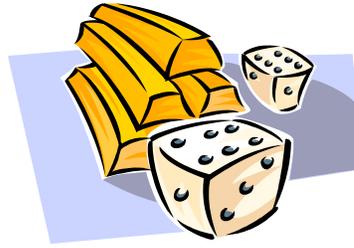


# TurboTracker



## TurboTracker™ Help And Info.

Hello fellow dice controllers. Here is our latest aid to help you keep track of your progress over practice and casino play. TurboTracker™ is a "frankenstein" of programs. Before I ran into Maddog's nifty "BoneTracker", I had written my own analysis application called Craps WorkBook. Once I saw Bonetracker, I saw the possibilities of adding some features I had planned, such as transposition (that is, you throw one set, but the software tells you your SRR as if you were throwing a different set). As it happens, Maddog has been very gracious with his code. As a result, I've taken some of Maddog's features and integrated them here.

As TurboTracker™ progresses in development I am moving away from spread-sheet based formulas and doing the calculations in Visual Basic for speed. Eventually, this may become a stand-alone program.

Right now TurboTracker™ is not available as a stand alone app, and does require you to have Microsoft Excel. It works on both a Mac and PC using Excel 2004 and 2003, respectively. It is being developed on a Mac, so it will run fine on a Mac with Excel 2004. TurboTracker™ is released as FREEWARE, which means you may distribute freely, but you may NOT copy, sell or use this for any commercial purpose. TurboTracker™ is copyright © 2005 By Dances With Dice, and the portions that Maddog wrote are copyright © 2005 by Maddog. All rights reserved, do not pass go, etc. etc.

TurboTracker is released as "Praise Me Ware™" - you don't owe me or Maddog any money, but you must praise us prior to using this software. Failure to do so will result in the unique copy protection scheme contained herein to cause all the little ones and zeros in your computer to come spilling out the firewire port, making a big mess for you to sweep up.

### FEATURES AND CHANGES:

#### New Features in 2.1

A few bug fixes, but mostly putting TURBO into Turbo Tracker! In this version the transpose and RSS algorithms have been rewritten to use arrays, and the result is that calculating pasted data now is about 25 times faster! In version 2.0, transposing 6000 rolls took about 45 to 50 minutes - now it takes well under 2 minutes!! Hope you like the new speedy response!

Because of the new speed, I've added more transposition sets, and expanded several pages as a result. There are now eight "USER" sets, which are presently blank, but are for whatever set you might want. NOTE: rename the set on the DICE SET DATA Page, and that name will propagate everywhere.

The main page now has more SRR info for more sets, and more streak info. Also, you'll see a new pair of columns LDie BACK and RDie BACK. These are for future use, where you enter not only the two result faces, but also the two side faces facing closest to you. From this, I hope to generate 3 dimensional axial results based on how your dice are landing (that is, a more affirmative assertion of if you are on the pitch or the yaw axis).

Also, I moved the main TOSSING dice set entry back to the main page. Enter the two TOP faces, and then enter EITHER the FRONT or the BACK, but not both. Again, FRONT is facing AWAY from you and BACK is facing TOWARD you.

#### New Features in 2.0:

## New Features in 2.0:

Main Page pitch and yaw results now indicate the percentage improvement over random.

**SET EVALUATION:** This is a brand new page that identifies your 4 best sets for any given number, as well as your 4 worst sets for any number.

**Dice Phase:** Now presenting "relative" dice phase - that is, how the right die performs relative to the left die. This is different than the more traditional "axis" metric, in that if both die Yaw the same amount, it is a 0 phase (primary), and secondaries are split between a forward 1/4 pitch (+90 degrees) and a backward 1/4 pitch (-90 degrees). Yaw is split into clockwise and counter clockwise, and tertiary (aka double pitch/double yaw) is indicated as 180 degrees.

**RSS page:** Now with a moving average of percentage of improvement.

**Stats Pages:** Now have consolidated the stats pages so that each shows 4 sets.

**MATH:** Where appropriate (mainly in Toss Stats and Transpositions), difference over random is now expressed as "percentage difference" in other words, if the random occurrence of a number is 5.6%, and the tossed occurrence is 6.4%, the percentage difference is 14.6%. Previously the math would have indicated the difference as 0.8% (subtracting 5.6 from 6.4).

I believe we are more interested in the percentage change over (or under) random, and not the raw difference.

**EV:** Added EV data and chart for each individual box number, and included the BUY for the 4/10 with pre-win vig, and the 4,5,9,10 buy with post win vig. This makes it easy to see signature numbers at a glance. Also expanded to include the 23V and 22HW sets. Also added an EV for the DON'T PASS.

