

The SDQL Manual for Major League Baseball

Updated for 2010

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

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Using This Manual

This document describes how to use the Sports Data Query Language (SDQL) to perform serious research on Major League Baseball 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 MLB query page at Killersports.com, point your browser to:

<http://killersports.com/mlb.py/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 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.

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 MLB 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. For example, to find out how the Indians have performed at home in 2009, simply type the following into the SDQL text box, and they click the QUERY button.

1.

While the SDQL is very powerful and can perform advanced queries, it is very useful when investigating simple situations. For example, how do the Red Sox perform after a loss in which they were tied at the end of the sixth inning? This query is just this:

2.

The SDQL phrase p:M6=0 translates as, “previous margin after the sixth inning is zero,” which means that the game was tied after the sixth inning. The SDQL phrase p:L simply means that the team lost their previous game.

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

In sports, there are two combatants. To distinguish between them, SDQL calls 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. This will allow, for example, the investigation of how a team performs when they score at least five runs and it will allow the investigation of how the team performs when they allow at least five runs.

So, we now have access to both the team and their opponent’s performance parameters. Next, we have to be able to reference a particular game. For example. It is one thing to investigate how a MLB team performs when they score at least five runs, but it is also interesting to see how they perform the game after scoring at least five runs.

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 which 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 five runs, use:

1. (query)

Since there is no game reference on the parameter ‘runs’ 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 five runs, use:

2. (query)

To see how the Giants perform in games AFTER they scored at least five runs, use:

3. (query)

Each one of these 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.” For example, to see all the games in which any team struck out at least ten times, hit at least five home runs and won the game at home, use:

4. (query)

That’s it. This is the basic structure of the SDQL. This structure will allow the thorough interrogation and investigation of historical sports data.

Understanding this structure is the key to understanding the SDQL. Once you have a grasp of this structure, you will be able to perform your own investigations.

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 Indians' 2009 results.

1.

The computer will return a summary of all the results, as well as a listing of all the games. We can also get the Indians' results at home in 2009 as follows.

2.

or on the road.

3.

or all the games in which they scored at least six runs.

4.

The symbol >= just means greater than or equal to.

**Perform Your MLB queries at
KillerSports.com/mlb/query**



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

What about all the games in which the Indians scored three or fewer runs and won the game?

The SDQL is:

5. (query)

To get a listing of all the games in which the Indians scored at least one run in the first inning, the following SDQL text is used:

6. (query)

R1 is the number of runs the team scored in the first inning, similarly, R2 is the number of runs the team scored in the second inning, R3 is the number of runs the team scored in the first inning *et cetera*.

We can also investigate how they have performed when their starter lasts at least eight innings as follows:

7. (query)

The abbreviation SIP, as you might have guessed, stands for starter innings pitched.

Similarly, we can look up the Indians' results for games in which their starter lasted fewer than three innings.

8. (query)

There are, in fact, many parameters that can be investigated which involve the performance of the starting pitcher. To uncover how, for example, the Rays perform when their starter allows no home runs, use:

9. (query)

The SHRA represents starter home runs allowed.

To find out how the Reds have done at home when their starter allowed no walks, use the following:

10. (query)

Learning the SDQL by Example, continued

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SWA, as you might have guessed, is the abbreviation for starter walks allowed. To find out how the Athletics have done when their starter struck out at least ten batters, use the following:

11.

SSO is the abbreviation for starter strike outs.

To find out how the Mariners have done when their starter had a WHIP of less than 1 in that game, use:

12.

The WHIP is an abbreviation for walks and hits per inning pitched and SWHIP stands for Starter's WHIP. An updated listing of all the available SDQL parameters is given at KillerSports.com at the bottom of the query page.

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 Marlins have performed when their starter faces at least 30 batters, throws at least 120 pitches and lasts at least eight innings, type the following in the text query box.

13.

SHF is starter hitters faced and SPT is starter pitches thrown. As you can see, the combinations of parameters is virtually limitless.

To see how the Red Sox perform in games in which they hit at least three home runs and had at least ten hits, use:

14.

To see all the games in which the Tigers hit at least five home runs, use:

15.

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 with fewer than five hits.

16.

Also, you can find all the games in which a team had a five-plus runs lead and lost.

17. [query](#)

BL, of course, stands for biggest lead.

How about all the times a starter pitched a complete game and lost? The query is uncomplicated:

18. [query](#)

The shortcut PU is for pitchers used.

What about all the games in which a team's batters combined to strand at least 30 runners?

19. [query](#)

The shortcut LOB stands for left on base.

To see all the games in which a team struck out at least 15 times, use:

20. [query](#)

Or all the games in which a team led after each of the first eight innings but lost.

21. [query](#)

The shortcut IL stands for Innings Led and represents the total number of innings after which the team held the lead.

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 struck out, the number of home runs the team hit, the number of runs the team scored. 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 Mets and done vs the Yankees, use:

Learning the SDQL by Example, continued

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22. [query](#)

Note that all the records in the records table in the query output file for this query are the records of the Mets – not the Yankees. To see the Yankees’ records against the Mets, use:

23. [query](#)

The previous 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 had five home runs hit against them at home:

24. [query](#)

The `o:HR>=5` simply means that the opponent’s home runs is greater than or equal to five.

To see the games in which the Cardinals allowed at least 15 hits, use:

25. [query](#)

To see all the games in which a team no-hit their opponent, use:

26. [query](#)

For comparison, to see all the games in which a team was no-hit by their opponent, use:

27. [query](#)

Since the team parameter was not assigned in the preceding two examples, the computer simply returns the results for the entire league combined.

To see a listing of all the games in which Indians allowed at least eight walks, use:

28. [query](#)

For comparison, to see a listing of all the games in which Indians’ batters walked at least eight times, use:

29. [query](#)

Continuing, to see a listing of all the games in which Indians' batters and their opponent's batters walked at least eight times, use:

30. [query](#)

To see a listing of all the games in which the Angels allowed at least eight runs but won nonetheless, use:

31. [query](#)

To see a listing of all the games in which the Dodgers lost 1-0, use:

32. [query](#)

Recall, when a parameter has no prefix, it always points to the team rather than the opponent. In the previous query, the L has no prefix, meaning that it is the team that lost. In this case, the Dodgers.

To see a listing of all the games in which the Dodgers won by a final score of 3-2, use:

33. [query](#)

To allow maximum flexibility and power, the parameters can be compared with each other as well. For example, we can compare the number of hits the team had to the number of hits their opponent had. A query that demonstrates this is:

34. [query](#)

This will return all the games in which the Mets were outthit on the road but won the game.

Numbers can also be utilized to investigate the degree to which the team was outthit. For example, to see all the games in which the Mets were outthit by at least five hits but won nonetheless:

35. [query](#)

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

Learning the SDQL by Example, continued

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To view the complete listing of games in which a team struck out at least ten more times than their opponent, use:

36. [query](#)

To view the complete listing of the games in which a team left at least ten more men on base than their opponent, use:

37. [query](#)

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 Giants had more home runs than strike outs use:

38. [query](#)

The queries can be even a bit ridiculous. To see all the games in which the sum of a team's home runs and errors is greater than the sum of the number of pitchers their opponent used and the number of opponent's hits, use:

39. [query](#)

It's a pretty meaningless query, but it demonstrates the thoroughness with which the MLB data can be investigated with the SDQL. By the way, it only happened once over the past five seasons.

It is a common mistake to mix up the prefixes in complicated situations. For example, to see all the games in which a team's starter lasted nine innings on the road in Toronto, use:

40. [query](#)

Note that all the parameters without a prefix are those of the team. Only the parameters with the o prefix point to the opponent. The table below translates each of the three SDQL phrases of the above query.

SDQL Phrase	English Translation
SIP >= 8	the team's starter went at least eight innings.
A	the team was on the road.
o:team=BlueJays	the team's opponent was the Blue Jays.

