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0.1 Copyright Notice & Limited Use License				
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0.2 Contact Information				

If you are interested in similar databases for other sports, please vist the Open Source Sports website at http://OpenSourceSports.com

1.0 Release Contents

This release of the database can be downloaded in several formats. The contents of each version are listed below.

```
Comma Delimited Version:
      2016readme.txt
      AllStarFull.csv
      Appearances.csv
      AwardsManagers.csv
      AwardsPlayers.csv
      AwardsShareManagers.csv
      AwardsSharePlayers.csv
      Batting.csv
      BattingPost.csv
      CollegePlaying.csv
      Fielding.csv
      FieldingOF.csv
      FieldingPost.csv
          FieldingOFsplit
     HallOfFame.csv
          HomeGames.csv
      Managers.csv
     ManagersHalf.csv
     People.csv
          Parks.csv
     Pitching.csv
     PitchingPost.csv
     Salaries.csv
      Schools.csv
     SeriesPost.csv
      Teams.csv
     TeamsFranchises.csv
```

1.1 Introduction

TeamsHalf.csv

This database contains pitching, hitting, and fielding statistics for Major League Baseball from 1871 through 2016. It includes data from the two current leagues (American and National) the four other "major" leagues (American Association, Union Association, Players League, and Federal League), and the National Association of 1871-1875.

This database was created by Sean , who pioneered the effort to make baseball statistics freely available to the general public. What started as a one man effort in 1994 has grown tremendously, and now a team of researchers have collected their efforts to make this the largest and most accurate source for baseball statistics available anywhere. (See Acknowledgements below for a list of the key contributors to this project.)

None of what we have done would have been possible without the pioneering work of Hy Turkin, S.C. Thompson, David Neft, and Pete Palmer (among others) All baseball fans owe a debt of gratitude to the people who have worked so hard to build the tremendous set of data that we have today. Our thanks also to the many members of the Society for American Baseball Research who have helped us over the years. We strongly urge you to support and join their efforts. Please vist their website (www.sabr.org)

If you have any problems or find any errors, please let us know. Any feedback is appreciated

1.2 What's New in 2016

Player stats have been updated through 2016 season.

Three new tables have been introduced: FieldingOFsplit, Parks, and HomeGames

Other notable changes include:

- * Improvements to appearances table based on Retrosheet data
- * Created a new table FieldingOFsplit, and migrated the LF/CF/RF entries from Fielding to it.
- * Deleted all DH entries from Fielding.
- * Re-built all regular season batting/pitching/fielding from 2000 forward.
- * Filled in NULL values for 1973-1999 in batting for pitchers who did not have a PA due to the DH rule.
- * Added Parks and HomeGames to better track major league ballparks, including neutral sites

1.3 Acknowledgements

Much of the raw data contained in this database comes from the work of

Pete Palmer, the legendary statistician, who has had a hand in most of the baseball encylopedias published since 1974. He is largely responsible for bringing the batting, pitching, and fielding data out of the dark ages and into the computer era. Without him, none of this would be possible. For more on Pete's work, please read his own account at: http://sabr.org/cmsfiles/PalmerDatabaseHistory.pdf

Three people have been key contributors to the work that followed, first by taking the raw data and creating a relational database, and later by extending the database to make it more accesible to researchers.

Sean launched the Baseball Archive's website back before most people had heard of the world wide web. Frustrated by the lack of sports data available, he led the effort to build a baseball database that everyone could use. He created the first version of the database and began to make it available for free download from his website in 1995.

The work of Sean Forman to create and maintain an online encyclopedia at Baseball-Reference.com was a quantum leap for both fans and researchers. The website launched in 2000, provding a user-friendly interface to the Baseball Database. Forman and launched the Baseball Databank in 2001, a group of researchers whose goal was to update and maintain the database as an open source collection available to all.

Ted Turocy has done the lion's share of the work to updating the main data tables since 2012, automating the work of annual updates and linking historical data to play-by-play accounts compiled by Retrosheet.

