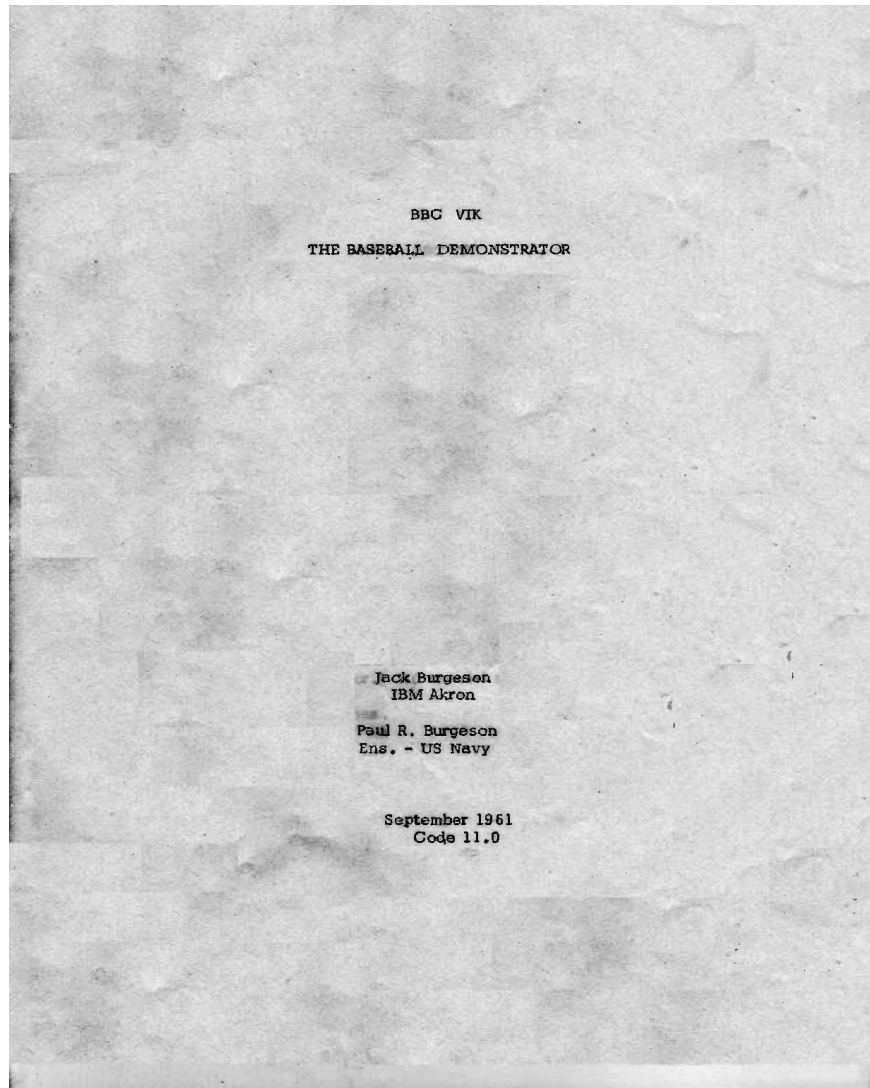BBC Documentation

This is a photocopy of the documentation of BBC, a baseball simulator that runs on the IBM 1620 computer. John W. Burgeson, an IBM Applied Science Rep in Akron, Ohio, developed it in 1960-61. The earliest successful run of this program was, according to notes, on 1/3/61. John submitted it to the IBM 1620 program library where various versions of it existed as late as 1967. This paper is dated September 1961. In the fall of 1961, Rege Cordic, then a KDKA Pittsburgh radio executive, produced a short running radio show based on the simulator's output.

John's brother, Paul R. Burgeson, served as a "debugger" on the project and offered many design ideas. He was the one who urged the development of the program and without his able assistance, it would not have ever been completed.

John W. Burgeson

BBC VIK

THE BASEBALL DEMONSTRATOR

Jack Burgeson
IBM Akron

Paul R. Burgeson
Ens. – US Navy

September 1961
Code 11.0

ABSTRACT PAGE

BBC V1K

THE BASEBALL DEMONSTRATOR

Jack Burgeson
IBM Akron

Paul R. Burgeson
Ens. U.S. Navy

Subject Class: 11.0

Direct Inquiries To: Jack Burgeson, IBM Akron

Purpose: To demonstrate the capabilities of the 1620 as a simulator by "playing" a game of baseball.

Storage: All of storage is used.

Equipment: 20K memory card 1620. (A tape version V1K is also available from the author.) No special features required.

Language: SPS with patches.

BBC V1K PROGRAM DESCRIPTION

This demonstration program will match operator vs machine in picking teams
from a master roster (in 1620 memory) of 90 all-star players. Operator picks
visiting team, the machine then selects (randomly) the home team. A com-
plete game is then "played." Running time is from 7 to 11 minutes per game.
The batting average and handedness of the batter is taken into account in
playing the game. All pitchers are considered equally effective.