1.3 THE p PREFIX

Another prefix that is a very useful tool when investigating the performance of MLB teams is **p**, which stands for previous. When the **p** prefix is in front of a parameter, it points to the team's previous game. So, to find out how the Royals perform AFTER a game in which they lost by at least ten runs, use:

41. [query](#)

To find out how the Cubs perform AFTER a game in which their starter did not make it out of the second inning, use:

42. [query](#)

To find out how the Giants perform when they are off a loss in which they scored at least six runs and has at least twelve hits, use:

43. [query](#)

Note that prefixes can be combined. So, the prefix 'po' points to the team's previous opponent. To find out the Rangers' results when they are off a loss in which they allowed at least three home runs, use:

44. [query](#)

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 one run in each of their last three games, use:

45. [query](#)

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 number of the Mets' hits have decreased over each of their two previous games, use:

46. [query](#)

Learning the SDQL by Example, continued

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Or, what about when the Marlins' number of strike outs have increased over each of the past two games?

47. `team = Marlins and p:SO > pp:SO > ppp:SO` (query)

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

48. `p:hits > po:hits and pp:hits > ppo:hits and ppp:hits > pppo:hits` (query)

An asterisk can be used as a multiplication sign so we can see, for example, how the Red Sox do when they struck out at least twice as many times in their previous game as in the game before that using:

49. `team = RedSox and p:SO >= pp:SO*2` (query)

The parameters “series game” and “series games,” which can be abbreviated SG and SGS respectively, can be combined to see, for example, how the Orioles perform in the third game of a three-game series when they lost the first two:

50. `team = Orioles and p:L and pp:L and SG = 3 and SGS = 3` (query)

The SG=3 tells the computer to include only games that are the third game of a series and SGS=3 tells the computer to include only games that are from a three-game series.

Similarly, we can see how the Braves perform in the third game of a road series when they won the first two as follows.

51. `team=Braves and p:W and pp:W and SG = 3 and SGS = 3 and A` (query)

1.4 THE s PREFIX

In baseball, the likelihood of a team winning a particular game depends strongly on their starting pitcher. A starter's performance can be based strongly on his performance in his last start(s). For example, did the starter have a quality start in his last outing? How many walks did he issue? How many strikeouts did he have? Did his team win? How many pitches did he throw? All of this and more can be investigated with the s prefix. The s prefix points the parameter following it back to the starter's last start. For example, to see the Blue Jays' results when they scored fewer than three runs in their starters' last start, use:

52. `team = BlueJays and s:runs < 3` (query)

For comparison, to see the Blue Jays' results when they scored fewer than three runs in their previous game, use the 'p' prefix like this:

53. `team = BlueJays and p:runs < 3` (query)

At this point it might be a good idea to summarize the prefixes and some prefix combinations. It is this syntax that gives the SDQL its power. Note that the parameter "runs" is used in this summary, but any parameter could be used.

SDQL Phrase	English Translation
runs	The number of runs the team scored in the game in question.
o:runs	The number of runs the team's opponent scored in the game in question.
p:runs	The number of runs the team scored in the team's previous game.
po:runs	The number of runs the team allowed in their previous game.
s:runs	The number of runs the team scored in their starter's last start.
pp:runs	The number of runs the team scored two games ago.
ppo:runs	The number of runs the team allowed two games ago.

To get the results for all the Diamondbacks' games in which their starter went at least eight innings in his last start, use:

54. `team = Diamondbacks and s:SIP >= 8` (query)

To get the results for all the Padres' games in which their starter is off quality starts in each of his last two starting assignments, use:

55. `team = Padres and s:QS and ss:QS` (query)

To get the results for the entire league combined when a starter is off a start in which he threw 120+ pitches, use:

Learning the SDQL by Example, continued

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56. [query](#)

To get the results for the Cubs when they lost their starter's last start in which the bullpen allowed at least three runs, use:

57. [query](#)

The shortcut BPR stands for bullpen runs allowed.

1.5 THE starter PARAMETER

As any MLB enthusiast knows, a key factor in determining the winner of a baseball game is the quality of the starting pitchers. Because of this, it is important to be able to query on the performance of an individual starter. The SDQL gives you this power. Querying on a particular starter is very similar to querying on a particular team.

First of all, to see all the games in which Johan Santana faced the Royals, use:

58. [query](#)

To see all the games in which Johan Santana faced the Royals in Kansas City, use:

59. [query](#)

To see how Brandon Webb's team has performed when he went at least 8 innings in his last start, use:

60. [query](#)

Any of the SDQL parameters can be used with the s prefix. For example, to see all the games in which Bronson Arroyo was the starter at home and his last three starts were on the road, use:

61. [query](#)

Similarly, to see all the games in which Jeff Suppan was the starter at home and his team lost on the road in his last two starts, use:

62. [query](#)

Also, to see the result of the games in which Carlos Zambrano was the starter at home and he is off a quality start on the road that the Cubs lost, use:

63. (query)

The AL, in this query, stands for away loss and the QS stands for quality start. A quality start is one in which the starter goes at least six innings and allows three or fewer earned runs.

To get a listing of all the games in which Felix Hernandez was the starter and he received a total of fewer than three runs of support in his last start, use:

64. (query)

To get a listing of all the games in which Felix Hernandez was the starter and his team allowed at least five walks in his last start, use:

65. (query)

Note that the 'so' prefix points the parameter, in this case "walks," back to the opponent in the starter's last start.

To get a listing of all the games in which Felix Hernandez was the starter and he allowed at least five walks in his last start, use:

66. (query)

The SWA stands for starter's walks allowed.

To get a listing of all the games in which Felix Hernandez was the starter and he struck out at least eight in each of his last two starts, use:

67. (query)

To get a listing of all the games in which Felix Hernandez was the starter and he allowed at least two home runs in his last start, use:

68. (query)

1.6 THE S PREFIX

So far, we have introduced the o, p and the s prefix. The next is the capital S. This points back to the starter's last start vs the current opponent. So, the S can be used to investigate revenge situations involving the starting pitcher.

To see how Doug Davis' teams have performed when he is starting at home against a team that scored 5+ runs on him the last time he faced them – and that start was on the road, use:

69. `starter = Doug Davis and S:SRA >= 5 and H and S:A` [query](#)

Note the difference between the upper case S and the lower case s. The capital S points back to the starter's last start vs the team's current opponent and the lower case s points back to the starter's last start. For comparison, to see how Doug Davis' teams have performed at home when he allowed at least five runs on the road in his last start, use:

70. `starter = Doug Davis and s:SRA >= 5 and H and s:A` [query](#)

For completeness, we present the SDQL for the situation in which Doug Davis is the starter and the starter in his team's last game allowed at least five runs...

71. `starter = Doug Davis and p:SRA >= 5` [query](#)

and to see the games in which Doug Davis was the starter and he allowed at least five runs, use:

72. `starter = Doug Davis and SRA >= 5` [query](#)

To help understand the difference between the previous three queries, we present the query output file for the Diamondbacks for the first 50 games of the 2009 season below.

team=Diamondbacks and season=2009 and date<20090531

SU: 22-28 (-0.6 rpg) average line: -107 / -104 on / against: -\$770 / +\$475 ROI: -13.0% / +8.2%
 O/U: 21-25-4 (0.3 rpg) average total: 8.9 over / under: -\$630 / +\$235 ROI: -11.4% / +4.3%

