Release Notes for the JCapper Platinum Build 198 ver 2.0 FULL program download released on 08-18-2021:

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

Check back later as I will be updating this write-up over the next few days as free time allows. *(Last updated: 08-20-2021 at about 4:30 pm pacific time.)*

What's Inside:

This download is a progress update for some of the new features I am working on for 2021.

However, my primary reason 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:

What's New

JCapper Installer

JCapper Installer UI - Starting with all versions of JCapper published Aug 18, 2021 and later, the JCapper Installer has a new look.

I changed the UI (user interface) so that the clickable elements are arranged (top to bottom) to fit the steps you perform – or workflow.

From top to bottom:

The Install Instructions are at the very top. The clickable checkboxes are next. After that, the big Install JCapper button.

I also added launch buttons for the stand alone JCapper.mdb and JCapper2.mdb File Import Modules.

Operation is nearly identical to the old Installer. My hope is that first time users will find the new Installer a little less intimidating and easier to work with.

--end New Installer UI section

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JCapper Main Module

New Main Module FileName - Starting with all versions of JCapper published Aug 18, 2021 and later, the JCapper Main Module has a new filename.

The new FileName for the JCapper Main Module is: JCapper_2021.exe

The old FileName for the JCapper Main Module was: JCapper_2005.exe

--end New Main Module FileName section

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TDx and NCall Factors

I think the latest program update brings the total number of TDx and NCall factors up to well over 100 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 above post from the Message Board and the JCapper Main Module in the latest program update:

Code Changes for TDx Factor Composites and Averages

The JCapper Main Module in the latest program update has a new algorithm that generates cleaner Composites and Averages for ALL of the TDx factors.

ALL of the TDx factors now give a *very clean* presentation in the data for Composites and Averages when you are looking at the win likelihood estimates in the gap data generated by the Data Transformations Setting.

In addition to what I've written above, the 08-18-2021 program update delivers some new TDx Factors – most notably those listed as TDX_PACESTRETCH_ and TDX_WOFAST_ on the Available Factors Drop Down on Screen One of the SQL Factor Setup Tool. (Learn more about those new factors below.)

Where to Find TDx Factors

All of the supported TDx Factors can be found on the Available Factors Drop Down located on the left-hand side of Screen One of the SQL Factor Setup Tool.

Using a TDx Factor is no different than any other factor. Bring up Screen One of the SQL Factor Setup Tool. Follow the steps from the SQL Factor Setup Tool Help Doc to assign an individual TDx Factor to one of the 35 F-Slot #'s in your SQL Factor Setup.

Link to the SQL Factor Setup Tool Help Doc:

http://www.jcapper.com/Article_AddJRating.html

You can also use the subsequent screens of the SQL Factor Setup Tool to display numeric value, rank, and gap for individual TDx Factors on your SQL Html Report – as well as in the SQL Html for each horse embedded in your JCapper Past Performances.

Once a TDx Factor has been assigned to one of the 35 F-Slot #'s, you can use that TDx Factor in a SQL UDM by referencing the F-Slot # itself.

For example:

```
AND RANKF07 = 1
```

If you are running JCapper Platinum, you can also use any of the supported TDx Factors as inputs (using any of the supported Behaviors including 3 Translate which is probably the easiest way to get started) in your GroupNames for UserFactors and UPR.

As of this writing (April 05, 2021) I haven't yet finished the programming to make the 'handles' for TDx Factors display on the Factors Drop Downs in UPR Tools.

That's Ok.

Be advised you have the ability to 'grab' any TDx Factor and use it in a GroupName by carefully typing the Factor Name into the Factor field on a UPR Tools screen or grid *(exactly as that TDX Factor Name appears on the Available Factors List on the left-hand side of Screen One of the SQL Factor Setup Tool.)*

About the Default 120 Day Half Life for TDx Factors

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

User Defined Half Life

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

I'm currently working on implementing User Defined Half Life for every one of the TDx and TDx NCall factors in JCapper.

If you look under the hood, you'll discover the 04-05-2021 program update has a few changes geared towards making that happen:

1. The JCapper2.mdb file in this download contains a HalfLife table. The new table contains table structure that, when properly populated, and after I get all of the programming done – will enable you (in a future program update) to define, edit, save, and delete a User Defined Half Life for all of the TDx and TDx NCall factors in JCapper.