A handful of researchers have made substantial contributions to maintain this database over years. Listed alphabetically, they are: Derek Adair, Mike Crain, Kevin Johnson, Rod Nelson, Tom Tango, and Paul Wendt. These folks did much of the heavy lifting, and are largely responsible for the improvements made since 2000.

Others who made important contributions include: Dvd Avins, Clifford Blau, Bill Burgess, Clem Comly, Jeff Burk, Randy Cox, Mitch Dickerman, Paul DuBois, Mike Emeigh, F.X. Flinn, Bill Hickman, Jerry Hoffman, Dan Holmes, Micke Hovmoller, Peter Kreutzer, Danile Levine, Bruce Macleod, Ken Matinale, Michael Mavrogiannis, Cliff Otto, Alberto Perdomo, Dave Quinn, John Rickert, Tom Ruane, Theron Skyles, Hans Van Slooten, Michael Westbay, and Rob Wood.

Many other people have made significant contributions to the database over the years. The contribution of Tom Ruane's effort to the overall quality of the underlying data has been tremendous. His work at retrosheet.org integrates the yearly data with the day-by-day data, creating a reference source of startling depth.

Sean Holtz helped with a major overhaul and redesign before the 2000 season. Keith Woolner was instrumental in helping turn a huge collection of stats into a relational database in the mid-1990s. Clifford Otto & Ted Nye also helped provide guidance to the early versions. Lee Sinnis, John Northey & Erik Greenwood helped supply key pieces of data. Many others have written in with corrections and suggestions that made each subsequent version even better than what preceded it.

The work of the SABR Baseball Records Committee, led by Lyle Spatz has been invaluable. So has the work of Bill Carle and the SABR Biographical Committee. David Vincent, keeper of the Home Run Log and other bits of hard to find info, has always been helpful. The recent addition of colleges to player bios is the result of much research by members of SABR's Collegiate Baseball committee.

Salary data was first supplied by Doug Pappas, who passed away during the summer of 2004. He was the leading authority on many subjects, most significantly the financial history of Major League Baseball. We are grateful that he allowed us to include some of the data he compiled. His work has been continued by the SABR Business of Baseball committee.

Thanks is also due to the staff at the National Baseball Library in Cooperstown who have been so helpful over the years, including Tim Wiles, Jim Gates, Bruce Markusen, and the rest of the staff.

A special debt of gratitude is owed to Dave Smith and the folks at Retrosheet. There is no other group working so hard to compile and share baseball data. Their website (www.retrosheet.org) will give you a taste of the wealth of information Dave and the gang have collected.

Thanks to all contributors great and small. What you have created is a wonderful thing.

1.4 Using this Database

This version of the database is available in Microsoft Access format, SQL files or in a generic, comma delimited format. Because this is a relational database, you will not be able to use the data in a flat-database application.

Please note that this is not a stand alone application. It requires a database application or some other application designed specifically to interact with the database.

If you are unable to import the data directly, you should download the database in the delimted text format. Then use the documentation in section 2.0 of this document to import the data into your database application.

1.5 Revision History

V	/ersion	Date	Comments	
	1.0	December 1992	Database ported from dBase	
	1.1	May 1993	Becomes fully relational	
	1.2	July 1993	Corrections made to full database	
	1.21	December 1993	1993 statistics added	
	1.3	July 1994	Pre-1900 data added	
	1.31	February 1995	1994 Statistics added	
	1.32	August 1995	Statistics added for other leagues	
	1.4	September 1995	Fielding Data added	
	1.41	November 1995	1995 statistics added	
	1.42	March 1996	HOF/All-Star tables added	
	1.5-MS	October 1996	1st public release - MS Access format	
	1.5-GV	October 1996	Released generic comma-delimted files	
	1.6-MS	December 1996	Updated with 1996 stats, some corrections	
	1.61-MS	December 1996	Corrected error in People table	
	1.62	February 1997	Corrected 1914-1915 batters data and updated	
	2.0	February 1998	Major Revisions-added teams & managers	
	2.1	October 1998	Interim release w/1998 stats	
	2.2	January 1999	New release w/post-season stats & awards added	
	3.0	November 1999	Major release - fixed errors and 1999 statistics	
added				
	4.0	May 2001	Major release - proofed & redesigned tables	
	4.5	March 2002	Updated with 2001 stats and added new biographical	
data				
	5.0	December 2002	Major revision - new tables and data	
	5.1	January 2004	Updated with 2003 data, and new pitching	
categories				
	5.2	November 2004	Updated with 2004 season statistics.	
	5.3	December 2005	Updated with 2005 season statistics.	
	5.4	December 2006	Updated with 2006 season statistics.	
	5.5	December 2007	Updated with 2007 season statistics.	
	5.6	December 2008	Updated with 2008 season statistics.	
	5.7	December 2009	Updated for 2009 and added several tables.	
	5.8	December 2010	Updated with 2010 season statistics.	
	5.9	December 2011	Updated for 2011 and removed obsolete tables.	
	2012	December 2012	Updated with 2012 season statistics	
	2013	December 2013	Updated with 2013 season statistics	
	2014	December 2014	Updated with 2014 season statistics	
	2015	December 2015	Updated with 2015 season statistics	
	2016	February 2017	Updated for 201g and added several tables	