**WAGER EXPLORER:** Here is the first iteration of Wager Explorer - it's lacking many of the planned features (such as press strategies), but does offer the basic functionality of showing you your actual wins/loss and max deficit for your roll data.

And Some important math and other bug fixes, including the chart problem, and math relating to some stats.

## New for 1.0:

- Transpositions are now contained in VBA, and are no longer cell formulas. The result is much faster calculations.
- There is a new Dice Set page where you set all of your dice sets, both for the your practice set and for your transposition sets. You no longer need to set all faces - now, you only need set the TOP and FRONT faces - the rest is automatic! Both LEFT and RIGHT oriented die are accommodated with a preference button.
- Transpositions and stats pages have been completely reworked to emphasize the concept of MOST CRITICAL DIE for the 1/4 Yaw axis sets, such as the 2V and 3V. With the 1/4 Yaw Axis sets, the Most Critical Die is the die that is most important to throw on axis - if your single die off axis results favor the left left die (i.e. you are more off axis with the right die), then the Most Critical Die should be on the left, as in the 2VL or 3VL sets.
- On the Roll Data pages, all columns of pasteable data are now grouped together for ease of use.

Other features:

- Tracks the last 6000 rolls, so as you go along, your earlier rolls are discarded, and your SRR is based only on your latest 6000 rolls. 6000 is statistically significant, and judging your SRR on a smaller sample is often unwise, unless your SRR is above 7.
- The main tracking page shows you your SRR, and transposes your SRR for several other dice set types, all in real time as you practice.
- The main tracking page shows your "Rolls Since Seven", along with your best and average RSS (The average RSS ignores streaks of zero - that is, more than one seven in a row).

\*Detailed pitch info, showing your overall on axis, your primary pitch, secondary pitch, tertiary pitch, left and

\*Detailed pitch info, showing your overall on axis, your primary pitch, secondary pitch, tertiary pitch, left and right yaw, primary yaw (that is, where both die yaw exactly the same) and tertiary yaw (where, like tertiary pitch, the two die yaw 1/2 rev away).

- Roll results and transpositions now uses conditional formatting, so you can see at a glance where your 7s are popping up.

- Serialized roll results that include session number, grip, set, date, rolling SRR, etc.

Things to do: There are also alot of features not in this version, including my "AutoBet" feature, which plays a basic betting strategy as you go along, showing you exactly how you are grinding the casino. Also, I will be adding the ability to calculate SRR and other metrics based on selected ranges of roll data, so you can see for instance how you did in sessions 12 thru 15 and ignore the other sessions.

Best of luck to you,

DancesWithDice

# USING TURBOTRACKER™

You may either paste existing roll data into the appropriate roll data columns on the ROLL DATA page, or use TurboTracker to enter the data as your practice, or from your written casino log.

**NOTE: All user data entry fields are LIGHT YELLOW ->**



Only change YELLOW FIELDS and be careful not to change fields of any other color.

## To enter by cut/paste:

- 1) Select your columns of LEFT and RIGHT Die from your existing record.
- 2) Press CMD+C (CTRL+C on windows)
- 3) Select the ROLL DATA page
- 4) Select the first field for the first left die result you want to enter (for instance, if you are starting with roll one, select field K26).
- 5) Paste it (CMD+V or CTRL+V)
- 6) Press Opt+Cmd+P to calculate the workbook. (Opt+Ctrl+P for Windows).

**IMPORTANT:** There can be **no gaps** in your roll data, or the calculations functions will not work correctly. This will be addressed in a future release, stay tuned.

## To enter using TurboRollEntry™:

- 1) Set your TOSSING DICE SET in the yellow boxes of the ROLL DATA sheet. And set your transposition sets on the DICESETDATA page. Be careful that you set your dice sets in here accurately, and stay with this dice set for this workbook or transposition WILL NOT WORK.
- 2) Set your session number or name in the roll data page.
- 3) Set your grip type. For instance, I use the 3 fingered front, so I put 3FF in this box.
- 4) Do NOT set the "Roll Marker" - this is to indicate where the next roll will be entered in the sheet. Once it reaches 6000, it goes back to 1. It's automatic and should not be touched.
- 5) Select the option for "Numeric Entry" or for "Mouse Entry".
- 6) On the Roll Data page, click the LOAD button, or press OPT+CMD+L (Opt+Ctrl+L Windows)
- 7) If you selected NUMERIC ENTRY Enter your roll as a 2 digit number - for instance if your LEFT die was a 3 and your RIGHT die was a 4, then enter 34. Then press RETURN or ENTER.