2. Screen One of the SQL Factor Setup Tool in this download has a User Defined Half Life button. Clicking this button launches a new screen called the User Defined Half Life Screen.

The User Defined Half Life Screen presents you with a UI that enables you to define, edit, save, and delete a User Defined Half Life for all of the TDx and TDx NCall factors in JCapper.

The UI also has built-in Quick Start functionality that enables you to propagate User Defined Half Life out to user defined groups of TDx and TDx NCall factors.

Two Very Important Notes about this:

1. The User Defined Half Life Screen in the 08-18-2021 program update is fully operational. You can actually use it to read-write-edit-delete User Defined Half Life to/from the HalfLife table as described above.

2. Be Advised, the Main Module in the 08-18-2021 program update currently supports User Defined Half Life for a limited number of factors:

TDX_FIELDSIZE_1BK

TDX_FIELDSIZE_BEST10

TDX_FIELDSIZE_COMP

TDX_PACESTRETCH_1BK

TDX_PACESTRETCH_BEST10

TDX_PACESTRETCH_AVG

TDX_PACESTRETCH_COMP

TDX_PACESTRETCH_DIST_1BK

TDX_PACESTRETCH_DIST_BEST10

TDX_PACESTRETCH_DIST_AVG

TDX_PACESTRETCH_DIST_COMP

TDX_PACESTRETCH_SURF_1BK

TDX_PACESTRETCH_ SURF_BEST10

TDX_PACESTRETCH_ SURF_AVG

TDX_PACESTRETCH_ SURF_COMP

TDX_PACESTRETCH_TRACK_1BK

TDX_PACESTRETCH_ TRACK_BEST10

TDX_PACESTRETCH_ TRACK_AVG

TDX_PACESTRETCH_ TRACK_COMP

TDX_PACESTRETCH_WETDRY_1BK

TDX_PACESTRETCH_ WETDRY_BEST10

TDX_PACESTRETCH_ WETDRY_AVG

TDX_PACESTRETCH_ WETDRY_COMP

TDX_WOFAST_1BK

TDX_WOFAST_ BEST10

TDX_WOFAST_ AVG

TDX_WOFAST_ COMP

Obviously I still have a LOT of programming hours ahead of me before User Defined Half Life for all 120+ of the TDx and TDx NCall factors becomes a reality.

But since I *had to publish a program update anyway* in order to deliver user logons to new customer sign ups – I decided to include User Defined Half Life in its current state - so I could keep you updated as to where future program development for User Defined Half Life is headed.

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

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

Instead, he always advocated using time decay factors, along with other factors, as inputs to create a fundamental model.

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

<u>--end TDx and TDx NCall Factors section</u>

<u>jp.</u>

Betting Instructions - Exponential Calibration

Starting with all versions of JCapper published 04-05-2021 and later, the Main Module, SQL UDM Plays Report Module, and Past Performance Generator all support Exponential Calibration keyed into the Betting Instructions field on the Modify Screen in the UDM Wizard.

Background Info

A traditional oddsline or strike price formula looks like this:

OL = (1/ProbEstimate) − 1

Exponential Calibration involves introducing an exponent to the above formula to transform the slope of the curve.

The revised strike price formula looks like this:

$$StrikePrice = (1/ProbEstimate^\wedge Exponent) - 1$$

Basic Operating Instructions:

1. You'll first need to set the Data Transformations Setting in your Enhanced Settings Module to ON. This transforms gap for every factor in the program to a decimal value between 0 and 1 based on a percent of race total distribution for that factor.

Doing this makes it possible to use factor gap as a (ballpark) win likelihood estimate.

2. Bring up the Data Window, and select one of your better SQL UDMs from the SQL Expression Tool.

3. Paste the following into the sql expression driving your UDM:

$$AND\ ODDS >= (1/GAPUPR^\wedge 1) - 1$$

4. Execute the revised sql expression and take note of the query results.

5. Edit the exponent up or down from 1 to something like 1.025 or 0.975, execute the revised sql expression, and take note of the query results.