2.0 Data Tables

The design follows these general principles. Each player is assigned a unique number (playerID). All of the information relating to that player is tagged with his playerID. The playerIDs are linked to names and birthdates in the People table.

The database is comprised of the following main tables:

PEOPLE - Player names, DOB, and biographical info Batting - batting statistics Pitching - pitching statistics Fielding - fielding statistics

It is supplemented by these tables:

AllStarFull - All-Star appearances HallofFame - Hall of Fame voting data Managers - managerial statistics Teams - yearly stats and standings BattingPost - post-season batting statistics PitchingPost - post-season pitching statistics TeamFranchises - franchise information FieldingOF - outfield position data FieldingPost- post-season fielding data FieldingOFsplit - LF/CF/RF splits ManagersHalf - split season data for managers TeamsHalf - split season data for teams Salaries - player salary data SeriesPost - post-season series information AwardsManagers - awards won by managers AwardsPlayers - awards won by players AwardsShareManagers - award voting for manager awards AwardsSharePlayers - award voting for player awards Appearances - details on the positions a player appeared at Schools - list of colleges that players attended CollegePlaying - list of players and the colleges they attended Parks - list of major league ballparls HomeGames - Number of homegames played by each team in each ballpark

2.1 People table

playerID A unique code asssigned to each player. The playerID links the data in this file with records in the other files.

birthYear Year player was born birthMonth Month player was born birthDay Day player was born

birthCountry Country where player was born birthState State where player was born birthCity City where player was born

deathYear Year player died deathMonth Month player died deathDay Day player died

deathCountry Country where player died deathState State where player died deathCity City where player died nameFirst Player's first name Player's last name

nameGiven Player's given name (typically first and middle)

weight Player's weight in pounds height Player's height in inches

bats Player's batting hand (left, right, or both)

throws Player's throwing hand (left or right)

debut Date that player made first major league appearance

finalGame Date that player made first major league appearance (blank if still

active)

retroID ID used by retrosheet

bbrefID ID used by Baseball Reference website

2.2 Batting Table

playerID Player ID code

yearID Year

stint player's stint (order of appearances within a season)

teamID Team lgID League G Games AB At Bats R Runs Н Hits 2B Doubles **Triples** 3B HR Homeruns

RBI Runs Batted In
SB Stolen Bases
CS Caught Stealing
BB Base on Balls
SO Strikeouts

IBB Intentional walks

HBP Hit by pitch
SH Sacrifice hits
SF Sacrifice flies

GIDP Grounded into double plays

2.3 Pitching table

playerID Player ID code

yearID Year

stint player's stint (order of appearances within a season)

teamID Team
lgID League
W Wins
L Losses
G Games

GS Games Started CG Complete Games

SHO Shutouts SV Saves

IPOuts Outs Pitched (innings pitched x 3)