Two separate random number generators built into the program effectively
prevent the same game - or even close variations - from recurring. These
generators are altered each time the program is loaded by the operator typing
the date and time of day into memory, the program selecting certain digits
from this type in.

Because of the high averages of the all-stars on the roster (each player is
represented by his best year average-wise), most games are high scoring.
However, shoutouts have occurred. In one game Bob Feller pitched a 3
hitter, winning 5-0. He then lost the next game 14-11.

No flow chart or listing is available for this program. An 80-80 listing of
the program deck gives a map of memory from 00160 to 19999.

The game has been tested over about 50 games so far, about 10 games since
the last patches were made. No apparent errors exist. This version V1K
adds base stealing, hit by pitcher, and a more realistic base running situa-
tion to the first early tape BBC version.

Input/Output/Operating

To run BBC V1K, push reset, put program deck in read hopper - push load.
During loading a message will be typed out indicating the version of BBC
being used.

After completion of loading the typewriter will carriage return several times
and type out "TODAY'S DATE IS" and wait for the operator to type in the
date or any other garbage he may want to type in up to 30 characters.
Release - start - the message "THE TIME IS" appears. Same procedure,
then the typewriter will prepare headings for the visitors roster. Tab stops
of approximately 40 and 70 are convenient here. (Margin at 20).

When the typewriter stops, the operator types in the last name of his lead-
off batter-release start. If he is one of the 90 - his record will appear.
Otherwise the operator will be asked to make another choice. After nine
players have been entered, the 1620 program completes the job, selecting
the home team and playing the game.

At the conclusion of the game, after the game totals are typed, sense switch 3 determines whether the same two teams will play another game (off) or if the operator will enter a new visiting team lineup (on).

Sense Switch 1 on will inhibit some type out of where runners are on the bases.

Sense Switch 2 on will force a hit by the current batter.

Sense Switch 4 on will force a non-hit by the current batter unless switch 2 is on.

All output is typewritten. There are no stops in the program.

<u>Roster of Players</u>

The roster of 90 players begins in location 13500 and extends to 17999. To print this roster, load the program, put the following routine in Insert and Start:

```
34 00000 00102
39 13501 00100
11 00018 00050
49 00000
```

The program begins in 02326 if you wish to enter new teams; 04490 to play a game with the current teams.

To pre-select <u>both</u> teams, stop the machine <u>after</u> the visiting team has been selected. Insert into locations 01937 - 01981 a series of 9 flagged 5 digit numbers, each number being the location of the player's record in memory that you wish to play on the home team. To determine this location - type the roster (as above). Player #1 is location 13500, #2 is 13550, and so on to 18950 for player #90. When the home team roster is entered in this manner, branch to 04490.

J. W. Burgeson
P. R. Burgeson

JWB:PRB:css

BBC   VERSION 1K   8/14/61 — *last version date*

TODAYS DATE IS 9/11/61 — *date this game was played*

THE TIME IS 1..00 OR THEREABOUTS

ENTER YOUR LINEUP BELOW

VISITORS

NAME		TEAM		AVG	BATS
RUTH	LF	1923	YANKS	.393	L
CROSSETI					

NON-VALID PLAYER. RETRY.

NAME		TEAM		AVG	BATS
CROSETTI	SS	1936	YANKS	.288	R
HEGAN	C	1947	CLEVE	.249	R
TROSKY	1B	1936	CLEVE	.343	L
GORDON	2B	1942	YANKS	.322	R
WAGNER	SS	1900	PITTSBU	.381	R
WILLIAMS	LF	1941	RED SOX	.406	L
SPEAKER	CF	1925	CLEVE	.389	L
GROVE	P	1931	ATHLETI	.250	L

HOME TEAM

NAME		TEAM		AVG	BATS
BROUTHERS	1B	1887	DETROIT	.419	L
HORNSBY	2B	1924	CARDS	.424	R
KAMM	3B	1928	W SOX	.308	R
TRAVIS	SS	1941	WASHING	.359	L
MEDWICK	LF	1937	CARDS	.374	R
AVERILL	CF	1936	CLEVE	.378	L
HAMILTON	RF	1894	PHILS	.398	R
HARTNETT	C	1937	CUBS	.354	R
RADBOURNE	P	1884	PROVIDE	.250	R