6. If the revised query results from step 5 above generate improvement from the query results observed in step 4 above:

7. Keep moving in the same direction – make a (small) incremental change to the exponent prior to hitting the Execute button.

If decreasing the exponent by a small amount (0.025 or 0.05) produces an improvement vs. the previous query results: Decrease the exponent by a further small incremental amount, execute the revised sql expression, and take note of the new query results.

If increasing the exponent by a small amount (0.025 or 0.05) produced an improvement vs. the previous query results: Increase the exponent by a

further small incremental amount, execute the revised sql expression, and take note of the new query results.

7. Keep repeating steps 6 and 7 above until you reach the (approximate) point where total returns appear to be maximized for your sql expression.

8. Don't be afraid to test the exponent in both directions (up and down) and don't be afraid to try supported factors other than gapUPR.

It may take several dozen tries in either direction before you start to dial things in for a given UDM --

The objective is to seek and identify the (approximate) point where total returns appear maximized for your sql expression – and from there – key the Factor Handle you are using along with the Exponent into the Betting Instructions field on the Modify Screen of the UDM Wizard so that:

1. The Main Module can calculate the (approximate) strike price where returns are maximized for the SQL UDM during a SQL Calc Races, and write the calculated strike price to the UDMPlays table.

2. The UDM Strike Price can be displayed as part of the Betting Instructions on your SQL Html Report, on the SQL UDM Plays Report, and in the SQL Html embedded into your JCapper Past Performances.

Supported Factors

Starting with all versions of JCapper published 04-05-2021 and later, the following factors can be used for Exponential Calibration:

All 35 F factors: gapF01, gapF02, gapF03, etc.

Plus: gapJPR, gapJPRMLProb, gapAlchemy, gapPRating, gapQRating, gapUPR, gapUPRMLProb, UPROpinionProb, and UPRZScoreProb.

Also, those of you who are JRating enabled will be able to use gapAprob.

Requirements

Data Transformations Setting in the Enhanced Settings Module set to ON.

Valid factor handle, hat character to indicate an exponent, and the numeric exponent itself keyed into the Betting Instructions Field on the Modify Screen of the UDM Wizard.

Example:

gapUPR^0.325

Another:

gapF17^1.025

Another:

gapAlchemy^0.675

Another:

gapJPRMLProb^0.975

Final Notes

1. Be sure you do NOT accidentally save the oddsline constraint from your sql expression in the Data Window as part of your final sql UDM Definition in the UDM Wizard.

Otherwise the UDM will never fire when you run a Calc Races because the odds aren't known in that part of the program.

2. Exponential Calibration isn't something you set just once and forget about. Imo, best practice involves a testing process that is ongoing.

Remember that the game itself is constantly evolving. New public betting trends emerge all the time. As a result, you should expect your exponents to change along with the game.

<u>--end Exponential Calibration section</u>

<u>jp.</u>

Betting Instructions – Embedded Command Text

Background Info

All versions of JCapper Build 198 published over the last few years also support Embedded Command Text keyed into the Betting Instructions field of the Modify Screen in the UDM Wizard.

Embedded Command Text involves two elements:

1. Valid Command Text

2. Numeric Multiplier

List of Valid Command Text Codes

```
      Code  Strike Price Calculation
----------  ----------------------------------------------------
      DVSR  MinOdds = FieldSize / Multiplier
      EML1  MinOdds = Odds where eJPRMLProb = Multiplier
      EML2  MinOdds = Odds where eUPRMLProb = Multiplier
EJPRMLPROB  MinOdds = Odds where eJPRMLProb = Multiplier
EUPRMLPROB  MinOdds = Odds where eUPRMLProb = Multiplier
        EU  MinOdds = Odds where eUPROpinionProb = Multiplier
        EZ  MinOdds = Odds where eUPRZScoreProb = Multiplier
     MLOR1  MinOdds = MLine x Multiplier
       MIN  MinOdds = Multiplier Text
```

Basic Operating Instructions

Adding Embedded Command Text to the BettingInstructions Field of a UDM is easy:

1. Key a valid Command Text Code into the BettingInstructions Field on the Modify Screen of the UDM Wizard and press the SpaceBar.

