

The SDQL Manual for the NFL

Updated for 2015

*“Study the past, if you would divine the future.”
~ Confucius*

The Sports Data Query Language (SDQL) was developed to allow anyone on the planet with internet access to investigate the results of historical sporting events. The SDQL solves many of the problems that previously prevented such access. The first hurdle was speed. The developers of the SDQL knew that customers would not wait more than a few seconds for the results of a query. This hurdle took years of development and many breakthroughs to overcome. Now, anyone on the planet can get the results for, say, the Packers at home in December off a loss, in about one second.

The next hurdle was data access and storage. Previously, customers paid tens of thousands of dollars for programs that allowed search protocols, but these programs existed on the clients computer and hence, they had to be updated with recent results and this cost the client more money. The developers of the SDQL solved this problem by storing all the data in one place -- in a bank of supercomputers in a special temperature and humidity controlled facility. It is the storage and retrieval protocol of these data that make the SDQL so fast.

Previously, the only people with agile access to historical sports data were researchers at ESPN, the Elias Sports Bureau, Stats Inc. and Football Reference.com -- which are all fantastic resources that we have used in the past. With the release of the SDQL now sports aficionados across the planet can perform high-tech research in the comfort of their own home. It is free and it is fast. This manual describes what the SDQL can do for you. Enjoy!

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Using This Manual

This document describes how to use the Sports Data Query Language (SDQL) to perform serious research on historical results in the NFL over the internet. There are no “rules” for using this manual. Some may start from the beginning and methodically go through the entire book line by line. Others may skip around frequently. Either way is fine. Do whatever suits you best.

We do, however, recommend actually performing the sample queries while on line. Although many websites offer the SDQL, the most developed is KillerSports.com. To get to the NFL query page at Killersports.com, point your browser to:

<http://killersports.com/nfl/query>

Another way to become proficient in the use of SDQL is to regularly read the sports blogs that use SDQL. You can often find very interesting queries posted at these sites and you can find questions and answers others have posted about the use of SDQL. If you have questions about how to perform a query, and would like to get a response from an expert, post it at the official SportsDataBase Google discussion group at:

<http://groups.google.com/group/SportsDataBase>

This site is frequently visited by SDQL masters as well as the authors of the SDQL language.

Youtube.com contains many videos that featurre the SDQL. The Sports Data Query Group (SDQG) is a spin-off of KillerSports.com. They provide daily trends sets in the TrendMart at KillerSports.com and they provide daily videos that demonstrate the use of the SDQL on YouTube. For the NFL Query Demo of the Day, search YouTube for:

NFL Query Demo of the Day

and subscribe to the channel. During the regular season there will be videos posted each day that provide valuable information regarding the upcoming games.

Users of the SDQL will be able to isolate billions upon billions of interesting situations using simply query text language. It will take a small time investment to learn the simple syntax of the query language, but the result will be the best access to NFL results available.

To investigate how a team performs in a particular situation, all that you have to do is to enter the query text for the situation into the text query box. It’s very similar to performing a search on Google. After the query text is entered, simply click on the SDQL! button to submit your request to the remote supercomputers. These computers will find all the games that qualify for the conditions you set, summarize the results, make a complete game listing and return the data to your computer -- all in about a second or two.

For example, to find out how the Giants performed at home in 2014, simply type the following into the SDQL text box, and they click the SDQL! button.

1.

Note that this query has three conditions or query phrases. The first is that the team is the Giants, the second is that the team is playing at home and the third is that the season is 2014. Try it on your computer. The results should look something like shown in the figure on the next page.

team= Giants and H and season=2014

SDQL!

team = Giants and H and season = 2014

SU: 3-5-0 (-1.25, 37.5%)

Teaser Records

ATS: 4-4-0 (-1.62, 50.0%) avg line: -0.4 +6: 5-3-0 (62.5%) -6: 1-6-1 (14.3%) +10: 6-2-0 (75.0%) -10: 1-7-0 (12.5%)

O/U: 4-3-1 (0.62, 57.1%) avg total: 47.1 +6: 3-5-0 (37.5%) -6: 6-2-0 (75.0%) +10: 1-6-1 (14.3%) -10: 7-1-0 (87.5%)

Rushes Rush Yds Passes Comp Pass Yds TOs Q1 Q2 Q3 Q4 Final

Team 27.9 95.8 40.1 24.4 286.0 2.0 4.8 5.9 5.0 7.6 23.2

Opp 27.4 125.8 35.1 20.9 253.4 1.0 5.4 5.2 8.6 5.2 24.5

Date	Link	Day	Week	Season	Team	Opp	Site	Q1	Q2	Q3	Q4	Final	Line	Total	Sum	ATSm	OUm	DPS	DPA	SUr	ATSr	OUr	ot
Sep 14, 2014	view	Sunday	2	2014	Giants	Cardinals	home	0-10	7-0	7-0	0-15	14-25	-1.0	42.5	-11	-12.0	-3.5	-7.8	4.2	L	L	U	0
Sep 21, 2014	view	Sunday	3	2014	Giants	Texans	home	0-0	14-0	3-10	13-7	30-17	0.0	42.0	13	13	5	9.0	-4.0	W	W	O	0
Oct 05, 2014	view	Sunday	5	2014	Giants	Falcons	home	7-7	3-6	7-7	13-0	30-20	-4.0	50.0	10	6.0	0.0	3.0	-3.0	W	W	P	0
Nov 03, 2014	view	Monday	9	2014	Giants	Colts	home	0-3	3-13	7-21	14-3	24-40	3.0	50.5	-16	-13.0	13.5	0.2	13.2	L	L	O	0
Nov 16, 2014	view	Sunday	11	2014	Giants	Fortyniners	home	7-3	0-6	3-7	0-0	10-16	4.0	44.0	-6	-2.0	-18.0	-10.0	-8.0	L	L	U	0
Nov 23, 2014	view	Sunday	12	2014	Giants	Cowboys	home	7-3	14-7	0-14	7-7	28-31	3.5	49.0	-3	0.5	10.0	5.2	4.8	L	W	O	0
Dec 14, 2014	view	Sunday	15	2014	Giants	Redskins	home	7-3	0-7	10-3	7-0	24-13	-7.0	46.5	11	4.0	-9.5	-2.8	-6.8	W	W	U	0
Dec 28, 2014	view	Sunday	17	2014	Giants	Eagles	home	10-14	6-3	3-7	7-10	26-34	-1.5	52.5	-8	-9.5	7.5	-1.0	8.5	L	L	O	0

Showing 1 to 8 of 8 entries

This is the standard SDQL Query output file. It contains the SDQL query text box, a statistical summary of the results and a listing of the games that qualify for the conditions set.

So, anyone with internet access can investigate historical results with the Sports Data Query Language. Simply type in the conditions, hit the query button and wait a couple of seconds.

For example, how have the Patriots performed in game that were tied at the end of the third quarter? This query is just this:

2. (SDQL!)

The SDQL phrase M3=0 translates as, “margin at the end of the third quarter is zero,” which means that the game was tied at the end of the third quarter. The SDQL phrase, team=Patriots simply directs the computer to include only the results of the Patriots.

To see how the Packers have performed at home in December, use the SDQL:

3. (SDQL!)

To see how home dogs have performed on Monday Night, use:

4. (SDQL!)

As you might imagine, the possibilities are virtually endless.

Using this book to learn the SDQL should be an enjoyable exercise. If anything is boring you or seems too complicated, just skip it and perhaps come back to it later.

An Overview of the Structure of SDQL

This one-page intro is not designed to teach the details of components of a query, it is designed to demonstrate how those components are arranged. The rest of this book is dedicated to the specific components.

In sports, there are two combatants. To distinguish between them, SDQL identifies one of these the “team” and the other the “opponent.” This allows access to results based on both the performance of the team and the performance of their opponent. For example, the investigation of how a team performs when they *score* at least 24 points and it will allow the investigation of how the team performs when they *allow* at least 24 points. It is important to understand that the *team’s* results the results that are presented in the query output file.

An SDQL query consists of any number of query phrases strung together using the word ‘and.’ A query phrase usually consists of a game reference and a parameter that are separated by a colon. When there is no game reference, the parameter refers to the team and the game in question.

For example, to see how the Giants perform in games in which they scored at least 24 points, use:

1. `team = Giants and points >= 24` (SDQL!)