If you selected MOUSE ENTRY just click on the dice result - make sure you keep left and right straight here!

- 8) There will be a pause while all the sheets are recalculated. If you want to eliminate this pause, you can uncheck the "Calculate after every roll" checkbox before you start loading.
- 9) To end the loading at any time, click on the CANCEL button with your mouse. NOTE: Because of the way Excel handles the ESC key, if you press ESC to quit, you'll get an error message - but everything is fine. Click END on the error message if you get it. Also, you need to press F9 to recalculate the workbook if you get that error message.

## To clear all roll data:

- 1) Press OPT+CMD+X (Or OPT+CTRL+X on Windows).
- 2) The Roll Data page should appear.
- 3) A dialog box will ask if you want to clear all roll data. Click OK. This cannot be undone!!!

- 2) The Roll Data page should appear.
- 3) A dialog box will ask if you want to clear all roll data. Click OK. This cannot be undone!!!
- 4) Poof!!! All gone! Your GRIP and DICE SET are left alone.
- 5) Remember to enter a new session number before starting again.

## **OTHER:**

For transposition, you need to enter the die faces on the DiceSetData page. You only need to enter the TOP and FRONT die faces, then click "Calculate faces" to set the other faces automatically. You ALSO set the NAME of each dice set on the DICESETDATA page.

**I define the FRONT face as the face that points away from the front of your body, toward the stickman. I define LEFT as your left when holding the die to throw.**

## **Dice Transposition Sets - DiceSetData sheet**

Here is where you set the various sets you want to use for transposition. NEW: your MAIN dice set (that is, the dice set you practice with) should now be set on the ROLL DATA PAGE - DO NOT SET IT HERE!

The set I use for practice is 55 TOP and 44 FRONT. I define front as the side of the dice facing away from your front, toward the stickman, in other words if someone were to see the front of your body, they'd also see the front of the dice.

This is a hardway set that is not as useful for seven avoidance as the 2V or 3V for the experienced shooter, but this hardway makes off axis throws very obvious (and 1 or 6 is off axis). Thus, this is an excellent set for practice. With transposition, I can see how I'm doing with any number of other sets.

You'll notice that the 1/4 yaw sets such as the 2V and 3V have a 2VL and 2VR - this is because these sets respond differently depending on the placement of the MOST CRITICAL DIE on the left or right - you'll see that unless your left/right axial/pitch phase results are exactly equal, the difference can be as much as a 1 SRR (i.e. a 7 vs a 6 SRR). (NOTE: In TurboTracker, we align the Most Critical Die for SEVENS, which is sometimes different than the Most Critical Die for BOX NUMBERS.)

In the 2VL/3VL, the most critical die is on the LEFT. And obviously it's on the right for the 2VR set.

NOTE: The 2VL and 2VR sets are the ones used for the 1/4YL and 1/4YR SSR on the Roll Data page.

As with everything in TurboTracker, change ONLY the YELLOW fields (top and front). After changing the dice sets, then click the "CALCULATE SETS" button, and the other faces will be automatically calculated.

This calculation is dependant on the DIE TYPE, and if you look to the left, you'll see two option buttons beneath two types of die. The LEFT/A type is the one most often found in Vegas casinos. the 1-2-3 is counter clockwise (i.e. to the left). Before clicking the "Calculate sets" button, make sure that the DIE TYPE is properly selected for the kind of die you use. It will most likely be L/A TYPE.

For a bit more on die types, see: <http://mathworld.wolfram.com/Dice.html>

### **Common Sense with the FRONT and the BACK.**

There is quite some controversy on which die side to call the FRONT and which side to call the BACK. I prefer the common sense approach.

"Common sense" as far as I'm concerned equates the position of the dice how they are thrown, relative to the position of your body.

The FRONT of a car is the part that points forwards when you are driving.

The FRONT face of dice are the faces that point FORWARDS when you are throwing them.

The FRONT face of dice are the faces that point FORWARDS when you are throwing them.

Any other interpretation is counter intuitive. If you call a grip the "3 finger front" yet your 3 fingers are on what you are really calling the "back" what sense is that?

Other authors, including Sharpshooter, describe the front as I do.

If you want to describe a set using the faces you see, then it's probably better that it be described as:

### **33 Top, 15 Back.**

TurboTracker now accommodates either description for your tossing set - you can enter the TOP, and then either the FRONT or the BACK, depending on how you prefer to think of the arrangement. But if you are thinking of the side faces you see, the ones closest to you, the NEAR faces, these are the "BACK" faces relative to the direction you are throwing the dice. And These are the "BACK" faces relative to your body, using the common english definitions of FRONT and BACK. From the dictionary:

#### **front** (frunt)

n.