2. Key a numeric Multiplier to the right of the Command Text Code.

3. Make sure there is a single space between the Command Text Code and the Muliplier. Then click the Save Button.

That's It!

Example: EZ 0.975

In the above example: EZ is Valid Command Text for eUPRZScoreProb and 0.975 is the multiplier.

During a Calc Races, the Interface recognizes EZ as valid Command Text and calculates the Min Odds Strike Price or point in the odds where eUPRZScoreProb becomes 0.975 or higher.

The Interface then displays the Min Odds Strike Price as part of the Betting Instructions to the right of the UDM Name on the Html Report, the Text Report, the SQL UDM Plays Report, and in the JCapper Numbers Table embedded in SQL Mode JCapper Past Performances.

--end BettingInstructions Embedded Command Text section

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Database Builder UI

Build Database by Date Range Menu Item

In previous versions of JCapper, you didn't have the ability to recover gracefully when an error occurred during a Build Database routine. Your best recovery path involved identifying then replacing or deleting the offending data or results file – followed by rebuilding the quarterly folder from scratch – or alternately – deleting specific records from the StarterHistory Table, running a compact and repair on the J2 file, then creating a one-time use folder for that day's files – and building the one-time use folder in Mode 4.

Granted, errors from bad data or results files rarely happen – but they are annoying as *you know what* when they do happen.

Starting with all versions of JCapper released 08-18-2021 and later, the Database Builder Screen has a Build Database by Date Range Menu Item.

Operation is simple. Click the Menu Item to bring up a Calendar Control. Select a Start Date, an End Date, and hit the Apply button. At this point your Start and End Dates will display on the face of the DB Builder – and the next DB Build routine you run will be limited to only those data and result files where the internal race date in the file falls within your specified date range.

No, this doesn't eliminate errors that result when bad Equibase data makes it into a file – but it does make the recovery process a little easier by eliminating the need to rebuild an entire quarterly folder from scratch – or having to create a separate one-time use folder for that day's files.

After you've identified and corrected the offending files – and after you've deleted the needed records from the bad DB Build from the StarterHistory Table – you should be able to recover smoothly by continuing to run DB Builds using daily Date Date Ranges in Mode 4 on the quarterly folder – until such time as it's convenient for you to rebuild the entire quarterly folder from scratch (without a date range) in Mode 4.

Hopefully, the Build Database by Date Range Menu Item is something you'll never need to use. But it's a nice thing to have if and when the need arises.

Form Resizing

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 February, 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.

New Class Descriptor Table

(JCapper Main Module, HDW File Mgr, Data Window, and PPs Generator)

About a week ago I was looking at Data Window Query Results for the first several weeks of 2021 with the data broken out by Class Descriptor. I noticed (what I saw as) a higher than normal number of races being categorized as Class Descriptor Unknown.

I took a close look at the data (01-01-2021 to 02-14-2021) and discovered the following:

19 races with 131 starters listed as MOC (Maiden Optional Claiming) in the Equibase Data - classified by the Data Window as Class Descriptor Unknown.

4 races with 33 starters listed as TRL (Stakes Trial) in the Equibase Data - classified by the Data Window as Class Descriptor Unknown.

I bit the bullet and rewrote the algorithm in JCapper that identifies Class Descriptors. Starting with all versions of JCapper published 02-23-2021 and later, the new Class Descriptor Table is as follows:

```
Code    Description
----    --------------------------------
   0    *  (Unknown)
   1    C  (Claiming)
   2    CO (Claiming Optional)
   3    M  (Maiden Claiming)
   4    MO (Maiden Optional Claiming)
   5    S  (Maiden Special Weight)
   6    R  (Starter Allowance)
   7    T  (Overnight Handicap)
   8    A  (Allowance)
   9    AO (Allowance Optional Claiming)
  10    TR (Stakes Trial)
  11    N  (Non Graded Stakes)
  12    G3 (Grade 3 Stakes)
  13    G2 (Grade 2 Stakes)
  14    G1 (Grade 1 Stakes)
```

IMPORTANT NOTES:

The new Class Descriptor Table contains the following changes:

1. MO (Maiden Optional Claiming) now gets its own category.

2. TR (Stakes Trial) now gets its own category.

3. G1-G2-G3 now displayed individually in the Data Window as opposed to being grouped together as G (Graded Stakes.)

4. To take advantage of these changes:

    a. Consider using the new HDW File Mgr from the latest program update to rebuild .JCP and .XRD files for the past several quarters.

    b. After that, use the new Main Module from the latest program update to rebuild databases for those same past several quarters.

    c. After that, use the Data Window from the latest program update to look at the data – and adjust UDMs, UserFactors, and UPR accordingly.

    d. Alternately, an easier path might be to rebuild .JCP files, .XRD files, and databases for Q1_2021 only – and go forward from there.

--end New ClassDescriptor Table section

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HDW File Mgr

Handling of Race Off Times after Midnight Eastern Time – On the morning of Wed Aug 03, 2021 while processing the previous day's chart files in the HDW File Mgr I received an error message for ASD R8.

While tracking down the root cause I realized:

Race Off Time for R8 at ASD on Tues night Aug 02, 2021 was listed in the Equibase Chart Data as 1:15 am Eastern Time. Just so you know, because Equibase is located in Lexington, KY which is located in the Eastern Time Zone – ALL race off times in the Equibase data are listed as hours and minutes Eastern Time.

The Function in the source code of the HDW File Mgr that writes race off time to the ChartRaces Table in the JCapperSDK.mdb File contains a code block that resolves Equibase Race Off Time (in this case 1:15 am Eastern) back to the local timezone of the Track where the race was run.

ASD is located in Winnipeg, Manitoba.

Right now Winnipeg is -5 hrs GMT. The resolved time returned by my source code was -1:15 (not a valid time.) But this was in fact the value I wanted the resolved time to be - the negative number indicating the actual DateTime of the race off had occurred on a different date than the race date in the data file.

Continuing on - the line of code immediately beneath that was simply taking the race date (in this case 08-02-2021) and appending the resolved race off time (in this case -1:15) to get "08-02-2021 -1:15" without the quotes as the race off time.

When the very next line of code tried to write "08-02-2021 -1:15" without the quotes to the PostTime field of the ChartRaces Table: That raised a Type Mismatch Error because "08-02-2021 -1:15" without the quotes is not a valid DateTime.

I spent a few minutes writing a few lines of new code to identify/trap the rare case where a race goes off after midnight eastern - add one day to the race date while keeping the race off time the same – write the original race date to the RaceDate field in the ChartRaces Table (in this case 08-02-2021) – and write the adjusted DateTime (in this case "08-03-2021 1:15" without the quotes) to the PostTime field in the ChartRaces Table.

After that, I reran an XRD File Build routine for ASD0802 – and everything went smoothly.

Sorry for the long drawn out explanation.

There are only a handful of races each year that go off after midnight eastern.

Starting with all versions of JCapper published 08-18-2021 and later – you'll have an HDW File Mgr capable of writing data for them to the ChartRaces Table.

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Handling Data for both AQU Turf Courses

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 February, 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.

-jp.

--end HDW File Mgr section

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Enhanced Settings Module

What's New

Starting with all versions of JCapper published Aug 18, 2021 and later:

The Enhanced Settings Module contains the following new settings:

HDW Pace Fig, Str 806-815 V4 Setting

The HDW Pace Fig, Str 806-815 V4 Setting controls the pace fig type inserted into fields 806-815 of your V4 .JCP files.

The HDW Pace Fig, Str 806-815 V4 Setting has the following options:

0 Default – 10f Pace Fig – This option is the original program Default and inserts HDW 10f Pace Figs (when available based on race distance) into fields 806-815 of your V4 .JCP files.

1 Pace Fig, Stretch – This option inserts HDW Pace Fig, Stretch (instead of 10f Pace Figs) into fields 806-815 of your V4 .JCP files.

2 Pace Fig, Stretch & LT4ths – This option inserts HDW Pace Fig, Stretch (instead of 10f Pace Figs) into fields 806-815 of your V4 .JCP files – and horse number of lifetime 4th and 5th place finishes into fields 112 and 113 respectively.