When you actually perform this query at killersports.com/nfl/query, you should see that the number of points scored by the Giants is at least 24 in every game in the listing (you may have to scroll down to see the game listing).

Since there is no game reference on the parameter ‘points’ it refers to the team and the game in question.

To see how the Giants perform in games in which their opponent scored at least 24 points, use:

2. `team = Giants and o:points >= 24` (SDQL!)

When running this query, you should see that the Giants allowed at least 24 points in every one of the qualifying games.

To see how the Giants perform in games AFTER they scored at least 24 points use:

3. `team = Giants and p:points >= 24` (SDQL!)

Each one of these three sample queries has two SDQL phrases. The first defines the team and the second gives a condition. There is no limit to the number of SDQL phrases that can be strung together with the word “and.” That’s it. This is the basic structure of the SDQL. This structure will allow the thorough interrogation and investigation of historical sports data.

The best way to wrap your head around the SDQL structure it is to try the many examples in this manual.

Learning the SDQL by Example

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1.1 The TEAM

We'll start off by giving numerous examples of the queries that can be performed over the internet using the SDQL. The SDQL text in the box below simply asks the computer for the Cardinals' results since 2013. As a reminder, it is a good idea to actually perform these queries by typing the text into the query text box at: killersports.com/nfl/query.

1. (SDQL!)

The computer will return a summary of all the results, as well as a listing of all the games. We can also get the Cardinals' results at home since 2013 as follows.

2. (SDQL!)

or on the road...

3. (SDQL!)

or all the games in which they scored at least 24 points in the history of the database.

4. (SDQL!)

Perform Your NFL queries at
KillersSports.com/nfl/query



The only SDQL site with "save trend" capability
The only SDQL site with enhanced query output

The symbol \geq just means greater than or equal to.

What about all the games in which the Cardinals scored fewer than 20 points and won? The SDQL is:

5. (SDQL!)

To get a listing of all the games in which the Cardinals scored at least ten points in the first quarter, the following SDQL text is used:

6. (SDQL!)

Q1 is the number of points the team scored in the first quarter. Similarly, Q2 is the number of points the team scored in the second quarter, Q3 is the number of points the team scored in the third quarter, *et cetera*.

We can also investigate how the Cardinals have performed when they committed more turnovers than their opponent:

7. (SDQL!)

The abbreviation TOM, as you might have guessed, stands for turnover margin.

Similarly, we can look up the Cardinals' results for games in which they had at least 15 passing first downs:

8. (SDQL!)

There are, in fact, many, many parameters that can be investigated with the SDQL. How about the Eagles performance in games in which they punted fewer than three times? The SDQL is:

9. (SDQL!)

To find out how the Ravens have done at home vs a divisional opponent, use:

10. (SDQL!)

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Learning the SDQL by Example, continued

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To find out how the 49ers have done in games in which they failed to get into the end zone on at least three red zone attempts, use the SDQL:

11. (SDQL!)

The shortcut, RZF, stands for Red Zone Failures.

To find out how the Seahawks have done as a road favorite when the OU line for the game is less than 40, use the SDQL:

12. (SDQL!)

The SDQL phrase, AF, as you might have guessed, stands for away favorite.

Recall that there is no limit to the number of parameters that can be linked together using the word “and.” For example, to see how the Dolphins have performed when they converted fewer than ten third downs *and* rushed for fewer than 80 yards *and* had a completion percentage less than 60 *and* failed to score a TD from at least one first and goal, use:

13. (SDQL!)

The SDQL abbreviations are: 3DM is third downs made, RY is rushing yards, CP is completion percentage and GTGF is goal-to-go failures. As you can see, the combinations of parameters is virtually limitless.

To see how the Saints perform in games in which they had at least three TD passes, use:

14. (SDQL!)

The PTD in the above query is the shortcut for passing touchdowns.

To see all the games in which the Colts kicked at least four field goals, use:

15. (SDQL!)

With the SDQL, it is simple to locate games in which unusual things happened. For example, the following query will list all the games in which a team won without scoring a touchdown.

16. (SDQL!)

Also, you can find all the games in which a team led by double-digits at the half and lost.

17. (SDQL!)

M2 is the shortcut for margin at the end of the second quarter.

How about all the games in which a team committed five turnovers and won? The query is uncomplicated:

18. (SDQL!)

The shortcut TO is for turnovers.

What about all the games in which a team never punted? The SDQL is simple:

19. (SDQL!)

To see all the games in which a team averaged less than one yard per carry, use:

20. (SDQL!)

The SDQL abbreviation, YPRA, stands for Yards Per Rushing Attempt.

How about all the games in which a team led after each of the first three quarters but lost.

21. (SDQL!)

As mentioned previously, the possibilities are only limited by your imagination.

But there's more...

1.2 THE o PREFIX

In all of the examples given in the previous section, the parameters point to the *team*. That is, the number of times the *team* threw an interception, the number of touchdowns the *team* scored, the completion percentage of the *team*. However, often it is useful to point the parameter to the team's *opponent*. This is done by using the o prefix, followed by a colon. Perhaps the most useful example of the o: prefix, as far as learning what it means, is to look at how a team has performed vs a particular opponent. For example, to see how the Steelers and done vs the Bengals, use:

22. (SDQL!)

Learning the SDQL by Example, continued

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Note that all the records in the records table in the query output file for this query are the records of the Steelers – not the Bengals, because the Steelers are defined as the team and the Bengals are the opponent. To see the Bengals' records against the Steelers, use:

23. (SDQL!)

This query, of course, gives no *new* information, but it does illustrate the important difference between the team and the opponent.

To further illustrate this difference, consider the following query, which shows all the games in which the Cardinals *allowed* at least 24 points at home:

24. (SDQL!)

The o:points>=24 simply means that the opponent's points is greater than or equal to 24. When you run this query, you should scroll down through the game listing to see that the Cardinals allowed at least 24 points in every one of the games.

To see the games in which the Cardinals forced at least 8 punts, use:

25. (SDQL!)

To see all the games in which a team shutout their opponent, use:

26. (SDQL!)

For comparison, to see all the games in which a team was shutout by their opponent, use:

27. (SDQL!)

Since the team parameter was not assigned in the preceding two examples, the computer simply returns the results for the entire league combined. Again, it is recommended that the reader scroll down through the results to confirm that the team was indeed shutout in all the games in the listing.

To see a listing of all the games in which Buccaneers' opponent committed at least ten penalties, use:

28. (SDQL!)

For comparison, to see a listing of all the games in which Buccaneers committed at least ten penalties, use:

29. (SDQL!)

Continuing, to see a listing of all the games in which both the Buccaneers *and* their opponent committed double-digit penalties, use:

30. (SDQL!)

To see a listing of all the games in which the Broncos allowed at least thirty points but won nonetheless, use:

31. (SDQL!)

To see a listing of all the games in which the Raiders did not force a turnover, the SDQL is:

32. (SDQL!)

To see a listing of all the games that had a final score of 20-17, use:

33. (SDQL!)

To allow maximum flexibility and power, the parameters can be compared with each other as well. For example, we can compare the number of completions a team had to the number of completions the team allowed:

34. (SDQL!)

This will return all the games in which the Chargers had more completions than their opponent.

Numbers can be added to investigate further. For example, to see all the games in which the Chargers had at least five more completions than their opponent:

35. (SDQL!)

As you can see, the possible combinations are only limited by your imagination.

Hopefully, you are starting to get the general “feel” for the SDQL: A query consists of a number conditions that are set to a value or a range of values. If there is more than one condition, they need to be connected with the word “and.” DON’T worry about remembering all the query

Learning the SDQL by Example, continued

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phrases. These are easy to look up, as there is a long listing at the end of this document. At this point, the idea is to just get a general idea of the basic structure of a query.

Let's keep looking at examples.

To view the complete listing of games in which a team had at least 30 more penalty yards than their opponent, use:

36. `PENY >= o:PENY + 30` (SDQL!)

To view the complete listing of the games in which a team had at least twice as many passing yards than their opponent, use:

37. `PY >= o:PY * 2` (SDQL!)

The parameters being compared don't have to be the same. For example, to view a complete listing of all the games in which the Jets had more punts than successful third down conversions, use:

38. `team = Jets and punts > 3DM` (SDQL!)

The queries can be even a bit ridiculous. To see all the games in which the sum of a team's incompletions and rushing yards is greater than the sum of the opponent's passing yards and penalty yards, use:

39. `INC + RY > o:PY + o:PENY` (SDQL!)