Runs Hits Errors Walks Strike Outs Grounders Fly Balls Team left on base

Team: 4.3 8.3 0.84 3.5 8.0 9.1 9.6
 Opp: 4.9 9.4 0.74 3.3 7.2 10.3 9.4 7.1

Recap	Date	Site	Team	Starter	Opp	Starter	Score	SUm	W/L	O/U	O/U	Hits	Errors	Line	Total	Innings
view	04-06-2009	home	Diamondbacks	Webb - R	Rockies	Cook - R	9-8	1	W	9.5	O	12-10	0-0	-160	7.5	9
view	04-07-2009	home	Diamondbacks	Haren - R	Rockies	Jimenez - R	0-3	-3	L	-6.0	U	5-6	0-0	-150	9.0	9
view	04-08-2009	home	Diamondbacks	Davis - L	Rockies	Morales - L	2-9	-7	L	1.0	O	5-9	2-0	-130	10.0	9
view	04-10-2009	home	Diamondbacks	Garland - R	Dodgers	McDonald - R	9-4	5	W	3.0	O	10-8	1-1	-105	10.0	9
view	04-11-2009	home	Diamondbacks	Petit - R	Dodgers	Stults - L	2-11	-9	L	2.5	O	6-11	0-1	-120	10.5	9
view	04-12-2009	home	Diamondbacks	Haren - R	Dodgers	Wolf - L	1-3	-2	L	-5.0	U	3-6	1-0	-150	9.0	9
view	04-13-2009	home	Diamondbacks	Davis - L	Cardinals	Wellemeyer - R	1-2	-1	L	-7.5	U	9-8	0-1	-105	10.5	9
view	04-14-2009	home	Diamondbacks	Scherzer - R	Cardinals	Carpenter - R	7-6	1	W	4.0	O	12-11	0-2	130	9.0	10+
view	04-15-2009	home	Diamondbacks	Garland - R	Cardinals	Pineiro - R	7-12	-5	L	9.0	O	10-13	3-1	-110	10.0	9
view	04-17-2009	away	Diamondbacks	Haren - R	Giants	Sanchez - L	0-2	-2	L	-5.5	U	3-6	1-1	-145	7.5	9
view	04-18-2009	away	Diamondbacks	Davis - L	Giants	Lincecum - R	2-0	2	W	-5.5	U	7-8	1-1	145	7.5	9
view	04-19-2009	away	Diamondbacks	Scherzer - R	Giants	Johnson - L	0-2	-2	L	-6.0	U	1-7	0-0	-105	8.0	9
view	04-20-2009	home	Diamondbacks	Garland - R	Rockies	Marquis - R	6-3	3	W	-1.5	U	10-8	1-2	-115	10.5	9
view	04-21-2009	home	Diamondbacks	Petit - R	Rockies	Morales - L	6-9	-3	L	5.0	O	11-15	1-2	-120	10.0	9
view	04-22-2009	home	Diamondbacks	Haren - R	Rockies	Rosa - L	2-0	2	W	-7.0	U	6-9	0-0	-190	9.0	9
view	04-24-2009	home	Diamondbacks	Davis - L	Giants	Lincecum - R	1-5	-4	L	-2.5	U	6-12	0-0	110	8.5	9
view	04-25-2009	home	Diamondbacks	Scherzer - R	Giants	Johnson - L	3-5	-2	L	-0.5	U	8-8	0-0	-140	8.5	9
view	04-26-2009	home	Diamondbacks	Garland - R	Giants	Cain - R	5-4	1	W	0.0	P	9-14	0-0	-110	9.0	10+
view	04-27-2009	home	Diamondbacks	Haren - R	Cubs	Lilly - L	7-2	5	W	0.5	O	8-3	0-3	-150	8.5	9
view	04-28-2009	home	Diamondbacks	Petit - R	Cubs	Zambrano - R	3-11	-8	L	4.5	O	10-15	0-0	110	9.5	9
Recap	Date	Site	Team	Starter	Opp	Starter	Score	SUm	W/L	O/U	O/U	Hits	Errors	Line	Total	Innings
view	04-29-2009	home	Diamondbacks	Davis - L	Cubs	Dempster - R	10-0	10	W	0.5	O	8-2	0-0	110	9.5	9
view	04-30-2009	away	Diamondbacks	Scherzer - R	Brewers	Suppan - R	1-4	-3	L	-4.0	U	7-8	0-0	100	9.0	9
view	05-01-2009	away	Diamondbacks	Garland - R	Brewers	Parra - L	5-2	3	W	-2.5	U	8-9	1-1	135	9.5	9
view	05-02-2009	away	Diamondbacks	Haren - R	Brewers	Looper - R	4-1	3	W	-3.0	U	9-5	1-0	-120	8.0	9
view	05-03-2009	away	Diamondbacks	Petit - R	Brewers	Bush - R	3-4	-1	L	-2.0	U	5-8	0-1	130	9.0	9
view	05-04-2009	away	Diamondbacks	Davis - L	Dodgers	Stults - L	2-7	-5	L	0.0	P	6-10	2-0	125	9.0	9
view	05-05-2009	away	Diamondbacks	Scherzer - R	Dodgers	Weaver - R	1-3	-2	L	-5.0	U	7-5	2-1	110	9.0	9
view	05-06-2009	away	Diamondbacks	Garland - R	Padres	Peavy - R	3-1	2	W	-3.0	U	6-5	4-0	160	7.0	9
view	05-07-2009	away	Diamondbacks	Haren - R	Padres	Young - R	3-4	-1	L	0.0	P	5-13	0-1	-120	7.0	10+
view	05-08-2009	home	Diamondbacks	Petit - R	Nationals	Martins - R	4-5	-1	L	-1.0	U	12-11	0-0	-120	10.0	9
Recap	Date	Site	Team	Starter	Opp	Starter	Score	SUm	W/L	O/U	O/U	Hits	Errors	Line	Total	Innings
view	05-09-2009	home	Diamondbacks	Davis - L	Nationals	Lannan - L	1-2	-1	L	-6.5	U	8-5	2-2	-125	9.5	9
view	05-10-2009	home	Diamondbacks	Scherzer - R	Nationals	Olsen - L	10-8	2	W	9.0	O	17-13	1-2	-170	9.0	9
view	05-11-2009	home	Diamondbacks	Garland - R	Reds	Arroyo - R	5-13	-8	L	8.5	O	11-18	1-1	-125	9.5	9
view	05-12-2009	home	Diamondbacks	Haren - R	Reds	Owings - R	1-3	-2	L	-4.5	U	6-6	0-1	-190	8.5	9
view	05-13-2009	home	Diamondbacks	Augenstein - R	Reds	Cueto - R	3-10	-7	L	4.0	O	5-14	2-1	120	9.0	9
view	05-15-2009	away	Diamondbacks	Davis - L	Braves	Vazquez - R	3-4	-1	L	-1.5	U	7-7	1-0	165	8.5	9
view	05-16-2009	away	Diamondbacks	Scherzer - R	Braves	Kawakami - R	12-0	12	W	3.5	O	11-7	0-1	110	8.5	9
view	05-19-2009	away	Diamondbacks	Garland - R	Marlins	Johnson - R	5-3	2	W	0.0	P	6-12	2-3	160	8.0	9
view	05-20-2009	away	Diamondbacks	Davis - L	Marlins	Volstad - R	11-9	2	W	11.5	O	14-15	2-2	120	8.5	10+
view	05-20-2009	away	Diamondbacks	Augenstein - R	Marlins	Penn - R	6-8	-2	L	4.5	O	9-9	3-0	110	9.5	9
Recap	Date	Site	Team	Starter	Opp	Starter	Score	SUm	W/L	O/U	O/U	Hits	Errors	Line	Total	Innings
view	05-21-2009	away	Diamondbacks	Scherzer - R	Marlins	Miller - L	4-3	1	W	-1.5	U	7-7	0-0	-120	8.5	9
view	05-22-2009	away	Diamondbacks	Buckner - R	Athletics	Cahill - R	2-1	1	W	-6.5	U	7-6	2-0	130	9.5	9
view	05-23-2009	away	Diamondbacks	Haren - R	Athletics	Gonzalez - R	8-7	1	W	7.5	O	15-14	0-0	-145	7.5	10+
view	05-24-2009	away	Diamondbacks	Garland - R	Athletics	Outman - L	2-6	-4	L	-0.5	U	6-10	0-1	130	8.5	9
view	05-25-2009	home	Diamondbacks	Davis - L	Padres	Gaudin - R	7-9	-2	L	7.0	O	7-13	1-1	-125	9.0	10+
view	05-26-2009	home	Diamondbacks	Scherzer - R	Padres	Correia - R	6-5	1	W	2.0	O	10-10	0-0	-155	9.0	9
view	05-27-2009	home	Diamondbacks	Buckner - R	Padres	Peavy - R	5-8	-3	L	4.0	O	11-11	2-0	145	9.0	9
view	05-28-2009	home	Diamondbacks	Haren - R	Braves	Lowe - R	5-2	3	W	-1.0	U	11-7	0-1	-125	8.0	9
view	05-29-2009	home	Diamondbacks	Garland - R	Braves	Jurrjens - R	6-10	-4	L	7.0	O	11-13	2-2	110	9.0	9
view	05-30-2009	home	Diamondbacks	Davis - L	Braves	Vazquez - R	3-2	1	W	-4.0	U	10-8	0-0	110	9.0	10+

Learning the SDQL by Example, continued

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Let's focus on the last game in the listing – the game in which the Diamondbacks were hosting the Braves on 5/30/09. The prefix p points to the team's last game, which was on 5/29/09. The prefix s points back to the starter's last start, which was on 5/25/09 vs the Padres. The Prefix S points back to the starter's last start vs the Braves, which was on 5/15/09.