3 Pace Fig, Stretch & LT4ths & Fast Work – This option inserts HDW Pace Fig, Stretch (instead of 10f Pace Figs) into fields 806-815 – inserts horse number of lifetime 4th and 5th place finishes into fields 112 and 113 respectively – and inserts HDW's Fast Workout Indicator into fields 706-715 of your V4 .JCP files.

Note that there are plusses and minuses to each of the setting options.

If you find yourself specializing in longer routes (10f, 11f, 12f, etc.) you can likely make use of the 10f pace figs – and you might want to stick with the program default.

Otherwise, because very few races are run at long enough distances to even have a 10f pace call – you might consider option 3 – which gets HDW Pace Fig, Stretch, the horse's lifetime number of 4th and 5th place finishes, and

HDW's Fast Workout Indicator into your .JCP files – which in turn enables you to:

1. Display HDW Pace Fig, Stretch in your JCapper PPs.

2. Add the new TDX_PACESTRETCH factors to your SQL Factor Setup.

3. Use the new TDX_PACESTRETCH factors in your UserFactor and UPR GroupNames.

4. Display HDW's Fast Workout Indicator in your JCapper PPs.

5. Add the new TDX_WOFAST factors to your SQL Factor Setup.

6. Use the new TDX_WOFAST factors in your UserFactor and UPR GroupNames.

7. Use any new factors I might develop down the line that use the horse's lifetime number of 4th and 5th place finishes as inputs.

Q. What is an HDW Pace, Stretch Fig?

A. This is an HDW pace fig based on velocity from the start call to the stretch call.

Q. What is HDW's Fast Workout Indicator?

A. This is a True/False indicator for each workout. A value of True indicates that workout was among the fastest 10 percent of all works at the track-surface-distance for the 365 days leading up to the date of that workout. A value of False indicates the workout was not among the fastest 10 percent.

PPs Display Company Line, and HWt Setting

This Enhanced Setting controls Yes/No display of the four factors below in the running lines of your JCapper Past Performances:

Company Line – Horsenames of the Top Three Finishers

SR+TV – DRF Style Speed Rating and Track Variant

HWt – Weight of the Horse (when available)

PaceStr – HDW Pace, Stretch Fig

Currently as I type this, there are 16 available settings options – one for every possible permutation (4X4) of the factors involved. To display or not display one of the above four factors – select the appropriate option from the drop down for this setting – and click the Save button.

Prob Expressions Observations Count Adjustment Setting

The Prob Expressions Observations Count Adj Setting has two options:

0 Prob Expressions Obs Ct Adj - OFF – This option is the original program Default. It causes Prob Expressions Horse Scoring to ignore the number of observations in the data.

1 Prob Expressions Obs Ct Adj – ON – This new option was added to JCapper Platinum for 2021. It causes Prob Expressions Horse Scoring to be adjusted in a statistically valid way for the number of observations in the data.

--Hint: Consider turning the Prob Expressions Observations Count Adjustment 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 you are primarily interested in using Prob Expressions Rank in your UDMs.

Rider Changes Master ON Button

The Rider Changes Help Doc on the Help Docs Page at JCapper.com goes into detail about the four separate settings on the Enhanced Settings Module that need to be toggled ON in order to get Scratch BOT to Parse Rider Changes from the XML.

New users often ask: *Why can't there be just one setting instead of four?*

As a result I've added a Master ON button to the Enhanced Settings Module just above the Rider Changes Setting.

Click the Rider Changes Master ON button and you will get a prompt asking if you want to toggle all four 'Parse Rider Changes from the XML' settings ON at once. Answer Yes at the prompt – and the Interface toggles all four settings ON at once – followed by a confirmation prompt telling you to hit the Save button.

Fast. Easy. Intuitive.

XRD File Build Mode Setting

I created a new setting for those of you who want to generate .XRD files formatted as 127 columns per horse record for use in third party programs.

The XRD File Build Mode setting has two options:

0 - Default XRD File for JCapper 254 Cols (OFF) – This option is the original program Default. It causes .XRD Files generated by the HDW File Mgr to be formatted as 254 Columns per horse record. Use this option when you want to create .XRD files for building JCapper Databases.