It is a meaningless query, but it demonstrates the thoroughness with which the NFL data can be investigated with the SDQL over the internet.

It is a common error to mix up the prefixes in complicated situations. For example, to see all the games in which the Jets are hosting a team that had 400-plus yards of offense in their previous game, you need:

40. `team = Jets and H and op:TY >= 400` (SDQL!)

The prefix `op:` means opponent's previous. In this example, the SDQL phrase, "`op:TY >= 400`" translates as, "the opponent's previous total yardage was at least 400." It is a common mistake to use `po:TY>400` in this spot. However, the prefix `po:` is the team's previous opponent. So, the query:

41. `team = Jets and H and po:TY >= 400` (SDQL!)

returns the games in which the Jets allowed at least 400 yards in their last game. That is, the Jets' previous opponent's total yards was at least 400. For completeness, let's consider the situation in which the Jets are hosting a team that *allowed* at least 400 yards of offense in their last game. The SDQL is:

42. (SDQL!)

As you might have figured out, the prefix opo: stands for "opponent's previous opponent."

1.3 THE p PREFIX

Another prefix that is very useful when investigating the performance of NFL teams is p:, which stands for previous game. Note that the p: parameter does not go back to the previous season, and it will ignore bye weeks. When the p: prefix is in front of a parameter, it points to the team's previous game. So, to find out how the Patriots perform *after* a loss as a favorite, use:

43. (query)

When this query is run, the games returned are all those when they Patriots lost as a favorite in their *previous* same-season game. It might be a good idea to verify a few of these by hand.

To find out how the Titans perform *after* a win in which they were turnover-free, use:

44. (query)

To find out how the Bengals perform when they are off a loss in which they punted at least six times and had a time of possession of less than 30 minutes, use:

45. (query)

Note that prefixes can be combined in any manner. So, to find the Texans' results as a dog when facing a team that has won three straight, use:

46. (query)

So, to get to the *second* previous game, simply put two p's together in the prefix. To get to the *third* game back, use three p's in the prefix. *Et cetera*.

To get the results for all the games in which a team lost by three points in each of their last three games, use the SDQL:

Learning the SDQL by Example, continued

47. `p:margin = -3 and pp:margin = - 3 and ppp:margin = - 3` (SDQL!)

Since there is no team assigned in this query, the computer returns the results of all the teams combined.

With the p: prefix, the situation in which a performance parameter is steadily increasing or decreasing can also be queried. For example, to query the situation in which the Bears' passing yardage has decreased over each of their two previous games, use:

48. `team = Bears and p:PY < pp:PY < ppp:PY` (SDQL!)

Or, what about when the Jaguars' penalty yardage has increased over each of the past two games?

49. `team = Jaguars and p:PY > pp:PY > ppp:PY` (SDQL!)

Or, when a team outrushed their opponent for three games straight?

50. `p:RY > po:RY and pp:RY > ppo:RY and ppp:RY > pppo:RY` (SDQL!)

An asterisk can be used as a multiplication sign so we can see, for example, how the Buccaneers do when their rushing yards dropped by at least a factor of two over their last two games:

51. `team = Buccaneers and p:RY * 2 <= pp:RY` (SDQL!)

A little creativity will produce some clever queries. For example, as a home favorite when they are off two road losses as a dog. The SDQL is:

52. `H and p:LAD and pp:LAD` (SDQL!)

How about a team off a win that broke at least a three game losing streak? The SDQL is:

53. `p:W and pp:L and ppp:L and pppp:L` (SDQL!)

1.4 THE P PREFIX

So far we have introduced the prefixes, o: and p:. Here we introduce the capital P: prefix. This points the parameter following it to the team's previous *match-up* vs their current opponent. The P: prefix is primarily used for revenge. For example, to see how the Dolphins have done at home

vs a team that beat them on the road the last time they faced each other, use:

54. **team = Dolphins and H and P:AL** (SDQL!)

Unlike the p: prefix, the capital P *does* go back between seasons. So, to investigate same-season revenge, you also need to specify that the season of the current match-up is the same season as the match-up in question by using the SDQL: P:season = season.

For comparison, the lower case p: prefix points the parameter to the teams previous *game* and the upper case P: prefix points the parameter to the team's previous *match-up*. The game parameters, such as points, rushing yards, turnovers, red zone attempts *et cetera*, can be used with both the p: and the P: prefixes.

For example, to see how the Ravens do when seeking revenge for a loss in which they committed at least three turnovers, use

55. **team = Ravens and P:L and P:TO>=3** (SDQL!)

To see how the Bears have done when seeking revenge for a loss in which they allowed at least 100 rushing yards and at least 300 passing yards, use:

56. **team = Bears and P:L and Po:PY>=300 and Po:RY>=100** (SDQL!)

To see how the Packers have done when seeking same-season revenge vs a divisional opponent, use:

57. **team = Packers and P:L and P:season=season and DIV** (SDQL!)

To see how the 49ers have done vs a team that has beaten them two straight, use:

58. **team = 49ers and P:L and PP:L** (SDQL!)

Of course, the previous match-up result can be a win as well. For example, to see how the Falcons have performed vs a team they have beaten three straight, use:

59. **team = Falcons and P:W and PP:W and PPP:W** (SDQL!)

To see how league as a whole has done as a dog when facing a team they beat twice in a row as a dog, use:

Learning the SDQL by Example, continued

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60. **D and P:WD and PP:WD** (SDQL!)

Yet again, the possibilities are virtually limitless.

So far we have simply presented a number of examples of queries. Hopefully, you are starting to wrap your head around the power, speed and simplicity of the SDQL. We have one more prefix to go.

1.5 THE n PREFIX

This is the last of the NFL prefixes. It points to the team's next game. It can be used to investigate "look-ahead" and scheduling situations. For example, how do the Ravens perform the week *before* visiting the Steelers? The SDQL text is:

61. **team = Ravens and n:A and no:team=Steelers and n:NB** (SDQL!)

The query phrase NB stands for "no bye", so n:NB means that the team does not have a bye next.

The next prefix can also be used to investigate looking ahead to Monday Night games. For example, how does a team perform at home vs a non-divisional opponent when they play on the road on Monday Night vs a divisional opponent the following week? The SDQL text is:

62. **H and NDIV and n:A and n:day=Monday and n:DIV and n:NB** (SDQL!)

The n: prefix can be used to see how the Raiders have performed at home when their next two games are on the road. The SDQL text is:

63. **team = Raiders and H and n:A and nn:A** (SDQL!)

As with the other prefixes, the n's can be combined to go further into the future.

The divisional sandwich is a popular spot with professional handicappers. It is simply a divisional game sandwiched between two non-divisional games. The SDQL text is:

64. **p:NDIV and DIV and n:NDIV** (SDQL!)

As with the other prefixes, the n's can be combined together and used in the same query.

Learning the SDQL

Here are a number of different ways to learn about the SDQL.

- 1. If you have a question to ask about the SDQL, post it at the official SportsDataBase.com Google Discussion Group at:
<https://groups.google.com/forum/#!forum/sportsdatabase>**
- 2. Watch daily SQDL query demos on the youtube channel:
NFL SDQL Demo Query of the Day**
- 3. Subscribe to the KillerSports.com NFL Weekly Report. This 12-plus page report is delivered to your e-mail box in pdf format every Wednesday during the regular season. It contains lot of trends, systems and other performance indicators all of which come with the SDQL. The cost is \$169 in web debit value. You can subscribe with Paypal or with a KillerSports.com web debit account here:
<http://killersports.com>**
- 4. Get a copy of the 2015 KillerSports.com NFL Annual. It is free download in pdf format at KillerSports.com and it can be purchased as a hard copy from Gambler's Book Shop in Las Vegas. This 100-plus page book contains twelve perfect trends in past performance for each team -- including the SDQL. Also included are a complete stats and records summary page for each team, teaser trends and league-wide multi-season systems. Download this document for free in pdf format here:
<http://killersports.com/Download/NFL/2015NFLBible.pdf>**
- 5. Watch videos that provide answers to past SDQL Masters Exam Questions. Examples of past Masters Exams are available in pdf format at:
<http://killersports.com/download>
Solutions to the exams are posted in short videos on-line. To view these 1-minute videos, click on the link provided at the bottom of each worksheet. For a page with all the solution playlists, go to youtube.com and search on "NFL SDQL Playlists."**

To order a hard Copy of the of the 2015 KillerSports.com NFL Annual, call the Gambler's Book Shop in Las Vegas at: 1-800-522-1777

The “Search All” Feature

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2.1 Search All: Teams

Let’s say we want to know which team is the best in the league in games in which they were turnover-free. Rather than searching on each team individually and keeping track of each result, simply use the team parameter, but leave it unassigned. That is, enter the following in the query text box:

65. (SDQL!)