H Hits

ER Earned Runs
HR Homeruns
BB Walks
SO Strikeouts

BAOpp Opponent's Batting Average

ERA Earned Run Average
IBB Intentional Walks
WP Wild Pitches

HBP Batters Hit By Pitch

BK Balks

BFP Batters faced by Pitcher

GF Games Finished R Runs Allowed

SH Sacrifices by opposing batters
SF Sacrifice flies by opposing batters

GIDP Grounded into double plays by opposing batter

2.4 Fielding Table

playerID Player ID code

yearID Year

stint player's stint (order of appearances within a season)

teamID Team
lgID League
Pos Position
G Games

GS Games Started

PO Putouts
A Assists
E Errors
DP Double Plays

PB Passed Balls (by catchers)
WP Wild Pitches (by catchers)

SB Opponent Stolen Bases (by catchers)
CS Opponents Caught Stealing (by catchers)

ZR Zone Rating

2.5 AllstarFull table

playerID Player ID code

YearID Year

gameNum Game number (zero if only one All-Star game played that season)

gameID Retrosheet ID for the game idea

teamID Team lgID League

GP 1 if Played in the game

2.6 HallOfFame table

playerID Player ID code yearID Year of ballot

votedBy Method by which player was voted upon

ballots Total ballots cast in that year

needed Number of votes needed for selection in that year

votes Total votes received

inducted Whether player was inducted by that vote or not (Y or N)

category Category in which candidate was honored

needed_note Explanation of qualifiers for special elections

2.7 Managers table

playerID Player ID Number

yearID Year teamID Team lgID League

inseason Managerial order. Zero if the individual managed the team

the entire year. Otherwise denotes where the manager appeared in the managerial order (1 for first manager, 2 for second, etc.)

G Games managed

W Wins L Losses

rank Team's final position in standings that year

Player Manager (denoted by 'Y') plyrMgr

2.8 Teams table

yearID Year lgID League teamID Team

franchID Franchise (links to TeamsFranchise table)

Team's division divID

Rank Position in final standings

G Games played

GHome Games played at home

W Wins Losses

DivWin Division Winner (Y or N) Wild Card Winner (Y or N) WCWin League Champion(Y or N) LgWin WSWin World Series Winner (Y or N)

Runs scored AB At bats

Hits by batters Н

2B Doubles 3B Triples

HR Homeruns by batters BB Walks by batters

S0 Strikeouts by batters

Stolen bases SB CS Caught stealing HBP Batters hit by pitch SF Sacrifice flies

RA Opponents runs scored Earned runs allowed ER ERA Earned run average Complete games CG

Shutouts SHO SV Saves

IPOuts Outs Pitched (innings pitched x 3)

HA Hits allowed Homeruns allowed HRA BBA Walks allowed

Strikeouts by pitchers SOA

Ε **Errors**

Double Plays DP

FP Fielding percentage Team's full name name

Name of team's home ballpark park

attendance Home attendance total

BPF Three-year park factor for batters
PPF Three-year park factor for pitchers

teamIDBR Team ID used by Baseball Reference website

teamIDlahman45 Team ID used in database version 4.5

teamIDretro Team ID used by Retrosheet

2.9 BattingPost table

yearID Year

round Level of playoffs playerID Player ID code

teamID Team lgID League G Games AΒ At Bats R Runs Н Hits 2B Doubles 3B Triples HR Homeruns

RBI Runs Batted In
SB Stolen Bases
CS Caught stealing
BB Base on Balls
SO Strikeouts

GIDP Grounded into double plays

2.10 PitchingPost table

playerID Player ID code

yearID Year

round Level of playoffs

teamID Team
lgID League
W Wins
L Losses
G Games

GS Games Started CG Complete Games

SHO Shutouts SV Saves

IPOuts Outs Pitched (innings pitched x 3)

H Hits

ER Earned Runs
HR Homeruns
BB Walks
SO Strikeouts

BAOpp Opponents' batting average

ERA Earned Run Average
IBB Intentional Walks
WP Wild Pitches

HBP Batters Hit By Pitch

BK Balks

BFP Batters faced by Pitcher

GF Games Finished R Runs Allowed

SH Sacrifice Hits allowed
SF Sacrifice Flies allowed
GIDP Grounded into Double Plays