1 - XRD File for Other Programs 127 Cols (ON) - This is a new option added to all versions of JCapper published 02-23-2021 and later. It causes .XRD Files generated by the HDW File Mgr to be formatted as 127 Columns per horse record. Switch this option ON when you want to create .XRD files for third party programs expecting .XRD files that have 127 columns per horse record.

Switch back to the 0 Default setting when you want to create 254 column .XRD files for building JCapper Databases.

NOTE:

Currently (as of this writing on Feb 23, 2021) you absolutely *can* use JCapper to build JCapper Databases using .XRD Files formatted as 127 columns per horse record.

Just keep in mind that in a future JCapper Program Update – there will likely come a time when I decide to insert new data items into fields 127 and higher which are reserved for future use. *That is why I recommend you stick with the 0-Default 254 Column setting unless you need to build XRD Files formatted as 127 columns per horse record for use in a third party program.*

--end Enhanced Settings Module section

jp.

JCapper Past Performance Generator

Starting with all versions of JCapper published Aug 18, 2021 and later, the JCapper PPs Generator is programmed to recognize the new options in the Enhanced Settings Module for the following two settings:

1. HDW Pace Fig, Str Setting 806-815 V4 – This setting controls whether or not the HDW File Mgr inserts data for HDW PaceStretch Figs into fields 806-815 of your V4 .JCP Files. This setting also controls whether or not HDW's Fast Workout Indicator is inserted into fields 706-715 of your V4 .JCP files.

2. PPs Display Company Line, and HWt Setting – This setting controls whether or not the PPs Generator displays Company Line, Horse Weight, and HDW PaceStretch Fig for each running line.

Display of Custom Data Points in JCapper PPs

Two Rules:

1. You have to select and persist a settings option that inserts the data point into your V4 .JCP Files.

2. You also have to select and persist a settings option that toggles display of the data point ON.

Display of HDW PaceStretch Figs in JCapper PPs

Two Rules:

1. You have to select and persist an HDW Pace Fig, Str 806-815 V4 Settings option (1, 2, or 3) that inserts HDW PaceStretch Figs into your V4 .JCP Files.

2. You also have to select and persist one of the PPs Display Company Line, and HWt Settings options (12, 13, 14, or 15) that toggles display of HDW PaceStretch Figs ON.

When Display of HDW PaceStretch Figs is toggled ON:

The PPs Generator will insert a column header bearing the letters STR between the column headers for E2 and F3 – and beneath that – display the HDW PaceStretch Fig between the E2 and F3 PaceFigs in the horse's past running lines.

Display of HDW's Fast Workout Indicator

Two Rules:

1. You have to select and persist the HDW Pace Fig, Str 806-815 V4 Settings option (3 Pace Fig, Stretch & LT4ths & Fast Work) that inserts HDW's Fast Workout Indicator into fields 706-715 of your V4 .JCP Files.

2. Option (3 Pace Fig, Stretch & LT4ths & Fast Work) also toggles Display of HDW's Fast Workout Indicator ON.

When Display of HDW's Fast Workout Indicator is toggled ON:

The PPs Generator will append a pair of red hashtag characters ## immediately to the right of any workout in a horse's past performance record that qualifies as an HDW Fast Workout (top 10% for the track-surf-distance over the 365 days leading up to that work.)

Final Note

The correct Enhanced Settings must be persisted before your V4 .JCP Files are built.

Older V4 .JCP Files built prior to creation of these setting will not have HDW PaceStretch Figs inserted into fields 806-815. Nor will they have HDW's Fast Workout Indicator inserted into fields 706-715.

However, you do have the ability to rebuild older V4 .JCP Files and have HDW PaceStretch Figs and HDW Fast Work Indicators inserted into the correct fields.

After rebuilding older V4 files – you then have the ability to load those rebuilt files into the PPs Generator and see both HDW PaceStretch Figs and HDW Fast Workout Indicators.

<u>--end Past Performance Generator section</u>

<u>jp.</u>

The Data Window

What's New

Starting with all versions of JCapper published February, 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.

New Class Descriptor Table

Starting with all versions of JCapper published 02-23-2021 and later, the Data Window displays a new Class Descriptor Table for query results broken out by Class Descriptor.