Leaving the team parameter unassigned or “floating” will instruct the remote supercomputer to perform the query for each team individually and then output the results, which can be ranked from best to worst.

That is, the output will be a table of results with each team occupying a row. To see the standard query output file with stats summary and game listing for any one of the team, click on their team name in the “SDQL” column on the far right.

To rank the results by number of games, click on the “games” link at the top of the leftmost column. A second click will rerank the column in reverse order.

To rank the results by total number of ATS wins, click on the “W” at the top of the second column. To rank the results number of ATS losses, click on the L at the top of the second column. To rank the results by average ATS margin, click on the “marg” at the top of the second column. To rank the results by ATS win percentage, click on the “% win” at the top of the second column.

To rank by straight up win percentage, click on the “%win” in the column headed SU. You should see that the 49ers are the best, with a record of 81-8-1. If the Oilers are on top, click again to reverse the order of the ranking.

So, by not assigning a particular team to the team parameter, the computer simultaneously performs 32 queries, one for each NFL team and then outputs the results in a table.

This easy-to-use feature will quickly become one of the most frequently used as well. For example, let’s say you are interested in which NFL team is the best performing when they are off a loss in which they led at the half. To do this simply enter:

66. (SDQL!)

or how about the best performing team when they are at home off a road loss? The SDQL below will do the job.

67. (SDQL!)

What about a compete listing of the results of all the teams in the league in games in which neither team committed a turnover? The SDQL is:

68. **TO=0 and o:TO = 0 and team** (SDQL!)

To answer the question, “Since 2000, which NFL team held their opponent scoreless in the first quarter the most?” use the following SDQL:

69. **season>=2000 and o:P1=0 and team** (SDQL!)

And then rank the results by the “games” column on the far left. You should find that the answer is the Patriots.

To uncover which NFL team is the only one with a losing record since 2000 in home games in which they rushed for 100-plus yards, use the following SDQL.

70. **season>=2000 and H and RY>=100 and team** (SDQL!)

And then rank the results by SU win percentage by clicking on the “%win” in the SU column. You should find that the team is the Lions.

To see which team has the most wins since 2000 in games in which they trailed after three quarters, use the SDQL:

71. **season>=2000 and M3<0 and team** (SDQL!)

And then rank by number of straight up wins by clicking on the “W” at the top of the SU column. You should find that the answer is the NY Giants.

Even simple queries can reveal very interesting information. For example, which NFL team has the best record on Monday Night Football since the start of the 2005 season?

72. **season >= 2005 and day = Monday and team** (SDQL!)

You should find that the Seattle Seahawks are 9-0 straight up on Monday Night Football since 2005.

How about turnover margin? The SDQL for turnover margin is TOM and a positive turnover margin means that the team committed *more* turnovers than their opponent. So, to get the records of each of the teams in the league at home when they committed fewer turnovers than their opponent since 2007, use the SDQL:

73. **TOM<0 and H and team and season >= 2007** (SDQL!)

The “Search All” Feature, continued

You should find that there is only one team in the league that is perfect in this spot -- the Arizona Cardinals.

2.2 Search All: Whatever You Want

The Search-All feature can be applied to ANY of the parameters -- not just the team. For example to see the Bears’ results broken down by the number of turnovers they committed, use:

74. (SDQL!)

Leaving the turnover parameter unassigned will instruct the remote supercomputer to perform the query for each number of turnovers the Bears have committed and then individually and then output the results. The results will be a table of the Bears’ records when they committed 0, 1, 2, 3, 4, 5, 6 and 8 turnovers. The table reveals, for example, that the Bears are 47-17-4 ATS from 1989 through 2014 when they committed no turnovers. We also can see that the Bears had a 8-turnover game. To see which game it was, click on that row in the column on the far right. This will open the standard Query Output file that shows the game.

To see the results of the entire league broken down by the number of turnovers committed, run this 2-letter query:

75. (SDQL!)

Here we see that the league is a combined 1806-590-61 ATS through 2014 when they are turnover free. Note that this includes the games in which both teams were turnover free. To get the league’s results as a function of the number of turnovers their opponent committed when the team was turnover-free use the SDQL:

76. (SDQL!)

In this query, the parameter that is unassigned is the number of turnovers committed by their opponent. Here we see that the league is 471-127-14 ATS through 2014 when they were turnover free and their opponent committed two turnovers. To see each team’s results in this specific situation, use:

77. (SDQL!)

By ranking the column on the far right, we can see that the 49ers are the only team in the database that has not lost in this spot, going 31-0, whereas the Browns are only 5-5.

As mentioned previously ANY parameter can be left unassigned. To see the Bengals’ records

broken down by the number of points they scored, use:

78. (SDQL!)

To see the Bengals' records broken down by the number of points they allowed, use:

79. (SDQL!)

To see the Patriots' records broken down by the number of penalties they committed, use:

80. (SDQL!)

To see the Seahawks' records broken down by their turnover margin, use:

81. (SDQL!)

To see the Redskins' records broken down by the number of times they rushed the ball, use:

82. (SDQL!)

To see the Packers' results vs every team in the league at home, use:

83. (SDQL!)

To see the Browns' results broken down by the number of points they scored in the first quarter, use:

84. (SDQL!)

To see the Eagles' results broken down by the number of Red Zone Attempts they had, use:

85. (SDQL!)

To see the Vikings' results broken down by number of turnovers they committed in their previous game, use:

86. (SDQL!)

To see the Dolphins' results broken down by the win-loss differential of their opponent, use:

87. (SDQL!)

In fact, more than one parameter can be left unassigned.

To see every team's record broken down by every possible week number, run the following SDQL:

88. (SDQL!)

To see the Rams' record for every possible combination of site and day, run:

89. (SDQL!)

Has a team ever had three shutouts in the same month? Run this:

90. (SDQL!)

and rank by the games column.

Summary:

The purpose of this manual is to introduce the user to the Sports Data Query Language (SDQL). The examples presented here are really a small fraction of its full power. The SDQL can produce tables of data that are extremely useful and are automatically generated daily. KillerSports.com has computers reserved for running personal trend sets of professional handicappers as well as serious individual players on a daily basis. When you become a member of Killersports.com, there will be a menu bar item called "My MLB Trends." There are numerous professional handicappers that have over 1000 saved trends and systems in their personal "My Trend" file. These are run every day and the ones that apply to the upcoming games are revealed -- and the records are updated with games that occur throughout the season.

No longer is complete access to MLB, NFL and NBA data exclusive to a select few. The supercomputers at SportsDataBase.com are updated each day with the freshest data available. You now have the power to access these data over the internet for FREE.

Enjoy. And tell your friends.

The Parameter Listing

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Below is a list of the most commonly used parameters. The listing is updated frequently. For a complete listing, go to sdql.com. The power of SDQL comes from the manner in which these parameters can be combined to produce a tremendous variety of queries that are impossible to perform anywhere else. The sample queries shown with each parameter are very simplistic and are given merely to define the parameter, not to give an example of a useful query. When game references are put on the parameters and the parameters are combined, the true power of the Sports Data Query Language can be seen.

ats margin - This is the margin by which a team covered or failed to cover the spread. Positive margins are ATS wins, negative ATS margins are ATS losses, and an ATS margin of zero is a push.

Sample Query: `ats margin >=10`

Sample Query Translation: Games in which the team covered the spread by at least ten points.

ats streak -- This is the current number of consecutive straight ATS wins or ATS losses a team has experienced. Positive ATS streaks are winning streaks and negative ATS streaks are losing streaks. An ATS push breaks all ATS streaks and ATS streak are only within the current season.

Sample Query: `ats streak <= -2`

Sample Query Translation: Games in which the team has failed to covered the spread in each of their last two games.

completions -- This is the number of completed passes the team has in the referenced game.

Sample Query: `p:completions < 12 and pp:completions<12`

Sample Query Translation: Games in which the team has fewer than 12 completions in each of their last two games.

conference -- The home conference of the referenced team.