The query:

73. `starter = Doug Davis and S:margin = -1` query

would include the 5/30/09 game because the Diamondbacks lost by one run in their starter's last start vs their current opponent, in this case the Braves.

The query:

74. `starter = Doug Davis and so:runs = 9` query

would include the 5/30/09 game because the Diamondbacks' opponent scored nine runs in their starter's last start.

And the query:

75. `starter = Doug Davis and p:margin = -4` query

would include the 5/30/09 game because the Diamondbacks lost their previous game by 4 runs.

As usual, any parameter can be pointed to the starter's previous start vs an opponent. For example, to find all the games in which a starter is facing an opponent against whom he threw at least 100 pitches, lasted at least 6 innings, allowed fewer than six hits and did not allow a home run in his last start against them, use:

76. `S:SPT >= 100 and S:SIP >= 6 and S:SHA <= 6 and S:SHRA = 0` query

For the curious, check out Edwin Jackson's results in this situation.

1.7 THE P PREFIX

The P Prefix points the parameter back to the team's previous game vs their opponent. In baseball, this is often the same as the team's last game because in baseball the teams play a series of games against each other rather than isolated games as is usually the case in the NBA and NFL.

The P prefix is primarily used for revenge. For example, to see how the Mets have done at home vs a team that beat them on the road the last time they faced each other, use:

77. (query)

Or, to see how the Phillies have done at home vs a team that beat them the last time they faced each other, despite the fact that the Phillies held the lead after the seventh inning use:

78. (query)

M7 is the shortcut for the margin after the seventh inning.

To see how the Orioles have done when seeking revenge for a road loss in which they scored three runs in the top of the first inning, use:

79. (query)

1.8 THE n PREFIX

This is the last of the 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 Angels perform in the last game of a six-game road trip?

80. (query)

Or, how do the Red Sox perform at home when their next game is on the road vs the Yankees?

81. (query)

The next prefix can be used to see all the games BEFORE the Indians allowed at least 10 runs.

82. (query)

The prefix 'no' stands for next opponent.

The “Search All” Feature

2.1 Search All: Teams

Let’s say we want to know which team is the best in the league in the third game of a series when they lost the first two games. Rather than searching on each team individually and keeping track of each result, simply use the team parameter, but leave it undefined. That is, enter the following in the query text box:

83. [query](#)

Leaving the team parameter undefined will instruct the remote supercomputer to perform the query for each team individually and then output the results, ranked from best to worst.

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

So, by not assigning a particular team, the computer simultaneously performs thirty queries, one for each MLB team and then outputs the results ranked from best to worst. To see the expanded results for any team, simply click on the team name in the rightmost column.

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 MLB team is the best performing when they are off a loss in which they held a multiple-run lead. To do this simply enter:

84. [query](#)

or how about the best performing team when their starter is off a quality start in which the team lost? The SDQL below will do the job.

85. [query](#)

What about a compete ranking of all the teams in the league in games in which neither team hit a home run?

86. [query](#)

To answer the question, “Which two major league baseball teams have a winning record in home games in which they allowed two runs in the top of the first inning?,” use the following SDQL.

87. [query](#)

To uncover which MLB team is 145-0 (at this writing) at home when they are leading after the eighth inning, use the following SDQL.

88. (query)

The SDQL date format is eight characters. The first four are the year, the next two are the month and the last two are the number of the day of the month. In this example, 20060830 is August 30th, 2006.

Season is also a search parameter. Its use is demonstrated in the following query, which reveals the record of each team since the start of the 2005 season in road games in which they trailed by more than 3 runs at anytime during the game.

89. (query)

One major league team is a defeatist 1-92 in this situation.

Even simple queries can reveal very interesting information. For example, which Major League team has the best record on Sunday?

90. (query)

To check the results on Sunday for 2009 only, just direct the computer to include only 2009 results as follows:

91. (query)

Or, to get the ranking of the MLB teams when they are off game in which their bullpen allowed at least three runs, use:

92. (query)

Similarly, to get the ranking of all the MLB teams in games in which they led for at least seven innings since April 7th, 2005, use:

93. (query)

How about them Angels?

The “Search All” Feature, continued

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Invent your own queries and e-mail the results into sports broadcasters and the media. You may get published!

2.2 Search All: Starters

The “search all” feature is a great way to uncover the best starter in the league in a given situation. For example, to see the best starter at home, just use:

94. [query](#)

The computer will get the results for EVERY starter in the league at home and rank them from best to worst. Remember, you can choose how to rank the starters from “best” and “worst.” You can use number of wins, win percentage or net profit.

The query example above is a simple example. A more sophisticated one might involve a starter off a bad start. For example, to see the starter that produces the best record for his team when that starter lasted fewer than four innings and allowed more than four runs in his last start, use:

95. [query](#)

The query doesn’t have to refer to the starter’s last start. For example, to get a listing of all the starters in the league when their team has lost at least three straight, use:

96. [query](#)

or, equivalently,

97. [query](#)

Starters that produce wins in this situation are called “streak - stoppers.”

As usual, any SDQL parameters can be used. For example, to see the starter that produces the best record for his team when that starter walked more batters than he struck out in his previous start, use:

98. [query](#)

To see the starter that produces the best record for his team when the starter allowed no runs in his previous start, use:

99. [query](#)

To see a ranking of the starters at home on Sunday, use:

100. [query](#)

To see a ranking of the starters on the road when the attendance is 40,000+, use:

101. [query](#)

To see a ranking of the starters when they went seven-plus innings in their last start and their team lost, use:

102. [query](#)

To see a ranking of the starters when their bullpen allowed 3+ runs in his last start, use:

103. [query](#)

To see a ranking of the starters when their WHIP was less than one in each of their last two starts, use:

104. [query](#)

To see a ranking of the starters when the opposing starter has a season-to-date ERA of less than three, use:

105. [query](#)

To see a ranking of the starters when their opponent has lost at least their last three games, use:

106. [query](#)

To see a ranking of the starters when the home plate umpire is Tony Randazzo, use:

107. [query](#)

The “Search All” Feature, continued

22

To see a ranking of the starters in day games when their opponent’s starter is lefty, use:

108.

The shortcut STL translates as Starter Throws Left.

To see a ranking of the starters in the first game of a home series, use:

109.

As before, the possibilities are virtually endless. The query can be simple:

110.

the query can be sophisticated

111.

and the query can be a bit ridiculous

112.

You’re in control. You think of the queries. You discover.

2.3 Search All: “Anything Else”

The “search all” feature can be applied to ANY parameter. For example, to see a grouping of all the St Louis Cardinals’ games by the number of home runs they hit in the game, use:

113.

To rank the result by number of home runs hit, click on the [home runs](#) at the top of the right-most column.

Similarly, to get the Padres’ records by number of hits they had, use:

114.

To get the Marlins' records broken down by the number of innings their starter pitched, use:

115. [query](#)

To get the Dodgers' records broken down by the number of hits they allowed, use:

116. [query](#)

To get the Blue Jays' records broken down by the number of runs their bullpen allowed, use:

117. [query](#)

To get the Pirates' records at home broken down by the margin at the end of six innings, use:

118. [query](#)

To get the Red Sox' records broken down by the number of hits they had in the previous game, use:

119. [query](#)

To get the Tigers' records broken down by the number of errors they had in the previous game, use:

120. [query](#)

To get the Indians' records broken down by the number of innings their starter pitched in his previous start, use:

121. [query](#)

To get the Indians' records broken down by the total number of innings their starter pitched in his previous two starts, use:

122. [query](#)

To get the Angels' records broken down by the total number of runs their bullpen allowed in their starters previous three starts, use:

The “Search All” Feature, continued

123.

Searches on the performance of the entire league as a whole can be performed simply by not assigning a team. Without a team given, the computer performs the search on the entire league.

To get the league’s records broken down by the total number of runs they scored, use:

124.

To get the league’s records broken down by number of innings their starter pitched, use:

125.

To get the league’s records broken down by their current winning or losing streak, use:

126.

To get the league’s records broken down by number of runs their bullpen allowed, use:

127.