RUTH UP   STRUCK OUT SWINGING
CROSETTI UP   SINGLE TO RIGHT

```
HEGAN UP   STRUCK OUT CALLED
TROSKY UP RUNNER OUT STEALING SECOND

O. RUNS  1 HITS  0 ERRORS

BROUTHERS UP   STRUCK OUT SWINGING
HORNSBY UP   GROUNDER TO FIRST
KAMM UP   GROUNDER TO THIRD

O RUNS  0 HITS  0 ERRORS


END OF  1     SCORE 0 0


TROSKY UP   STRUCK OUT SWINGING
GORDON UP   LINE DRIVE TO SHORT
WAGNER UP   BASE    ON BALLS
WILLIAMS UP   TEXAS LEAGER SINGLE TO CENTER RUNNERS ON 1ST AND 3RD.
SPEAKER UP   STRUCK OUT SWINGING

O RUNS  1 HITS  0 ERRORS

TRAVIS UP   DOUBLE TO RIGHT
MEDWICK UP   STRUCK OUT SWINGING
AVERILL UP   LONG FLY TO L CENTR RUNNER ON 3RD
HAMILTON UP   GROUNDER TO PITCHER

O RUNS  1 HITS  0 ERRORS


END OF  2     SCORE 0 0


GROVE UP   STRUCK OUT SWINGING
RUTH UP   GROUNDER TO SECOND
CROSETTI UP   LINE DRIVE TO SHORT

O RUNS  0 HITS  0 ERRORS

HARTNETT UP   FLY BALL TO R CENTR
RADBOURNE UP   FLY BALL TO R CENTR
BROUTHERS UP   LINE DRIVE TO THIRD

O RUNS  0 HITS  0 ERRORS


END OF INNING 3     SCORE 0 0


HEGAN UP   GROUNDER TO SHORT
TROSKY UP   LONG FLY TO L CENTR
GORDON UP   GROUNDER TO SHORT

O RUNS  0 HITS  0 ERRORS

HORNSBY UP   GROUNDER TO SHORT
KAMM UP   STRUCK OUT SWINGING
TRAVIS UP   LONG FLY TO CENTER

O RUNS  0 HITS  0 ERRORS


END OF INNING 4     SCORE 0 0
```

```
WAGNER UP   LINE DRIVE TO SHORT
WILLIAMS UP   SINGLE TO RIGHT
SPEAKER UP   LINE DRIVE TO FIRST DOUBLE PLAY

0 RUNS   1 HITS   0 ERRORS

MEDWICK UP   SINGLE TO LEFT
AVERILL UP   FLY BALL TO R CENTR
HAMILTON UP   INF. HIT TO SHORT
HARTNETT UP   LONG FLY TO CENTER RUNNERS ON 1ST AND 3RD
RADBOURNE UP   LONG FLY TO R CENTR

0 RUNS   2 HITS   0 ERRORS


END OF INNING 5     SCORE 0 0


GROVE UP   DOUBLE TO R CENTR
RUTH UP   SINGLE OVER FIRST RUNNERS ON 1ST AND 3RD
CROSETTI UP   GROUNDER TO SHORT BATTER SAFE AT FIRST RUNNER OUT AT HOME RUNNER
S ON 1ST AND 2ND
HEGAN UP   GROUNDER TO THIRD DOUBLE PLAY

0 RUNS   2 HITS   0 ERRORS

BROUTHERS UP   LONG FLY TO LEFT
HORNSBY UP   GROUNDER TO PITCHER
KAMM UP   LONG FLY TO R CENTR

0 RUNS   0 HITS   0 ERRORS


END OF  6   SCORE 0 0


TROSKY UP   ERROR  AT SECOND
GORDON UP   GROUNDER TO THIRD RUNNER ON 2ND
WAGNER UP   FOUL OUT TO RIGHT
WILLIAMS UP   POP FLY TO FIRST

0 RUNS   0 HITS   1 ERRORS

TRAVIS UP   STRUCK OUT SWINGING
MEDWICK UP   STRUCK OUT SWINGING
AVERILL UP   SINGLE TO L CENTR
HAMILTON UP RUNNER STEALS SECOND
 FOUL OUT TO SHORT

0 RUNS   1 HITS  0 ERRORS


END OF  7     SCORE 0 0


SPEAKER UP   STRUCK OUT SWINGING
GROVE UP   STRUCK OUT SWINGING
RUTH UP   SINGLE OVER THIRD
CROSETTI UP   SINGLE TO R CENTR RUNNERS ON 1ST AND 2ND
HEGAN UP   GROUNDER TO SHORT

0 RUNS   2 HITS   0 ERRORS

HARTNETT UP   STRUCK OUT CALLED
RADBOURNE UP   STRUCK OUT SWINGING
BROUTHERS UP   SINGLE OVER 2ND
```

```
HORNSBY UP  SHORT FLY TO RIGHT

0 RUNS  1 HITS  0 ERRORS


END OF INNING 8     SCORE 0 0


TROSKY UP   HOMER TO RIGHT
GORDON UP   GROUNDER TO PITCHER
WAGNER UP   DOUBLE TO CENTER
WILLIAMS UP   DOUBLE TO R CENTR RUNNER SCORES
SPEAKER UP   SHORT FLY TO LEFT
GROVE UP   GROUNDER TO THIRD

2 RUNS  3 HITS  0 ERRORS

KAMM UP  LONG FLY TO R CENTR
TRAVIS UP   INF. HIT TO THIRD
MEDWICK UP RUNNER STEALS SECOND
 LINE DRIVE TO PITCHER DOUBLE PLAY

0 RUNS  1 HITS  0 ERRORS


END OF  9     SCORE 2 0




GAME COMPLETED. TOTALS

VISITORS      02  10  00
HOMETEAM      00  06  01
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