Sample Query: `team = Ravens and o:conference = NFC`

Sample Query Translation: The Ravens vs the NFC.

date -- The date in the standard eight-digit format of YYYYMMDD. For example, August 16th, 2000 would be: 20000816.

Sample Query: `team = Bengals and date > 20020101`

Sample Query Translation: The Bengals since January 1st, 2002.

day-- This is the day of the referenced game. Common queries involving the day are for Monday Night and Thursday Night games.

Sample Query: `team = Browns and day= Thursday and H`

Sample Query Translation: The Browns at home on Thursdays.

division -- The home divisional of the referenced team.

Sample Query: `o:division = NFC North and team = Patriots and season >= 2002`

Sample Query Translation: The Patriots vs the AFC North division since 2002

dpa -- The abbreviation for Delta Points Allowed. This is the difference between the expected number of points allowed and the actual number of points allowed in the referenced game. For

example, If a team is a six-point favorite with the total at 50, the “expected” final score is 28-22. If the team wins 31-10, their dpa is minus 12. That is, they allowed 12 points fewer than expected.

Sample Query: p:dpa<0 and pp;dpa<0

Sample Query Translation: The team held their opponent to fewer points than expected in each of their last two games.

dps -- The abbreviation for Delta Points Scored. This is the difference between the expected number of points scored and the actual number of points allowed in the referenced game. For example, If a team is a six-point favorite with the total at 50, the “expected” final score is the team winning 28-22. If the team wins 31-10, their dps is plus 3. That is, they scored 3 points more than expected.

Sample Query: p:dps >= 10

Sample Query Translation: The team scored at least ten points more than expected in their last game.

field goals -- The number of field goals the team made in the referenced game.

Sample Query: field goals>=5

Sample Query Translation: Games in which the team made at least five field goals.

field goals attempted -- The number of field goals the team attempted in the referenced game.

Sample Query: field goals attempted = 0

Sample Query Translation: Games in which the team did not attempt a field goal.

first downs -- The number of first downs the team earned in the referenced game. This includes passing first downs, rushing first downs and penalty first downs. It does not include the first downs a team gets on possession changes.

Sample Query: first downs < 10

Sample Query Translation: Games in which the team had fewer than ten first downs.

fourth downs attempted -- The number of times the team did not attempt a field goal or a punt on fourth down in the referenced game. This includes fakes, but does not include blocked punts or kicks.

Sample Query: fourth downs attempted>=3

Sample Query Translation: Games in which the team attempted to convert at least three fourth downs.

fourth downs made-- The number of times the team got a first down with a play from scrimmage on a fourth down attempt.

Sample Query: p:fourth downs made>=2

Sample Query Translation: Games in which the team converted at least two fourth downs in their previous game.

fumble return touchdowns-- The number of times the team returned a fumble for a touchdown in the referenced game.

Sample Query: fumble return touchdowns > 1

The Parameter Listing, continued

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Sample Query Translation: Games in which the team returned more than one fumble for a touchdown.

fumbles -- The number of times the team fumbled the ball in the referenced game. This includes fumbles that they recovered.

Sample Query: fumbles >= 5

Sample Query Translation: Games in which the team fumbled the ball at least five times.

fumbles lost -- The number of the team's fumbles that were recovered by the opponent in the referenced game.

Sample Query: p:fumbles lost =0 and pp:fumbles lost = 0

Sample Query Translation: Games in which the team did not lose a fumble in each of their last two games.

game number-- The number of the team's game in the current season. This is often not the same as the week number because of the bye week.

Sample Query: wins=losses and game number > 8

Sample Query Translation: When the team has a record of 500 and it is after their eighth game of the season.

goal to go attempted -- The number of times the team had a first down inside their opponent's ten yard line in the referenced game.

Sample Query: goal to go attempted = 0

Sample Query Translation: Games in which the team did not have a first and goal to go.

goal to go made -- The number of times the team scored a touchdown from a first and goal to go in the referenced game

Sample Query: goal to go made = 0 and goal to go attempted >=3

Sample Query Translation: Games in which the team had at least three first-and-goals but did not score a touchdown on any of them.

interception touchdowns -- The number of times the team scored a touchdown by intercepting an opponent's pass in the referenced game. Also known as a pick-six.

Sample Query: p:interception touchdowns > 0 and pp:interception touchdowns > 0

Sample Query Translation: Games in which the team had at least one interception return for a touchdown in each of their last two games.

interceptions -- The number of times the team threw a pass that was intercepted in the referenced game. Note that this, like fumbles, is an *offensive* stat.

Sample Query: p:interceptions>=3 and pp:interceptions >= 3

Sample Query Translation: Games in which the team threw at least three interceptions in each of their last two games.

kickoff return touchdowns -- The number of times the team ran back a kick for a touchdown in the referenced game.

Sample Query: kickoff return touchdowns > 0

Sample Query Translation: Games in which the team returned a kickoff for a touchdown.

line -- The line of the team in the referenced game. Negative lines indicate favorites and a team with a positive line is the underdog.

Sample Query: line <= -7

Sample Query Translation: The team is favored by at least a touchdown.

losses -- The number of games the referenced team has lost in the current season.

Sample Query: week > 4 and o:losses = 0

Sample Query Translation: The team is facing an unbeaten opponent after week four.

margin -- The margin by which the team won or lost the referenced game. Positive margins are wins and negative margins are losses.

Sample Query: p:margin >=7 and pp:margin >= 7 and ppp:margin >= 7

Sample Query Translation: The team won by at least a touchdown in each of their last three games.

margin after the first -- The margin by which the team was ahead or behind at the end of the first quarter in the referenced game. Positive margins are leads and negative margins indicate that the team was behind.

Sample Query: W and p:margin after the first <= -10

Sample Query Translation: Games in which the team was behind by at least ten points at the end of the first quarter but won the game.

margin after the third -- The margin by which the team was ahead or behind at the end of the third quarter in the referenced game. Positive margins are leads and negative margins indicate that the team was behind.

Sample Query: p:margin after the third = 0 and p:L

Sample Query Translation: When the team is off a loss that was tied at the end of the third quarter.

margin at the half -- The margin by which the team was ahead or behind at the half in the referenced game. Positive margins are leads and negative margins indicate that the team was behind.

Sample Query: margin at the half =0 and margin <= -20

Sample Query Translation: Games in which the team was tied at the half but lost by at least 20 points.

month -- The number of the month.

Sample Query: team=Packers and H and month = 12

Sample Query Translation: Packers' games in which they are playing at home in December.

ou margin - This is the margin by which a team went over or under the line for the total number of points in the referenced game. Positive ou margins are OVERs, negative ou margins are UNDERs, and an ou margin of zero is a push.

Sample Query: ou margin <= -10

The Parameter Listing, continued

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Sample Query Translation: Games in which the team stayed under by at least ten points

ou streak -- This is the number of straight UNDERS or OVERs a team has experienced. Positive ou streaks are OVER streaks and negative ou streaks are UNDER streaks. An ou push breaks all ou streaks and ou streak are only within the current season.

Sample Query: ou streak <= -2 and o:ou streak <= -2

Sample Query Translation: Both the team and the opponent stayed UNDER in each of their last two games.

overtime -- The number of overtime sessions in the referenced game.

Sample Query: p:overtime > 0 and p:L

Sample Query Translation: The team lost in overtime in their previous game.

passes -- The number of passes thrown by the team in the referenced game.

Sample Query: passes >= 50

Sample Query Translation: Games in which the team threw at least 50 passes.

passing first downs -- The number of first downs the team got by throwing the ball in the referenced game.

Sample Query: passing first downs >=15

Sample Query Translation: Games in which the team had at least 15 passing first downs.

passing touchdowns -- The number of passing touchdowns the team had in the referenced game.

Sample Query: passing touchdowns = 0

Sample Query Translation: Games in which the team had no passing touchdowns.

passing yards -- The number of net passing yards the team had in the referenced game.

Sample Query: passing yards > = 300

Sample Query Translation: Games in which the team had at least 300 passing yards.

penalties -- The number of penalties the team had in the referenced game.

Sample Query: penalties >= 10

Sample Query Translation: Games in which the team committed at least ten penalties.

penalty first downs -- The number of first downs the team was awarded because of an opponent's penalty in the referenced game.

Sample Query: penalty first downs >= 3

Sample Query Translation: Games in which the team had at least three of their first downs via an opponent's penalty.

penalty yards -- The number of penalty yards the team had in the referenced game.