The possibilities, as you might imagine, are myriad.

You can even perform two searches simultaneously, although you might “time-out” if the search involves too many combinations.

The usefulness of a double search is apparent, for example, when looking at a starter’s performance in a particular situation. Let’s say you’ve uncovered the fact that Randy Wolf’s teams are 15-4 when he went six-plus innings in his last start and the bullpen allowed at least two runs. To “fine-tune” this by the site of the current game and the site of his last start, leave both the site and the site of the previous start unassigned, as follows:

128.

Here, the computer will perform searches on all four combinations of site and s:site and output the results for each.

If you have a broadband connection, you can try queries like this one:

129. [query](#)

This query has three “search-alls.” It will rank the league’s results for all possible combinations of the streak the team is on, the streak the opponent is on and the site. Currently, the most interesting is that of a home team on a two-game losing streak vs a team that on a two-game winning streak.

130. [query](#)

These home teams are 281-203 for a winning percentage of 58.1%. Check out the current record of teams in this situation by performing the query yourself. Then do another “search-all” on the game number of the series like this:

131. [query](#)

Very interesting.

Research

26

If you made it this far into the manual, you are well on your way to becoming an SDQL Query Master. You also have already performed a few research-type queries. Here we focus on these types of queries exclusively.

3.1 Indians Come From 10-0 Deficit to Win!

For example, let's say the Indians just came from behind to beat the Rays 11-10 after trailing 10-0, as they did on 5/25/2009. An interested fan, Cleveland or otherwise, might wonder when the last time a team came back from a ten-run deficit. This query returns such games:

132. [query](#)

If you want to know when the last time it happened, you'll have to perform the query yourself.

Other questions come to mind as well. In their 11-10 win the Indians scored seven runs in the bottom of the ninth to win. To see when the last something like this happened, use this query:

133. [query](#)

Again, you'll have to perform this one yourself. C'mon, it's so easy.

In their 11-10 win over the Rays, the Indians, of course, never led until they won the game. Let's do some research to see how often the Indians pull off this feat. This query isolated these games:

134. [query](#)

The game listing reveals that the Indians have taken their first lead of the game in their last at bat to win – seven times in 2004, six times in 2005, four times in 2006, six times in 2007, NONE in 2008 and six times in 2009. To get the records by season, just add and season as follows:

135. [query](#)

Adding “and season” to the end of any query is a quick and easy way to break the results by season. And clicking at the top of the season column, ranks the results in chronological order.

Continuing, one might wonder which team does this the most often? This query tells you.

136. [query](#)

You can find the “record” for the most such wins in a season.

137. (query)

The Dodgers pulled this off 13 times in 2004 and no one had matched this mark since.

3.2 The Walk-Off

An interesting win to investigate with the SDQL is the walk-off. The home team, of course, is the one that can have a walk-off win. For the home to have a walk-off victory, they must bat in the bottom of the ninth and win. That's it. The query is simple:

138. (query)

for walk-off-win. To find the results by team, search all teams like this:

139. (query)

To easily see which teams have the most and least walk-off wins, click on the W in the heading of the leftmost column to rank by the number of wins in this situation.

To see which team has the most walk-off wins in a single season, perform a search-all on both team and season. Like this:

140. (query)

The extremes in 2009 were the Yankees, who led the league with 17 walk-off-wins. On the other end was the Royals, who had only two walk-offs in 2009 and both were in May.

To search on the situation when a team had a walk-off-win in their last game, use:

141. (query)

Similarly, you can search on the situation when a team had a walk-off-win in their starter's last start as follows:

142. (query)

3.3 Blowing Leads

Let's say that you notice that teams seems to be blowing leads late in the game recently and you wonder how often a team loses the game when they hold the leads after the eighth inning. The query is simply:

143. [query](#)

Breaking this down by season with:

144. [query](#)

This query reveals that there are about 100 games per season in which a team takes a lead in the ninth inning and loses.

Well, what about teams blowing multiple run leads? Poking around a little bit more reveals something interesting. In 2009 there were four games in which the home team trailed by more than four runs after seven innings and won. In all of 2008, there were only two such games. In 2007 it happened only once. In 2006, it happened twice. In 2005, only once and in 2004 it happened twice. So, 2009 was an unusual season for home teams coming back from huge deficits to win. The query below reveals this trend. Note that we are looking here at the team that came back from the deficit rather than the team that blew the lead.

145. [query](#)

3.4 Interesting Streaks

Sometimes the SDQL is used to uncover results not related to a team's win-loss record in a particular situation. Sometimes it is used to see how many times a particular result happened.

For example, what's the longest streak of games in which a team has never held the lead? The query below reveals all the games in which a team never led for their third straight game.

146. [query](#)

This query shows a lot of games, so we'll have to reduce this by adding more previous games. How about six games?

147. [query](#)

This query output file shows 22 games. These games were the sixth straight in which the team

never led. Let's add another game. To compress the query text, we'll set all the BL's equal to zero at the same time,

148. `BL = p:BL = pp:BL = ppp:BL = pppp:BL = ppppp:BL = pppppp:BL = 0` (query)

Here we find only four streaks. We can investigate the Cubs' streak further as follows:

149. `team = Cubs and season = 2005 and 5 < month < 8` (query)

The Cubs' seven-game-without-a-lead streak began on June 30th and lasted until the evening game of July 7th, when they took a 2-0 lead in the top of the fourth inning vs the Braves in the second game of a double-header. They lost the game 9-4, but at least they held the lead.

We can investigate the Tigers' streak further as follows:

150. `team = Tigers and season = 2005 and month = 9` (query)

The seven straight games in which the Tigers never lead were from September 1st through the 7th, 2005. They lost 12-3, 9-1, 6-2, 2-0, 2-0, 6-1, 4-1. In their next game, they scored two in the top of the first to take their first lead in over a week. However, they lost 4-2.

To check out the Blue Jays' streak, use the following query:

151. `team = BlueJays and season = 2008 and month = 6` (query)

The query output file reveals that the Jays' streak went from the 14th through the 21st of June, 2008. They won on the 22nd by a margin of 8-5 as a 130 favorite. They, too, scored 2 runs in the top of the first to take their first lead in over a week.

To check out the Indians' streak, use the following query:

152. `team = Indians and season = 2009 and month = 9` (query)

The Indians no-lead streak started on the 16th of September, 2009 and lasted until the 23rd. On the 24th, they took a 2-0 lead on the Tigers in the bottom of the third inning, but ended up losing 4-2.

So, there are no eight-game, never-led streaks since 2004.

How about number of straight games in which one team hit at least three home runs? To start, we'll see how many teams did it three times in a row.

153. `HR >= 3 and p:HR >= 3 and pp:HR >= 3` query

The computer returned 49 games from 2004 through 2009, so we have to add more games to the streak. Let's try five straight three-home-run games and see what we get. This will give us the desired result:

154. `HR >= 3 and p:HR >= 3 and pp:HR >= 3 and ppp:HR >= 3 and pppp:HR>=3` query

There's only one game. It was the Cubs on July 24th 2004. So, the Cubs hit at least three home runs in their fifth straight game on July 24th 2004. They lost the game 4-3. In their next game, they hit no home runs, ending their streak of three-homer games at five – a feat no team has matched since. There's so much more to discover. For example, what is the fewest number of pitches a starter needed to throw for a complete game, nine-innings win? What is the longest streak of error-free games, two-error games, 15+ hit games, consecutive quality starts by a starter, consecutive one-run losses, consecutive come-from-behind wins, most road sweeps in a season, et cetera, et cetera, et cetera.

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 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 games that day are revealed -- and the records are updated with games that occur throughout the season.

Besides the "save trend" and the "tables" feature, there is averaging, and sums, and conditionals. For example, when a team is at home and they have averaged five runs per game over their past 10 home games.

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.

attendance – This is the reported attendance. It can be useful to see how teams perform as a function of the attendance.

Sample query: **attendance<10000**

biggest lead – This is the biggest lead for a team in the game. It can be useful to see how teams perform after a loss in which they held, say, a three-run lead, or off a win in which they never trailed.

Sample query: **biggest lead = 0**
Shortcut: **BL**

BPRA – This is the short cut for Bull Pen Runs Allowed. It is simply the total number of runs scored by the opponent minus the total number of runs allowed by the starter.

