playing around with the scrollbars in order to see my Race Level Sorting Order By Clause in its entirety.

Starting with all versions of JCapper published Feb 02, 2021 and later:

I've applied a code change to the SQL Factor Setup Tool's Screen Five Form\_Resize() event.

You now have the ability to grab the bottom right corner of Screen Five with your mouse – and from there – drag the edge of Screen Five (down/up and right/left) across the viewing area of your monitor – and in so doing – expand or shrink the size of Screen Five itself.

--*Hint*: When you do this you'll see that the textbox for Race Level Sorting located on the right-hand side of Screen Five expands or shrinks proportionately with Screen Five as you resize it.

The objective is to make it easier to see the Race Level Sorting Order By Clause in its entirety.

### **Who Should Install This Download:**

If you see an expiration date after you log into the JCapper Main Module – or if you want the latest published JCapper program version: *You should install this download ASAP.*

If you want to run the latest published version of JCapper Build 198: *You should install this download ASAP.*

### **Install Instructions:**

Close down all open JCapper program windows, log into the JCapper message board, navigate to the Build 198 program downloads page, and follow the instructions there to the best of your ability.

Enjoy,

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