Sample Query: penalty yards >= 100

Sample Query Translation: Games in which the team had at least 100 yards of penalties.

playoffs -- This indicates when they game was in the playoffs or in the regular season. The value

is 1 if the game is a playoff game and 0 if it is a regular season game.

Sample Query: team = Patriots and o:team=Colts and playoffs = 1

Sample Query Translation: Playoff games between the Colts and Patriots.

points -- The number of points the team scored in the referenced game.

Sample Query: p:points < 10 and pp:points < 10

Sample Query Translation: When the team scored fewer than ten points in each of their previous two games.

punt return touchdowns -- The number of times the team returned a punt for a touchdown in the referenced game.

Sample Query: punt return touchdowns > 0

Sample Query Translation: Games in which the team returned a punt for a touchdown.

punts -- The number of times the team punted the ball in the referenced game.

Sample Query: punts >= o:punts + 5

Sample Query Translation: Games in which the team punted the ball at least five more times than their opponent.

red zones attempted -- The number of possession in which the team was inside their opponent's twenty yard line in the referenced game.

Sample Query: red zones attempted = 0

Sample Query Translation: Games in which the team has no possessions inside their opponent's twenty yard line.

red zones made -- The number of possessions in which the team was inside their opponent's twenty yard line and scored a touchdown in the referenced game.

Sample Query: red zones made = 0

Sample Query Translation: Games in which the team has no touchdowns from inside their opponent's twenty yard line.

rest -- The number of days rest the team has in the referenced game. Normal rest for the NFL is six days -- from one Sunday to the next Sunday.

Sample Query: rest > 6

Sample Query Translation: Games in which the team had more than normal rest.

rushes -- The number times the team ran the ball in the referenced game. This includes quarterback scrambles in which the quarterback made it over the line of scrimmage.

Sample Query: rushes >= 30

Sample Query Translation: Games in which the team had at least thirty rushes.

rushing first downs -- The number of rushing first downs the team has in the referenced game.

Sample Query: rushing first downs >= 10

Sample Query Translation: Games in which the team had at least ten first downs via the rush.

rushing touchdowns -- The number of rushing plays that resulted in touchdowns in the referenced game.

Sample Query: rushing touchdowns = 0

Sample Query Translation: Games in which the team had no rushing touchdowns.

rushing yards -- The number of rushing yards that the team accumulated in the referenced game.

Sample Query: rushing yards >= 100

Sample Query Translation: Games in which the team rushed for at least 100 yards.

sacks -- The number of times the team sacked the opponent's quarterback in the referenced game. Note that sacks is a *defensive* stat.

Sample Query: sacks >= 3

Sample Query Translation: Games in which the team had at least three sacks.

season -- The year of the season. This is used to investigate results for specific time periods.

Sample Query: team = Browns and season = 1999

Sample Query Translation: The Browns' results for the 1999 season.

site -- The site of the game. Choices are home or away.

Sample Query: site = Cowboys and site=away

Sample Query Translation: The Cowboys when playing on the road.

snf -- This indicates whether the game was played on Sunday Night Football. When it is 1, the game was on Sunday Night Football. When it is 0, it was not.

Sample Query: team = 49ers and snf=1

Sample Query Translation: The 49ers on Sunday Night Football

streak -- The current winning or losing streak of the team. Winning streaks are positive and losing streaks are negative.

Sample Query: streak >= 3

Sample Query Translation: The team won at least their last three games.

surface -- Indicates whether the game was played on artificial surface or grass.

Sample Query: surface = grass and p:surface = artificial

Sample Query Translation: The results for a team playing on grass when their previous game was on artificial surface.

team -- This assigns a particular team or, using the o: prefix, a particular opponent.

Sample Query: team = Ravens and o:team = Steelers

Sample Query Translation: The Ravens' results vs the Steelers.

third downs attempted -- The number of third down attempts a team had in the referenced game.

Sample Query: third downs attempted >= 15

Sample Query Translation: Games in which the team had at least 15 third down attempts.

third downs made -- The number of successful third down attempts a team had in the referenced game.

Sample Query: third downs made < 5

Sample Query Translation: Games in which the team converted fewer than five third down attempts.

time of possession -- The number of seconds of possession time the team had in the referenced game.

Sample Query: `time of possession < 26 * 60`

Sample Query Translation: Games in which the team had fewer than 26 minutes of possession time.

total -- The over/under line for the total number of points scored in the referenced game.

Sample Query: `total >= 55`

Sample Query Translation: Games in which the over/under line was at least 55.

touchdowns -- The number of touchdowns a team scored in the referenced game.

Sample Query: `touchdowns >= 4`

Sample Query Translation: Games in which the team scored at least four touchdowns

turnover margin -- The number of turnovers committed by the team minus the number of turnovers committed by their opponent in the referenced game.

Sample Query: `turnover margin > 0`

Sample Query Translation: Games in which the team committed more turnovers than their opponent.

turnovers -- The number of times the team turned the ball over to their opponent on either a lost fumble or an interception.

Sample Query: `p:turnovers = 0 and pp:turnovers = 0`

Sample Query Translation: Games in which the team was turnover free in each of their last two games.

week -- The number of the week of the season.

Sample Query: `HD and week = 17`

Sample Query Translation: Home underdogs on the last week of the regular season.

wins -- The number of the wins the referenced team has on the current season.

Sample Query: `wins < o:wins and AF`

Sample Query Translation: Away favorites vs a team with more wins in the current season.

SDQL Shortcuts

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Below we present the SDQL shortcuts. All shortcuts are capital letters. Shortcuts can save a lot of typing. For example, instead of typing, “site = home,” you can just use H. Similarly, instead of typing “100*completions/passes,” to get completion percentage, you can use the shortcut CP. There are two types of shortcuts, single-letter shortcuts and multi-letter shortcuts. The single-letter shortcuts are presented first.

Single-Letter Shortcuts

There are nine single letter shortcuts in the NFL SDQL. They are A, H, D, F, L, W, O, U and C. These single-letter parameters can be strung together without the word “and” between them in any order. So, the SDQL for off a loss as a home favorite is p:HLF. Similarly, p:FHL works as well. Each parameter is defined below:

A -- Away. Indicates that the team is playing away from home in the referenced game. It is equivalent to: site = away.

Sample Query: A and team = Browns

Sample Query Translation: The Browns playing away from home.

C -- Conference. Indicates that the team and the opponent are from the same conference. It is equivalent to: conference = o:conference.

Sample Query: HFC and team = Steelers

Sample Query Translation: The Steelers when they are a home favorite vs an AFC opponent.

D -- Underdog. Indicates that the team is the underdog in the referenced game. It is equivalent to: line > 0.

Sample Query: HD and p:AL and team = Falcons

Sample Query Translation: The Falcons as a home dog off a road loss.

F -- Favorite. Indicates that the team is favored in the referenced game. It is equivalent to: line < 0.

Sample Query: HF and p:HFL and team = Packers

Sample Query Translation: The Packers as a home favorite off a loss as a home favorite.

H -- Home. Indicates that the team is playing at home in the referenced game. It is equivalent to: site = home.

Sample Query: H and team = Ravens

Sample Query Translation: The Ravens playing at home.

L -- Loss. Indicates that the team lost in the referenced game. It is equivalent to: margin < 0.

Sample Query: A and p:AL and team = Patriots

Sample Query Translation: The Patriots on the road after a road loss.

O -- Over. Indicates that the team went over the total in the referenced game. It is equivalent to: ou margin > 0.

Sample Query: total >= 50 and p:O and pp:O

Sample Query Translation: The league's results when their last two games went over the total and the total in the current game is at least 50.

U -- Under. Indicates that the team went under the total in the referenced game. It is equivalent to: $\text{ou margin} < 0$.

Sample Query: $\text{points} > 21$ and $\text{o:points} > 21$ and U

Sample Query Translation: The games that stayed under the total when both teams scored more than 21 points

W -- Win. Indicates that the team won in the referenced game. It is equivalent to: $\text{margin} > 0$.

Sample Query: p:HW and $\text{team} = \text{Bengals}$

Sample Query Translation: The Bengals off a home win.

Multi-Letter Shortcuts

ATSL -- Against The Spread Loss. Indicates that the team failed to cover the spread in the referenced game. It is equivalent to: $\text{ats margin} < 0$.

Sample Query: p:AL and p:ATSL and $\text{team} = 49ers$

Sample Query Translation: The 49ers off a straight up and ATS loss.