Sample query: **BPRA = 0**

conference – This is league – either NL or AL. It can be useful, for example, to see how teams perform in interleague games.

Sample query: **conference = NL**
Shortcut: **C**

Note: The shortcut **C** means that the teams are from the same league. That is, the game is NOT an interleague game. To get interleague games, use: **not C**

D – This is the shortcut for dog or underdog. In baseball, this means that the line is positive. The long way to indicate that the team is a dog is to use: **line>0**

date – This is the date in eight-digit format. This is useful for setting a search-from date, for a recently emerging trend or system. June 10th 2006 is represented as 20060610.

Sample query: **date>20050804**

day – This is the day of the week. The day must be spelled out completely with the first letter capitalized. This is useful to uncover how teams perform on a particular day of the week.

Sample query: **day=Sunday**

DAY – This is the shortcut for day games. That is, the start time is before 1800 hours (6 pm) local time.

F – This is the shortcut for favorite. In baseball a team is favored when their line is less than minus 105. The full text for indicating a favorite is: **line < -105**

FGS – This is the shortcut for the first game of a series. It does not include isolated make-up games. That is, it does not include a one-game series.

HR – This is the shortcut for the total number of home runs the team hit in a game.

Sample query: **HR = 0**

HPU – This is shortcut for Home Plate Umpire. It can be used to investigate the degree to which a home plate umpire tends to produce overs or unders or if they favor the home team. Also, it can be used to find the result of any team when a particular ump is behind the plate.

Sample query: **HPU = Ted Barrett**

IL – This is a shortcut that can be used for total number of innings the team led. Its values range from 1 – 9. Note that if a team led for nine innings, it does not mean that they never trailed. A team that scored one run in the bottom of the six to win 1-0 never trailed but they did not lead after each inning. For a team to lead after each of the nine innings, they must score in the first and never trail after any complete inning thereafter.

Sample query: **IL=9**

IT – This is a shortcut that can be used for total number of innings after which the game is tied. It does not include extra innings.

Sample query: **IT >= 5**

left on base – This is the number of runners left on base by the hitters. This is not to be confused with team-left-on-base. The difference can be demonstrated with two examples. In one inning the first three batters walk and the next three strike out. The “left on base” for this inning is NINE – three for each batter. If the first two batters strike out, the next three walk and the last batter strikes out, the “left on base” is only three. In both cases, the “team left-on base” is three. This parameter is useful, for example, to see how a team performs after a one-run loss in which their hitters stranded at least five more runners than the opponent.

Sample query: **left on base < 5**

Shortcut: **LOB**

LGS – This is a shortcut that can be used for the last game of a series. It does not include a one-game series that is a make-up.

NGT – This is a shortcut for a night game. A night game is defined as any game that has a scheduled start time of after 1800 hours, which is 6:00 pm EST.

line – This is the Vegas line. The lines are stored in five cent increments and ten cent lines are used. For example, a pick game is when both teams are minus 105. To query on favorites, set the line to less than minus 105 and to query on underdogs, set the line to greater than zero.

Sample query: **line < -199**

margin – This is the margin by which a team won or lost. It is in units of runs. This is a very commonly used parameters and can be used, for example, to uncover how a team performs in the third game of a series when they lost the first two by a single run.

The Parameter Listing, continued

Sample query: **margin = 1**

M1 – M9 – This is the margin after any inning. For example, to find the results for games that are tied at the end of the eighth inning, use:

Sample query: **M8 = 0**

month – This is the month and they are numbered rather than named. This is to facilitate queries involving, say, after April, which would be greater than 4 because April is the fourth month.

Sample query: **month =4**

pitchers used – This is the number of pitchers used by the team. It can be useful to see how teams perform, when they are off a win in which they used at least five pitchers or when they used at least five pitchers for two straight games.

Sample query: **pitchers used > 5**

Shortcut: **PU**

playoffs – This will allow the search of only regular season results and only playoff results. To search only playoff results, set the **playoffs=1** and to search only regular season results, set **playoffs=0**. The KillerSports.com default is to search on both playoff and regular season results.

Sample query: **playoffs=0**

QS – This is the shortcut for a quality start. A quality start is one in which the starter lasts at least six innings and allows three or fewer earned runs.

Sample query: **s:QS**

R1 – R9 – This powerful parameter can be used to investigate how a team performs based on the number of runs they scored in a particular inning or range of innings. The shortcut makes this parameter very easy to use. The capital letter R represents the number of runs and the number immediately following represents the inning. For example, how a team performs after a loss in which they scored at least 3 runs in the first inning, use:

Sample query: **p:R1 = 3 and p:L**

rest – This is the number of days rest a team has between games. Usually it is one or zero, but rainouts can expand this number to two, three or even four.

Sample query: **rest > 0**

runs – This is the totals number of runs a team scored in a game. It can be used, for example, to see how a team performs after being shut out, after scoring at least six runs and losing, or after scoring three runs or fewer in three straight games.

Sample query: **p:runs=0**

S1 – S9 – This is the total number of runs the team scored after any number of innings. It can be used, for example, to see how a team performs after a win in which they were scoreless over the first five innings as follows:

Sample query: **p:S5=0 and p:W**

SERA – This the shortcut for the team’s starter’s ERA in the game. To get the starter’s season-to-date ERA, use STDSERA.

Sample query: **SERA < 3**

season – This is simply the season.

Sample query: **season >= 2005**

series game – This tremendously useful parameter is the number of the game in the series. This can be used, for example, to determine how a team performs in the second game of a home series when they lost the first as a favorite or in the third game of a three-game series when they lost the first two.

Sample query: **series game = 3**

Shortcut: **SG**

series games – This is the total number of the game in the series. For example, if the team is playing the first game of a three game series, the series games is 3 while the series game is 1. This can be used, for example, to determine how a team performs in the second game of a two-game home series when they won the first by at least five runs as an underdog.

Sample query: **series game = 4**

Shortcut: **SGS**

site – This commonly used parameter is simply the site of the game. In rare instances when the site is neutral, the home team is the team that bats second.

Sample query: **site = home**

Shortcut: **H**

site streak – This parameter refers to the streak of home games or road games played. If a team is playing their fifth straight home game, their site streak is plus 5. If they are playing in at least their third straight road game, their site streak is less than or equal to minus three.

Sample query: **site streak <= -3**

start time – This is the start time of the game. All times are Eastern and military time is used, with all four number in a single string. For example, 7:05 pm is 1905.

Sample query: **start time<1400**

starter – This is the starting pitcher. The pitcher’s first and last name must be given in single quotes. This allows a complete investigation of how a starting pitchers performs in various situations. For example, as a 150+ road dog, when their team lost his last two starts, when the team is on a three game losing streak or when he got fewer than three runs of support for two straight starts.

Sample query: **starter= Zack Grienke**

starter hits – This is the number of hits the starter allowed in the referenced game..

The Parameter Listing, continued

36Sample query: **starter hits <= 3**Shortcut: **SHA****starter hitters faced** – This is the number of hitters the starter faced in the referenced game..Sample query: **starter hitters faced >= 30**Shortcut: **SHF****starter home runs** – This is the number of home runs the starter allowed in the referenced game.Sample query: **starter home runs >= 3**Shortcut: **SHRA****starter innings pitched** – This is the number of innings pitched by the starter in the referenced game. This can be used to determine how a pitcher performs when he went eight-plus innings in his last start, when he is off a start in which he went less than four innings or when he went 7+ innings and his team lost his last start.Sample query: **starter innings pitched < 5**Shortcut: **SIP****starter pitches** – This is the number of pitches thrown by the team's starter in the referenced game.Sample query: **starter pitches > 100**Shortcut: **SPT****starter strike outs** – This is the number of batters the starter struck out in the referenced game.Sample query: **starter strike outs >9**Shortcut: **SSO****starter throws** – This is the handedness of the starting pitcher. It can be used, for example, to see how a team performs against a lefty when they faced righties for three straight games.Sample query: **starter throws = left**Shortcut: **STR (starter throws right)**Shortcut: **STL (starter throws left)****starter walks** – This the number of walks allowed by the starter in the referenced game.Sample query: **starter walks > 2**Shortcut: **SWA****starters whip** – This the starter's whip in the referenced game.Sample query: **s:SWHIP < 1**Shortcut: **SWHIP****STDSERA** – This the starter's season-to-date ERA.Sample query: **o:STDSERA < 3****STDSWHIP** – This the starter's season-to-date WHIP.