--*Hint*: Read the Main Module section (above) for complete discussion about the new Class Descriptor Table and what you should consider doing if you want to incorporate the new Class Descriptors in your UDMs, UserFactors, and UPR.

The new Class Descriptor Table is as follows:

```
Code    Description
----    ---------------------------------
   0    *   (Unknown)
   1    C   (Claiming)
   2    CO  (Claiming Optional)
   3    M   (Maiden Claiming)
```

```
 4    MO (Maiden Optional Claiming)
 5    S  (Maiden Special Weight)
 6    R  (Starter Allowance)
 7    T  (Overnight Handicap)
 8    A  (Allowance)
 9    AO (Allowance Optional Claiming)
10    TR (Stakes Trial)
11    N  (Non Graded Stakes)
12    G3 (Grade 3 Stakes)
13    G2 (Grade 2 Stakes)
14    G1 (Grade 1 Stakes)
```

NOTES:

The new Class Descriptor Table contains the following changes:

1. MO (Maiden Optional Claiming) now gets its own category.

2. TR (Stakes Trial) now gets its own category.

3. G1-G2-G3 now displayed individually in the Data Window query results as opposed to being grouped together as G (Graded Stakes.)

--end Data Window section

jp.

UPR Tools

New Behaviors for Factor P-Rank

Starting with all versions of JCapper published Aug 18, 2021 and later:

UPR Tools supports two new Behaviors for Factor P-Rank:

45.5 – Factor P-Rank

55.5 – Log(Factor P-Rank)

About Factor P-Rank

Based on my own experience running exported JCapper Data through some of the stat packages in r (mlogit, mnlogit, survival, etc.) for some of my exported datasets - the logistic regression packages in r have a difficult time recognizing significance when evaluating raw (untransformed) factor rank.

In an effort to overcome that – I created an algorithm that uses factor rank and field size as inputs - and transforms factor rank to a win likelihood estimate between 0 and 1 that I called P-Rank (or Probability-Rank) as the output.

After testing it --

The logistic regression packages in r appear to have an easier time recognizing significance when evaluating transformed factor rank (P-Rank) vs. evaluating raw (untransformed) factor rank.

As a result - I created new Behaviors in UPR Tools for Factor P-Rank and Log of Factor P-Rank.

I also added Factor P-Rank as a clickable Default on the Data Transformations Tool in the JCX File Exports Module.

--end Behaviors for Factor P-Rank section

jp.

The Quick Grid

Starting with all versions of JCapper published February, 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.

--end UPR Tools section

jp.

SQL Factor Setup Tool

What's New

Starting with all versions of JCapper published February, 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.

Display of Factor Gap on the SQL HTML Report

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 February, 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.

Past Performance Generator

What's New

Starting with all versions of JCapper published Feb 23, 2021 and later:

Display of Factor Gap for SQL HTML embedded in JCapper PPs

--*Hint*: Read about Display of Factor Gap on the SQL HTML Report in the Factor Setup Tool section (above.)

<u>If you are operating JCapper in SQLMode</u>: You don't have to do anything special with the Past Performance Generator in order to display Factor Gap as part of the individual horse html embedded in your JCapper PPs.

Once you've got Factor Gap displaying on your SQL Html Report as a result of the display settings you've persisted on the Detail Screen in the SQL Factor Setup Tool:

Factor Gap will display automatically as part of the individual horse html embedded in your JCapper PPs – just like it does on your regular SQL Html Report.

Note: This feature didn't make into the Feb 02, 2021 program update. (I wasn't able to get the programming done in time.)

DFM Card Loader

What's New

Starting with all versions of JCapper published Feb 23, 2021 and later:

Cleaner Drag and Drop, File Load, and File Clear Event Processing

I rewrote the Drag and Drop, File Load, and File Clear routines in the DFM Card Loader. The objective behind this effort was to cut the number of (annoying) pop-up messages after each individual part of a Drag and Drop, File Load, or File Clear has completed.

Now, instead of giving the user a separate pop-up message for each folder during a drag and drop, load files, or clear files event:

At the end of each step the DFM Card Loader UI gives you a single message displaying info for all three folders.

Faster. Cleaner. Less annoying.

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,

-jp

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