ATSW -- Against The Spread Win. Indicates that the team covered the spread in the referenced game. It is equivalent to: $\text{ats margin} > 0$.

Sample Query: $\text{points} = 0$ and ATSW

Sample Query Translation: The 49ers off a straight up and ATS loss.

AWP -- Away Winning Percentage. The season-to-date road winning percentage of the referenced team

Sample Query: $\text{o:AWP} \geq 50$ and $\text{team} = \text{Buccaneers}$ and H

Sample Query Translation: The Buccaneers at home vs a team that has a season-to-date winning percentage of at least 50% on the road.

3DA -- Third Down Attempts. The number of third down attempts by the team in the referenced game.

Sample Query: $\text{p:3DA} \geq 10$

Sample Query Translation: The games in which a team attempted at least ten third downs.

3DF -- Third Down Failures. The number of third down attempts that failed by the team in the referenced game.

Sample Query: $\text{p:3DF} \geq 10$

Sample Query Translation: The games in which a team failed to convert at least ten third downs.

3DM -- The number of third downs made by the team in the referenced game.

Sample Query: $\text{p:3DM} \geq 10$

Sample Query Translation: The games in which a team converted at least ten third downs.

3DP -- Third Down Percentage. The team's third down conversion percentage in the referenced game.

Sample Query: $\text{p:3DP} \geq 50$

Sample Query Translation: The games in which a team converted at least half of their third downs attempts.

4DM -- Fourth Downs Made. The number of the team's successful fourth down attempts in the referenced game.

Sample Query: `p:4DM>=2 and W`

Sample Query Translation: The games in which a team converted at least two fourth down attempts and won.

4DA -- Fourth Downs Attempts. The number of the team's fourth down attempts in the referenced game.

Sample Query: `p:4DA=0 and L`

Sample Query Translation: The games in which a team did not attempt a single fourth down attempt and lost.

4DF -- Fourth Downs Failures. The number of unsuccessful fourth down attempts by the team in the referenced game.

Sample Query: `p:4DF >= 3`

Sample Query Translation: The games in which a team had at least three unsuccessful fourth down attempts

COMP -- Completions. The number of completed passes by the team in the referenced game.

Sample Query: `COMP>=20`

Sample Query Translation: The games in which the team had at least twenty completions.

CP -- Completion Percentage. The team completion percentage in the referenced game.

Sample Query: `CP>=75`

Sample Query Translation: The games in which the team had a completion percentage of at least 75%.

DIV -- Divisional Match-Up. This indicates that the combatants are from the same division.

Sample Query: `DIV and A and team = Seahawks`

Sample Query Translation: The Seahawks on the road vs a divisional opponent.

FD -- First Downs. The number of first downs by the team in the referenced game.

Sample Query: `FD >20 and L`

Sample Query Translation: Games in which a team had more than 20 first downs but lost.

FDP -- First Down Percentage. The percentage of offensive plays in which the team got a first down.

Sample Query: `FDP >= 35`

Sample Query Translation: Games in which a team moved the chains on at least 35% of their offensive plays.

FG -- Field Goals. The number of field goals by the team in the referenced game.

Sample Query: `FG >=3 and L`

Sample Query Translation: Games in which a team kicked at least three field goals and lost.

FUM -- Fumbles. The number of times the team fumbled the ball in the referenced game. This includes fumbles that they recovered.

Sample Query: `FUM>=5`

Sample Query Translation: Games in which the team fumbled at least five times.

FUML -- Fumbles Lost. The number of times the team turned over the ball to their opponent via a fumble in the referenced game.

Sample Query: $p:FUML=0$ and $pp:FUML=0$

Sample Query Translation: Games in which the team did not lose a fumble in each of their last two games.

GTGA -- Goal-to-Go Attempts. The number of times the team had a first down inside their opponent's ten-yard line in the referenced game.

Sample Query: $GTGA \geq 2$ and $p:TD=0$

Sample Query Translation: Games in which the team had at least two Goal-To-Go attempts, but did not score any touchdowns,

GTGF -- Goal-to-Go Failures. The number of times the team failed to get into the end zone from a first down inside their opponent's ten-yard line in the referenced game.

Sample Query: $GTGF \geq 2$

Sample Query Translation: Games in which the team failed to score a touchdown on at least two Goal-To-Go attempts.

GTGM -- Goal-to-Go Made. The number of times the team scored a touchdown from a first down inside their opponent's ten-yard line in the referenced game.

Sample Query: $GTGM = GTGA$

Sample Query Translation: Games in which the team scored a touchdown on all of their Goal-To-Go attempts. Note that this includes games in which they had zero Goal-To-Go attempts.

HWP -- Home Winning Percentage. The current home winning percentage of the team for the current season.

Sample Query: H and $HWP > 50$ and $o:AWP > 50$

Sample Query Translation: Games in which the home team is better than 500 at home and the away team is better than 500 on the road.

INC -- The number of incomplete passes the team had in the referenced game.

Sample Query: $INC < 10$

Sample Query Translation: The games in which the team had fewer than ten incomplete passes.

INT -- Interceptions. The number of interceptions the team threw in the referenced game. Note that interceptions, like fumbles, is an *offensive* stat. To get the results when a team intercepted two of their opponent's passes, you need to use: $o:INT=2$

Sample Query: $p:INT \geq 2$ and $pp:INT \geq 2$

Sample Query Translation: The games in which the team threw at least two interceptions in each of their previous two games.

M1 -- Margin at the End of the First Quarter. The team's margin at the end of the first quarter in the referenced game. Positive margins means that the team was ahead and negative margins indicate that the team was behind.

Sample Query: $M1 \leq -7$ and W

Sample Query Translation: The games in which the team was behind by at least a touchdown at the end of the first quarter and won the game.

M2 -- Margin at the End of the Second Quarter. The team's margin at the end of the second quarter in the referenced game. Positive margins means that the team was ahead and negative margins indicate that the team was behind.

Sample Query: $M2=0$ and W

Sample Query Translation: The games in which the team was tied at the half and won the game.

M3 -- Margin at the End of the Third Quarter. The team's margin at the end of the third quarter in the referenced game. Positive margins means that the team was ahead and negative margins indicate that the team was behind.

Sample Query: $M3 \geq 10$ and L

Sample Query Translation: The games in which the team was ahead by more than ten points at the end of the third quarter and lost the game.

NDIV -- Non-Divisional Match-Up. This indicates that the team's opponent is not from their division in the referenced game.

Sample Query: H and NDIV and n:A and n:DIV

Sample Query Translation: The team is at home vs a non-divisional opponent and they have a divisional opponent on the road in their next game.

NOTD -- Non-Offensive Touchdowns. This is the number of non-offensive touchdowns the team scored in the referenced game. It includes punt returns for touchdowns, kick returns for touchdowns, fumble returns for touchdowns and interception returns for touchdowns.

Sample Query: H and NDIV and n:A and n:DIV

Sample Query Translation: The team is at home vs a non-divisional opponent and they have a divisional opponent on the road in their next game.

OFPL -- Offensive Plays. This is the number of offensive plays the team had in the referenced game.

Sample Query: $OFPL \geq 60$ and $FD < 10$

Sample Query Translation: The team had at least 60 offensive plays and fewer than ten first downs.

OT -- Overtime. This indicates the number of overtime sessions the team played in the referenced game.

Sample Query: $OT > 0$ and H and margin = -3

Sample Query Translation: The games in which the home team lost by three points in overtime.

P1 -- Points Scored in the First Quarter. This indicates the number of points the team scored in the first quarter in the referenced game.

Sample Query: team = Patriots and $o:P1 \geq 10$

Sample Query Translation: The games in which the Patriots allowed at least ten points in the first quarter.

P2 -- Points Scored in the Second Quarter. This indicates the number of points the team scored in the second quarter in the referenced game.

Sample Query: team = Lions and $P2 \geq 10$ and $o:P2 \geq 10$

Sample Query Translation: The games in which the Lions scored at least ten points in the second quarter and allowed at least ten points in the second quarter.

P3 -- Points Scored in the Third Quarter. This indicates the number of points the team scored in the third quarter in the referenced game.

Sample Query: $P1+P2+P3=0$ and W

Sample Query Translation: The games in which the team was shut out in each of the first three quarters and won the game.