Sample query: **o:STDWHIP > 2**

streak – This is the winning or losing streak the team is on when entering the referenced game. Winning streaks are positive and losing streaks are negative. If a team lost their last three, their streak value is at least minus 3. If they lost exactly their last three, their streak value is exactly minus 3.

Sample query: **streak >= 5**

strike outs – This is the number of times a team struck out in a game.

Sample query: **strike outs >= 10**

Shortcut: **SO**

team – This name of the team. The database at KillerSports.com uses the nickname of the team. This parameters can be used to see how a team performs vs another or how a team performs after a series vs a particular opponent.

Sample query: **team = Blue Jays**

team left on base – This is the total number of runners stranded at the end of each inning. This parameters can be used to uncover how a team performs as a function of the number of runners than go from the basepath to the field without crossing the plate.

Sample query: **team left on base >12**

Shortcut: **TLOB**

temperature – This is the reported temperature at the start of the game. It can be used, for example, to see how teams perform in cold temperatures or how starters perform in hot temperatures.

Sample query: **temperature < 60**

total – This is the consensus Vegas OU line for the game. It can be used, for example, to see how a team performs when the OU line is high or how a starting pitcher performs on the road when the OU line is low.

Sample query: **total < 7.5**

walks – This is number of walks the team drew – not the number of walks their pitchers allowed. It can be used, for example, to see how teams perform in games in which they did not draw a walk, or after a game in which they drew at least five walks.

Sample query: **walks = 0**

WOW - Walk off win. This is when a team wins in their last at bat. It only applies to the home team and they must have won the game in the bottom of the ninth or in extra innings.

WP – This is the referenced team’s winning percentage for the season. It ranges from zero (a winless team) to 100 an undefeated team. A team that is “500” on the season has a winning percentage of 50.

Fifty SDQL Queries

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Below we present 50 SDQL queries. The queries start off uncomplicated and get more sophisticated. Your task is to interpret these queries in plain English. The answers are given on the preceding pages.

1. H and team = Dodgers
2. A and p:ALF and team = Cubs
3. p:margin = -1 and team = Mets
4. p:margin < 0 and p:biggest lead > 1 and team = Indians
5. p:walks >= 4 and team = Mariners
6. home runs > 3 and L and team = Angels
7. p:runs < 3 and pp:runs < 3 and ppp:runs < 3 and team = White Sox
8. division = o:division and team = Reds
9. streak >= 3 and team = Marlins
10. month = 4 and starter = 'Roy Halladay
11. errors > 3 and team = Brewers and W
12. team left on base > 10 and team = BlueJays
13. p:strike outs < p:walks and team = Pirates
14. pp:runs < p:runs and team = Cardinals
15. walks > runs and team = Royals
16. hits < runs and W and team = Yankees
17. strikeouts = 0 and team = Tigers
18. team = Rangers and po:runs >= 10 and ppo:runs >= 10
19. p:W and p:streak <= -3 and team = RedSox
20. p:pitchers used >= 5 and rest = 0 and team = Rays
21. p:starter innings pitched >= 8 and p:L and team = Padres
22. H and p:site streak <= -9 and team = Orioles
23. home runs + o:home runs >= 10
24. pitchers used = 1 and L and team = Mets
25. s:margin > 0 and ss:margin > 0 and team = Braves

26. team = Nationals and p:runs = 0 and series game = 1
27. team = Nationals and po:runs = 0 and series game = 1
28. team = Nationals and op:runs = 0 and series game = 1
29. team = Nationals and opo:runs = 0 and series game = 1
30. team = Nationals and o:runs = 0 and series game = 1
31. team = Astros and oS:runs = 0
32. team = Rockies and s:L and ss:L and p:W and pp:W
33. team = Diamondbacks and p:runs < 4 and p:W
34. team = Dodgers and po:BL = 0 and SG > 1
35. starter = 'Randy Wolf and s:BPRA > s:SRA and s:SIP>5
36. po:R9 <= 2 and p:margin = -1 and team = Royals
37. H and p:AL and pp:AL and ppp:AL and team = Indians
38. starter = 'Carlos Zambrano and s:QS and s:L
39. starter = Roy Oswalt and s:SWHIP< 1
40. team = Athletics and opo:runs > 7 and oppo:runs > 7
41. os:SIP < 3 and team = Cubs
42. S:W and SS:W and SSS:W and starter = 'Aaron Harang
43. s:W and ss:W and sss:W and H and starter = 'Joe Saunders
44. p:W and pp:W and ppp:W and starter = 'Brad Penny and H
45. S:SIP < 5 and starter = 'Aaron Harang
46. s:SWA > ss:SWA > sss:SWA and starter=Ben Sheets and A
47. runs>hits and team=Twins
48. S:L and SS:L and SSS:L and team=Athletics
49. po:runs<4 and ppo:runs<4 and streak<=-2 and team=Pirates
50. AD and WP<60 and p:W and p:SIP<3 and po:BL>0 and date>=20070917

Fifty SDQL Queries Translated

1. The Dodgers at home.
2. The Cubs on the road the game after a loss as a road favorite.
3. The Mets the game after a one-run loss.
4. The Indians the game after a loss in which they held a multiple-run lead.
5. The Mariners after a game in which they drew at least four walks.
6. The Angels when they hit at least three home runs and lose.
7. The White Sox when they scored fewer than three runs in each of their last three games.
8. The Reds vs a team in their division.
9. The Marlins when they have won at least their last three games.
10. Roy Halladay's starts in April.
11. The Brewers in wins in which they committed at least three errors.
12. The Blue Jays when they stranded more than ten runners.
13. The Pirates after a game in which they had more walks than strikeouts
14. The Cardinals when they scored more runs in their last game than the game before.
15. The Royals when they had more waks than runs.
16. The Yankees when they had more runs than hits and won the game.
17. The Tigers when they did not strike out the entire game.
18. The Rangers when they allowed at least ten runs in each of their last two games.
19. The Red Sox when they are off a win that broke at least a three-game losing streak.
20. The Rays when they used at least five pitchers yesterday.
21. The Padres when they are off a loss in which their starter lasted at least eight innings.
22. The Orioles in the first game back from at least a nine game road trip.
23. All games in which there were a total of at least ten home runs hit.
24. The Mets' games in which their starter pitched a complete game and lost.
25. The Braves when they lost their starter's last two starts.

26. The Nationals in the first game of a series when they are off a shutout loss.
27. The Nationals in the first game of a series when they are off a shutout win.
28. The Nationals in the first game of a series when their opponent is off a shutout loss.
29. The Nationals in the first game of a series when their opponent is off a shutout win.
30. The Nationals when they shut out their opponent in the first game of a series.
31. The Astros when facing a starter against whom they suffered a shutout loss the last time they faced him.
32. The Rockies when they lost their starter's last two starts but won their last two games.
33. The Diamondbacks when they are off a win in which they scored three runs or fewer.
34. The Dodgers when they are facing a team they just beat while never trailing. Put another way, the Dodgers vs a team that is seeking immediate revenge for a loss in which they never led.
35. Randy Wolf's starts when he last more than five innings in his last start and allowed fewer runs than the bullpen.
36. The Royals after a one run loss in which their opponent scored at least two runs in the ninth inning.
37. The Indians at home after three straight road losses.
38. Carlos Zambrano starts when he is off a quality start in which he team was defeated.
39. Roy Oswalt starts when he had a WHIP of less than one in his last start.
40. The Athletics vs a team that allowed more than seven runs in each of their last two games.
41. The Cubs vs a starter who lasted less than three innings in his last start.
42. Aaron Harang's starts vs a team against whom he produced wins for his team in three straight starts against them.
43. Joe Saunders' starts at home when his team won his last three starts.
44. Brad Penny's starts at home when his team is on a three game winning streak.
45. Aaron Harang's starts when he went fewer than five innings in his last start against this opponent.
46. Ben Sheets starts on the road when the number of walks he allowed increased in each of his last two starts.
47. Minnesota in games in which they had more runs than hits.
48. The Athletics when their starter's team lost the last three time he faced this opponent.
49. The Pirates when they are off two losses in which they allowed fewer than four runs in each.
50. Since September 17th, 2007, Away underdogs with a winning percentage of less than 60% when they are off a game in which their starter when three innings or less and they came back from a deficit to win.

