

BACH

COMPUTER GENERATED V MANUALLY SHUFFLED HANDS by Reg Hull

Current Trends

Around of 50% of clubs now use computer/machine dealt hands and or Wireless Recording and scoring system. e.g Bridgemate. They can be implemented independently or together.

All National and International competitions are administered using Computer dealt hands

The following are the seen as the main advantages of computer/machine dealt hands:-

1) Hands are "Better Shuffled"

Computer generated hands are more random generally resulting in more distributional hands.

To create a random deal manually, players must shuffle the deck at least seven times to guarantee that the cards are properly mixed. Inadequate shuffling often leads to "flatter" distributions.

The hands are not "fixed" in any way.

2) Board accuracy

If cards are put back incorrectly then reference can be made to a hard copy of the hands to reinstate

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3) Ability to review hands.

- Hands can be available on the night to take away
- Hands can be downloaded from the website
- Makeable and optimum contracts are shown
- Hand Statistics i.e. Average HCP, Singletons, Voids etc. are available for review
- The following is shown for each hand

✓ Board Number	✓ Dealer (shown in White)	✓ Makeable contracts
✓ Hands	✓ Vulnerability (shown in Red)	✓ Optimum Contract
✓ Points per hand		

♠ AJ109
♥ Q962
♦ 94
♣ KJ4

Dlr: North
Vul: None

Optimum
NS 4H; 420

♠ K83
♥ K7
♦ KQ1075
♣ Q98

♠ Q752
♥ J104
♦ J63
♣ 1076

♠ 64
♥ A853
♦ A82
♣ A532

11 13 4 12

N 10 7 10 8 8
S 10 7 10 8 8
E 2 6 3 4 4
W 2 6 3 4 4

♠ AQ5
♥ Q
♦ KQJ9542
♣ J7

Dlr: East
Vul: N/S

Optimum
EW 4HX,EW 4SX;
100

♠ 109743
♥ A942
♦ --
♣ K1053

♠ J62
♥ KJ1075
♦ A10
♣ Q42

♠ K8
♥ 863
♦ 8763
♣ A986

15 7 11 7

N 5 10 4 4 5
S 5 10 4 4 5
E 7 3 9 9 6
W 7 3 9 9 6

♠ Q94
♥ 83
♦ AK10
♣ AK1076

Dlr: South
Vul: E/W

Optimum
NS 1N; 120

♠ AK1083
♥ KQ92
♦ 62
♣ Q2

♠ 75
♥ 107
♦ Q8743
♣ 9543

♠ J62
♥ AJ654
♦ J95
♣ J8

16 14 2 8

N 8 7 7 7 8
S 8 7 7 7 8
E 5 6 5 5 5
W 5 6 5 5 5

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- **Optimum Contract** = Best score taking into account sacrifices that neither side could improve upon by further bidding
- ❖ On Board 1. The best NS can make is 10 Heart tricks for 420. There is nothing sensible that EW can make that will cost them less than 420.
 - ❖ On Board 3. The best NS can make is 1NT for 120. There is nothing sensible that EW can make that will cost them less than 120.
 - ❖ On Board 2.
 - NS can make 10 Diamond tricks for 130 and EW 9 Spade or Hearts for 140.
 - It is likely that EW have bid 4 Diamonds over NS 3 Spades or Hearts
 - It is also likely that EW will bid 4H or 4S as a sacrifice as it will be cheaper than giving NS 130.
 - Going 1 off. Undoubled that will be 50 to NS
 - Going 1 off. Doubled that will be 100 to NS
 - If NS go to 5 Diamonds then
 - Going 1 off. Undoubled that will be 100 to EW
 - Going 1 off. Doubled that will be 200 to EW
 - So if both parties compete the best score that each can achieve is:-
 - NS +100. This is not as good as 4 Diamonds +130 but is the best available once EW go to 4 Major.
 - EW -100. This is not as good as +140 BUT NS will go to 4D giving EW -130. So -100 is the best available score.

Board 2 - Optimum Contract summary of scores		
Contract	NS	EW
NS - 4 Diamonds	130	-130
EW - 3 Major	-140	140
EW - 4 Major Undoubled	50	-50
EW - 4 Major Doubled	100	-100
NS - 5 Diamonds Undoubled	-100	100
NS - 5 Diamonds Doubled	-200	200

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Hand Statistics Summary. Also available is a summary of all the hands

	Voids	Singletons	2	3	4	5	6	7	Balanced	HCP
North	2	8	20	20	20	11	6	1	11	10.18
East	1	9	21	19	17	16	5		5	10.27
South		7	19	28	20	8	5	1	13	9.05
West	1	9	15	24	22	15	2		9	10.50

The explanation is as follows.

- Assuming 22 Boards played everyone will receive 286 cards in the evening. i.e. 22 Boards * 13 cards.
- East will have the following during the evening
- $1 * \text{void} + 9 * 1 + 21 * 2 + 19 * 3 + 17 * 4 + 16 * 5 + 5 * 6 = 286$.
- i.e. 1 hand with a void, 9 instances of a singleton, 21 instances of a doubleton etc etc.
- Using Board 1 above as an example East has 1 of the 5 balanced hands he/she received during the evening. Also 3 of the 19 instances of a tripleton and 1 of the instances of a quad. The point count was 4 so there will be other hands where more than 10.27 points were received.

Below are links to the main 2 machines that clubs use for computer hands. They show how they are generated and placed in boards

<https://www.youtube.com/watch?v=6AoVPecJ2Rw>

<https://www.youtube.com/embed/Z9TVWadjxdo?autoplay=1>