P4 -- Points Scored in the Fourth Quarter. This indicates the number of points the team scored in the fourth quarter in the referenced game.
 Sample Query: P4 = 0 and H
 Sample Query Translation: The games in which the home team was shut out in the fourth quarter.

PEN -- Penalties. This indicates the number of accepted penalties the team had in the referenced game.
 Sample Query: PEN >= 10
 Sample Query Translation: The games in which the team had at least ten penalties.

PENY -- Penalty Yards. This indicates the number of penalty yards the team had in the referenced game.
 Sample Query: PENY >= o:PENY + 100
 Sample Query Translation: The games in which the team had at least 100 more yards of penalties than their opponent.

PFD -- Passing First Downs. This indicates the number of passing first downs the team had in the referenced game.
 Sample Query: PFD >= 15
 Sample Query Translation: The games in which the team had at least 15 first downs through the air.

PENFD -- Penalty First Downs. This indicates the number of first downs the team had as a result of their opponent's in the referenced game.
 Sample Query: PENFD >= 10
 Sample Query Translation: The games in which the team had at least 10 first downs as a result of an opponent's penalty.

PO -- Playoffs. This indicates that the referenced game is a playoff game.
 Sample Query: PO and p:REG and NB and H
 Sample Query Translation: Games in which a team is playing at home in the first week of the playoffs.

PTD -- Passing touchdowns. The number of passing touchdowns a team had in the referenced game.
 Sample Query: PTD + o:PTD >= 10
 Sample Query Translation: Games that had a total of at least ten passing touchdowns.

PY -- Passing Yards. The number of net passing yards a team had in the referenced game. The opponent's sack yards are subtracted from total passing yards to get net passing yards.
 Sample Query: PY >= 300 and RY >= 200 and L
 Sample Query Translation: Games in which the team had 300-plus passing yards and 200-plus rushing yards but lost.

REG -- Regular Season. This indicates that the referenced game is a regular season game.
 Sample Query: REG and team=Colts and o:team=Patriots
 Sample Query Translation: Games in which the Colts played the Patriots during the regular season.

RFD -- Rushing First Downs. This indicates the number of rushing first downs the team had in the referenced game.
 Sample Query: RFD >= 10
 Sample Query Translation: The games in which the team had at least 10 first downs on the ground.

RTD -- Rushing Touchdowns. The number of rushing touchdowns a team had in the referenced game.

Sample Query: `RTD=0 and RFD>=15`

Sample Query Translation: Games in which the team had at least 15 rushing first downs but no rushing touchdowns.

RY -- The number of net rushing yards a team had in the referenced game. Rushes for a loss are included in the net rushing yards, but opponent's sack yards are not.

Sample Query: `RY>=200 and rushes<20`

Sample Query Translation: Games in which the team had 200-plus rushing yards on fewer than 20 carries.

RZA -- Red Zone Attempts. The number of drives in which the team ran a play at or inside the opponent's 20-yard line in the referenced game.

Sample Query: `RZA=0`

Sample Query Translation: Games in which the team did not run a play at or inside their opponent's 20-yard line.

RZM -- Red Zones Made. The number of drives in which the team ran a play at or inside the opponent's 20-yard line and scored a touchdown on that drive in the referenced game. Note that a successful field goal is not a successful Red Zone Attempt. It must be a touchdown.

Sample Query: `RZM=0 and RZA>=4`

Sample Query Translation: Games in which the team had at least four drives at or inside their opponent's 20-yard line but did not score a touchdown on any of them.

RZF -- Red Zone Failures. The number of drives in which the team ran a play at or inside the opponent's 20-yard line and did not score a touchdown on that drive in the referenced game.

Sample Query: `RZA=0`

Sample Query Translation: Games in which the team did not run a play inside their opponent's 20-yard line.

S1 -- Score after the First Quarter. The number of points scored at the end the first quarter by the team in the referenced game.

Sample Query: `S1=0 and o:S1=0`

Sample Query Translation: Games that were scoreless at the end of the first quarter.

S2 -- Score after the Second Quarter. The number of points the team had scored at the end the second quarter in the referenced game.

Sample Query: `S2=0`

Sample Query Translation: Games in which a team was scoreless at the half.

S3 -- Score after the Third Quarter. The number of points the team had scored at the end the second quarter in the referenced game.

Sample Query: `S3=0 and W`

Sample Query Translation: Games in which a team was scoreless at the end of the third quarter and won.

STDPAPG -- Season-To-Date Pass Attempts Per Game. The average number of pass attempts per game by the team in the current season.

Sample Query: `STDPAPG>30`

Sample Query Translation: Games in which the team averaged at least 30 pass attempts per game in the current season.

STDRAPG -- Season-To-Date Rushes Attempts Per Game. The average number of rushes per game by the team in the current season.

Sample Query: STDRAPG>=30

Sample Query Translation: Games in which the team averaged at least 30 rushes per game in the current season.

STDRZP -- Season-To-Date Red Zone Percentage. The team's success rate in the red zone in the current season.

Sample Query: STDRZP>40

Sample Query Translation: Games in which the team's success rate in the red zone in the current season is better than 40%.

STDYPPA -- Season-To-Date Yards per passing attempt. The team's average yardage gained per pass attempt. Pass attempts do not include sacks.

Sample Query: STDYPPA<10

Sample Query Translation: Games in which the team has a season-to-date yards per pass attempt of less than ten.

STDYPRA -- Season-To-Date Yards per rushing attempt. The team's season-to-date average yardage gained per rush attempt.

Sample Query: Bears and o:STDYPRA<3.5

Sample Query Translation: The Bears vs a team that has allowed an average of less than 3.5 yards per rush attempt in the current season.

SY -- Sack Yards. The team's total sack yards in the referenced game. Sacks are a defensive stat.

Sample Query: SY>25 and sacks>=4

Sample Query Translation: Games in which the team had at least four sacks and at least 25 sack yards.

TD -- Touchdowns. The number of touchdowns the team scored in the referenced game..

Sample Query: TD=0 and W

Sample Query Translation: Games in which the team won without scoring a touchdown.

TO -- Turnovers. The number of turnovers the team committed in the referenced game.

Sample Query: p:TO=0 and pp:TO=0

Sample Query Translation: Games in which the team did not commit a turnover in each of their previous two games.

TOM -- Turnover Margin. The number of turnovers the team committed minus the number of turnovers their opponent committed in the referenced game. Positive turnover margins indicate that the team committed more turnovers than their opponent in the referenced game.

Sample Query: p:TOM>=2 and pp:TOM>=2

Sample Query Translation: Games in which the team suffered a turnover margin of at least plus two in each of their previous two games.

TOP -- Time of possession. The time of possession of the team in the referenced game. To avoid the awkward "minutes:seconds" notation, the time of possession is stored in units of seconds.

To get the games in which a team had at least 34 minutes of possession, use: $TOP \geq 34 * 60$ or $TOP \geq 2040$.

Sample Query: $p:TOM < 1200$

Sample Query Translation: Games in which the team has a possession time of less than 20 minutes.

WP -- Winning Percentage. The team's current winning percentage before the referenced game.

Sample Query: $WP = 50$

Sample Query Translation: The results of games in which the team was 50% going into that game.

YPC -- Yards Per Completion. The team's yards per completion in the referenced game.

Sample Query: $YPC \geq 25$

Sample Query Translation: The results of games in which the team averaged at least 25 yards per completion.

YPP -- Yards Per Play. The team's average yards gained per offensive play in the referenced game.

Sample Query: $YPP \geq 8$

Sample Query Translation: The results of games in which the team averaged at least eight yards per play.

YPPT -- Yards Per Point. The team's yards of offense per offensive point in the referenced game. Note that defensive TDs and return TDs are not included, as this is a measure of the team's ability to make the most of their drives.

Sample Query: $YPPT \geq 20$

Sample Query Translation: The results of games in which the team averaged at least 20 yards of offense for every offensive point scored.

YPPA -- Yards Per Pass Attempt. The team's passing yards divided by the number of passes thrown in the referenced game. The number of passes thrown includes completions, incompletions and interceptions.

Sample Query: $YPPA \geq 12$

Sample Query Translation: The results of games in which the team averaged at least 12 yards per pass attempt.

YPPRA -- Yards Per Rush Attempt. The team's rushing yards divided by the number of rushing attempts in the referenced game.

Sample Query: $YPPRA < 3$

Sample Query Translation: The results of games in which the team averaged fewer than 3 yards per rush attempt.