2.11 TeamFranchises table

franchID Franchise ID franchName Franchise name

active Whetehr team is currently active (Y or N)

NAassoc ID of National Association team franchise played as

2.12 FieldingOF table

playerID Player ID code

yearID Year

stint player's stint (order of appearances within a season)

Glf Games played in left field Gcf Games played in center field Grf Games played in right field

2.13 ManagersHalf table

playerID Manager ID code

yearID Year teamID Team lgID League

inseason Managerial order. One if the individual managed the team

the entire year. Otherwise denotes where the manager appeared in the managerial order (1 for first manager, 2 for second, etc.)

half First or second half of season

G Games managed

W Wins L Losses

rank Team's position in standings for the half

2.14 TeamsHalf table

yearID Year lgID League teamID Team

half First or second half of season

divID Division

DivWin Won Division (Y or N)

rank Team's position in standings for the half

G Games played

W Wins L Losses

2.15 Salaries table

yearID Year teamID Team lgID League

playerID Player ID code

salary Salary

2.16 SeriesPost table

yearID Year

round Level of playoffs

teamIDwinner Team ID of the team that won the series lgIDwinner League ID of the team that won the series teamIDloser Team ID of the team that lost the series lgIDloser League ID of the team that lost the series

wins Wins by team that won the series losses Losses by team that won the series

ties Tie games

2.17 AwardsManagers table

playerID Manager ID code awardID Name of award won

yearID Year lgID League

tie Award was a tie (Y or N)

notes Notes about the award

2.18 AwardsPlayers table

playerID Player ID code awardID Name of award won

yearID Year lgID League

tie Award was a tie (Y or N) notes Notes about the award

2.19 AwardsShareManagers table

awardID name of award votes were received for

yearID Year lgID League

playerID Manager ID code

pointsWon Number of points received

pointsMax Maximum numner of points possible

votesFirst Number of first place votes

2.20 AwardsSharePlayers table

awardID name of award votes were received for

yearID Year lgID League

playerID Player ID code

pointsWon Number of points received

pointsMax Maximum numner of points possible

votesFirst Number of first place votes

2.21 FieldingPost table

playerID Player ID code

yearID Year teamID Team lgID League

round Level of playoffs

Pos Position G Games

GS Games Started

InnOuts Time played in the field expressed as outs

PO Putouts A Assists

```
readme2016.txt
Ε
               Errors
DΡ
               Double Plays
TP
               Triple Plays
               Passed Balls
PB
SB
               Stolen Bases allowed (by catcher)
CS
               Caught Stealing (by catcher)
2.22 Appearances table
yearID
               Year
teamID
               Team
lgID
               League
playerID
               Player ID code
G all
               Total games played
               Games started
GS
G_batting
               Games in which player batted
G defense
               Games in which player appeared on defense
G_p
               Games as pitcher
G_c
               Games as catcher
G_1b
               Games as firstbaseman
G 2b
               Games as secondbaseman
G_3b
               Games as thirdbaseman
               Games as shortstop
G ss
G lf
               Games as leftfielder
G_cf
               Games as centerfielder
G rf
               Games as right fielder
\mathsf{G}_{\mathsf{o}}\mathsf{f}
               Games as outfielder
G_dh
               Games as designated hitter
G_ph
               Games as pinch hitter
               Games as pinch runner
G_pr
2.23 Schools table
               school ID code
schoolID
               school name
schoolName
schoolCity
               city where school is located
               state where school's city is located
schoolState
schoolNick
               nickname for school's baseball team
2.24 CollegePlaying table
```

playerid Player ID code

school ID code schoolID

year year

2.25 FieldingOFsplit table playerID Player ID code

yearID Year

stint player's stint (order of appearances within a season)

teamID Team lgID League Position Pos G Games

GS Games Started

Time played in the field expressed as outs InnOuts

P0 **Putouts** Α Assists Ε Errors

DΡ Double Plays

2.26 Parks table

city city state state

country country

2.27 HomeGames table

yearid year leagueid league teamid team ID ballpark ID parkid

date of first game played span_first date of last game played span_last total number of games games

total number of dates played openings

total attendaance attendance