1. The forward part or surface, as of a building.
2. The area, location, or position directly ahead.
3. To look out on; face: a house that fronts the ocean.
4. the side that is forward or prominent
5. the side that goes first

NOTE: meaning 3 above - the front face of the dice "look out on" the craps table - is particularly pertinent.

#### **back** (bak)

n.

1. The part or area farthest from the front.
2. The reverse side, as of a coin
3. the side that goes last

NOTE: On the DICE SET DATA page, you must enter the TOP and FRONT, with the FRONT being the face facing away from you, pointing in the direction you are throwing.

## **Streaks Pages (RSS)**

While SRR (Sevens to Roll Ratio) may be a good metric to indicate your overall house advantage, understanding your Streak Ratio, or RSS (Roll Since Seven) is beneficial in determining your betting strategy.

For instance, streaks of zero (I.e. sevens in a row) will lower your SRR, but INCREASE your RSS - this is because the RSS ignores streaks of zero.

Streaks of zero are useful in that they give you naturals. Streaks of 1-6 represent the random area - and in this area, you want an RSS that is LESS than random. However, for streaks longer than 6 you want an RSS that is GREATER than random.

NOTE: I am considering changing RSS to RSP (rolls since point) as this may be a better metric for bet strategies. For instance, if you are consistently below random for streaks of 1-3 with RSP, then a possible betting strategy is a very high initial place bet with rapid regression.

Below, a negative "Improvement" means you are doing worse than random, and positive means better than random. For streaks of 1 thru 6, a positive percentage means throwing LESS than random, and for streaks of 0, and streaks 7 and up, a positive improvement means throwing MORE than random. (In the future I may implement a logarithmic algorithm to emphasize longer rolls.)

## **DISCLAIMER:**

This software comes with NO WARRANTY expressed NOR IMPLIED. You are ON YOUR OWN and this software is AS IS. It is up to you to determine its suitability and purpose. Remember that gambling entails high risk. Even with high SRRs it is possible to lose some or all of your bankroll. BE CAREFUL, know your limits, and wager responsibly.

## Version History:

### 2.1.1 - bug fix.

Dreadful bugs in the release version. Foremost - Wager Explorer was calculating ISR and WOTCO strategies totally wrong. UGH! Also, the RSS on the main page was not properly linked to the Transpose page.

ADDS:

- Random RSS on the main page, streak based on number of rolls.
- Wager Volatility is now a percentage related to your WAGER SIZE. It is 1/100th the Max Deficit divided by the wager.
- Basic PRESS strategy for place numbers - it presses one wager unit per win when checked.

### 2.1 Release

Made all user entry boxes light yellow. Fixed problems with the documentation.

#### 2.1a5

Removed the mersenne twister algorithm because it broke on PCs. UGH!

#### 2.1a4

More bug fixes, particularly aimed at PC users. Changed the way ranges are used in clearing functions, and altered a constant in mersenne twister.

Updated documentation to be more clear - and in particular a discussion relating to FRONT and BACK of die faces.

More speed improvements - including stopping screen updates during macro execution, and better handling of calculation manual/automatic. (The workbook now remains in automatic, except when macros run).

Wager Explorer:

Updated MAX DEFICIT calculation to be very accurate as per the max drop from any peak of wins. Because this is a slower method, however, I also added a radio button to choose between ACCURATE and the old FAST method.

Also added a clearing feature to clear all non-formula data from wager explorer.

### 2.1a1 - Speed Upgrade

A few bug fixes, but mostly putting **TURBO** into Turbo Tracker! In this version the transpose and RSS algorithms have been rewritten to use arrays, and the result is that calculating pasted data now is about 25 times faster! In version 2.0, transposing 6000 rolls took about 45 to 50 minutes - now it takes well under 2 minutes!!

The main page now has more SRR info for more sets, and more streak info. Also, you'll see a new pair of columns LDie BACK and RDie BACK. these are for future use, where you enter not only the two result faces, but also the two side faces facing closest to you. From this, I hope to generate 3 dimensional axial results based on how your dice are landing (that is, a more affirmative ascertainment of if you are on the pitch or the yaw axis).

Also, I moved the main TOSSING dice set entry back to the main page.

### 2.0 - Second Major Release!

BUG FIXES:

CHARTS - Right side charts fixed to accurately display appropriate data.

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MATH - related to the chart data - the MATH was wrong for some of the stat evaluations on the right side stats. Now fixed.