Advanced Techniques

There are numerous advanced techniques that will allow averaging, summing and other data manipulation techniques available with the SDQL. For example, when a team is facing an opponent that has averaged at least 7 strike outs per game season-to-date. Or when a team has averaged fewer than 3 runs per game over their last five home games, or when a starter is facing a team that averages at least 4 walks per game, or when a team has 50 hits over their last four games, et cetera.

For more information on these powerful techniques, visit SDQL.com.

Sample Team Trends with SDQL

Below are some Sample Trends From MLB Champion Handicapper Dr. Ed Meyer of MTi Sports Forecasting. Professor Meyer has finished #1 of all the MLB handicappers in net profit for the 2008 and the 2009 season – the first two seasons that Dr Meyer has handicapped MLB. He credits his success to hard work and the database at KillerSports.com. He has over 2200 trends stored in his personal trend file and each day the computers at Killersports.com go through his trend set and output the ones that apply to the games being played that day,

Below, thanks to the professor, we present one sample trend from each MLB team. Along with the English text, there is the SDQL text that will generate the query output file for the situation. Check them out.

The Angels are 13-0 straight up (SU) since July 05, 2006 as a road dog after a win in which they allowed 1 or fewer walks and it is not the first game of a series.	team=Angels and AD and po:walks<=1 and p:W and SG>1 and 20060705<=date
The Astros are 8-0 SU since September 26th, 2007 as a road dog vs a team that has lost at least their last three games and it is not the first game of a series.	team=Astros and AD and o:streak<=-3 and SG>1 and 20070926<=date
Houston is 0-13 SU in franchise history in any Wandy Rodriquez start on the road when he allowed fewer than five hits in his last start.	starter='Wandy Rodriguez' and site=away and s:starter hits<5
The Blue Jays are 0-12 SU since July 20th, 2007 in the first game of a home series when they are off a win in which they had eight or fewer hits.	team=Blue Jays and H and tp:hits<=8 and p:W and SG=1 and 20070720<=date
The Braves were 0-8 SU in 2009 as a home favorite when they were off a loss as a favorite in which they allowed at least five walks.	team=Braves and HF and po:walks>=5 and p:LF and season>=2009
The Brewers are 16-0 SU since September 23rd, 2006 as a home favorite of more than 120 when they are off a win in which they had at least a dozen hits and it is not the first game of a series.	team=Brewers and H and line<-120 and 12<=p:hits and p:W and SG>1 and 20060923<=date
The Cardinals are a perfect 13-0 SU since July 18th, 2004 as a 140+ road favorite when seeking immediate revenge for a loss in which they never led.	team=Cardinals and A and line<=-140 and p:BL=0 and SG>1 and 20040718<=date
The Cubs are 0-7 since May 8, 2004 as a home 200+ favorite when their opponent is seeking immediate revenge for a shutout loss.	team=Cubs H and line<=-200 and po:runs=0 and SG>1 and 20040508<=date
The Diamondbacks are 0-18 since May 4, 2008 as a dog after a win in which they allowed 6 or fewer hits.	team=Diamondbacks and D and po:hits<=6 and p:W and 20080504<=date

APPENDIX 4

Sample Team Trends with SDQL, continued

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The Dodgers are 12-0 since August 2, 2008 as a home favorite after a one run loss.	team=Dodgers and HF and p:margin=-1 and 20080802<=date
The Giants are 0-20 since June 19th 2005 as an away dog when seeking immediate revenge for a four-plus run loss in which they did not allow 10+ runs.	team=Giants and AD and p:margin<=-4 and po:runs<10 and SG>1 and 20050619<=date
The Indians are 0-17 OU since September 13th, 2005 when seeking immediate revenge vs an American League opponent for a loss in which they were scoreless over the last six innings, as long as they weren't a dog of more than 110 in that loss.	team=Indians and CH and sum(tp:inning runs[-6:])=0 and p:L and p:line<115 and SG>1 and 20050913<=date
The Mariners are 0-17 since August 12, 2005 after an extra inning loss in which they had more than eight hits.	team=Mariners and p:XL and p:hits>8 and 20050812<=date
The Marlins are 10-0 since April 4, 2006 as a 170+ dog when seeking immediate revenge for a loss in which they had 6 or fewer hits.	team=Marlins and line>=170 and tp:hits<=6 and p:L and SG>1 and 20060404<=date
The Mets are 0-9 SU since June 12th, 2005, as a 150+ favorite when their opponent is seeking immediate revenge for an extra-inning loss, as long as the Mets weren't a 300+ favorite in that game.	team=Mets and H and line<=-150 and p:XW and SG>1 and 20050612<=date and p:line>-300
The Nats are 0-17 SU since August 10th 2008, as a 140+ dog vs a starter that is seeking same-season revenge for a team loss.	team=Nationals and line>=140 and oSo:W and oS:season=season and 20080810<=date
The Orioles are 0-9 SU since June 10th 2004, as a home favorite of more than 120 when playing the rubber game of a three-game series vs an American League opponent.	team=Orioles and HC and line<-120 and SG=SGS=3 and (0<tp:margin)+(0<tp:margin)=1 and 20040610<=date
The Padres are 8-0 SU since July 12th 2009 as a road dog when their opponent's starting pitcher is seeking same season revenge for a team loss, as long as they were not a 140+ favorite in that loss.	team=Padres and oSo:line<130 and AD and oSo:W and oS:season=season and 20090712<=date
The Phillies are 16-0 SU since September 5th, 2008 on the road when their line is within 20 cents of pickem and they are off a game in which they scored six runs and trailed at any point on the game.	team=Phillies and A and -120<=line<=120 and p:runs>=6 and and po:BL>0 and 20080905<=date
The Pirates are 0-18 SU since May 16th, 2008 on the road when they won the last two games their starter started.	team=Pirates and A and s:W and ss:W and 20080516<=date

The Rangers are 12-0 SU since June 7th, 2004 when they are off a loss in which their starter pitched at least eight innings.	team=Rangers and 8<=p:SIP and p:L and 20040607<=date
The Rays are 20-0 SU since July 31st, 2005 as a home favorite when they are off a one-run loss in which they led by at least three innings.	team=Rays and HF and IL>=3 and s:margin=-1 and 20050731<=date
The Red Sox are 21-0 SU since August 26th, 2005 in the first game of a home series when they are off a loss as a favorite in which they never led and trailed at the end of more than three innings.	team=Red Sox and H and SG=1 and p:BL=0 and p:FL and po:IL>3 and 20050826<=date
The Reds are 9-0 SU since August 27th, 2009 vs any team that has lost their last two games, as long as it is not the last game of the series.	team=Reds and o:streak<=-2 and SG!=SGS and 20090827<=date
The Rockies are 13-0 SU since 2004 at home when their line is within 20 cents of pick and their starter lasted less than four innings and gave up fewer than ten runs in his last start.	team=Rockies and H and -120<=line<=120 and s:SIP<4 and s:SRA<10
The Royals are 7-0 SU since June 25th 2007 as a dog of more than 160 in the first game of a series vs a team that is on at least a two-game winning streak.	team=Royals and line>160 and 2<=o:streak and SG=1 and 20070625<=date
The Tigers are 0-18 SU since May 25th, 2007 in the first game of a series when they are off a five-plus run win in which they never trailed.	team=Tigers and p:margin>=5 and SG=1 and po:BL=0 and 20070525<=date
The Twins are 0-22 SU since August 14th, 2004 as a road dog of more than 130 when they are off a loss in which they drew at most one walk.	team=Twins and A and line>130 and p:walks<=1 and p:L and 20040814<=date
The White Sox are 0-9 SU since 2004 as a home favorite when they are off two one-run losses and it is not the first game of a series.	team=White Sox and HF and p:margin=1 and pp:margin=1 and SG>1
The Yankees are 12-0 SU since April 30th, 2005 at home off a loss in which the game was tied after six innings and they went scoreless after the sixth.	team=Yankees and H and p:M6=0 and p:runs - p:S6=0 and 20050430<=date