Fixed the incorrect orientation for the 23V set. The 23V is different from the 1/4P, in that the 23V is both 1/4 Pitch and 1/2 yaw.

#### **New Features:**

Main Page pitch and yaw results now indicate the percentage improvement over random.

SET EVALUATION: This is a brand new page that identifies your 4 best sets for any given number, as well as your 4 worst sets for any number.

Dice Phase: Now presenting "relative" dice phase - that is, how the right die performs relative to the left die. This is different than the more traditional "axis" metric, in that if both die Yaw the same amount, it is a 0 phase (primary), and secondaries are split between a forward 1/4 pitch (+90 degrees) and a backward 1/4 pitch (-90 degrees). Yaw is split into clockwise and counter clockwise, and tertiary (aka double pitch/double yaw) is indicated as 180 degrees.

RSS page: Now with a moving average of percentage of improvement.

Stats Pages: Now have consolidated the stats pages so that each shows 4 sets.

MATH: Where appropriate (mainly in Toss Stats and Transpositions), difference over random is now expressed as "percentage difference" in other words, if the random occurrence of a number is 5.6%, and the tossed occurrence is 6.4%, the percentage difference is 14.6%. Previously the math would have indicated the difference as 0.8% (subtracting 5.6 from 6.4).

I believe we are more interested in the percentage change over (or under) random, and not the raw difference.

EV: Added EV data and chart for each individual box number, and included the BUY for the 4/10 with pre-win vig, and the 4,5,9,10 buy with post win vig. This makes it easy to see signature numbers at a glance. Also expanded to include the 23V and 22HW sets. Also added an EV for the DON'T PASS.

WAGER EXPLORER: Here is the first iteration of Wager Explorer - it's lacking many of the planned features (such as press strategies), but does offer the basic functionality of showing you your actual wins/loss and max deficit for your roll data.

**1.0.1** - Major bugs in version 1.0 fixed, including incorrect RSS calculations, and totally messed up axis calculations. Also began some experimental features, such as dice phase, and RSS trailing average charting. Added the 2V sets for 5/9 in addition to the 4/10, so now all 4 major variations of the 2V are charted.

#### **1.0 - First release version.**

Many bug fixes, and a continuation to move from spread sheet to Virtual Basic.

- Transpositions are now contained in VBA, and are no longer cell formulas. The result is much faster calculations.
- There is a new Dice Set page where you set all of your dice sets, both for the your practice set and for your transposition sets. You no longer need to set all faces - now, you only need set the TOP and FRONT faces - the rest is automagic! Both LEFT and RIGHT oriented die are accommodated with a preference button.
- Transpositions and stats pages have been completely reworked to emphasize the concept of MOST CRITICAL DIE for the 1/4 Yaw axis sets, such as the 2V and 3V. With the 1/4 Yaw Axis sets, the Most Critical Die is the die that is most important to throw on axis - if your single die off axis results favor the left left die (i.e. you are more off axis with the right die), then the Most Critical Die should be on the left, as in the 2VL or 3VL sets.
- On the Roll Data pages, all columns of pasteable data are now grouped together for ease of use.

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#### **Version 0.91 Beta pre release.**

A few bugs fixed, and user entry fields now all yellow. Also made dice face entry simpler, calculating opposite sides. Added rolling SRR, and more streak calculations, including the RSS page for charting RSS.

#### **Version 0.9 - First beta pre-release.**

- Tracks the last 6000 rolls, so as you go along, your earlier rolls are discarded, and your SRR is based only on your latest 6000 rolls. 6000 is statistically significant, and judging your SRR on a smaller sample is often unwise, unless your SRR is above 7. I will add a sample size adjuster in a future release so that you "godly" folks can set a smaller sample size.

- The main tracking page shows you your SRR, and transposes your SRR for several other dice sets, all in real time as you practice.

- The main tracking page shows your "Rolls Since Seven", along with your best and average RSS (The average RSS ignores streaks of zero - that is, more than one seven in a row).

- \*Detailed pitch info, showing your overall on axis, your primary pitch, secondary pitch, double pitch, left and right yaw, primary yaw (that is, where both die yaw exactly the same) and double yaw (where, like double pitch, the two die yaw 1/2 rev away).

- Roll results now uses conditional formatting, so you can see at a glance where your 7s are popping up - it can be quite humbling!!

- Serialized roll results that include session number, grip, set, date, rolling SRR, etc.

- And just about everything that Mad Dog has in Bonetracker 4.1, plus additional translation pages and charts.

\*\* End Of Text \*\*\*