

A white hat is an ethical computer hacker, or a computer security expert, who specializes in penetration testing and other testing methodologies that ensure the security of an organization's information systems. Ethical hacking is a term meant to imply a broader category than just penetration testing.

A novel trick-taking board game. Hack the system and steal the data before anyone knows you're there!

Information wants to be free, but you charge by the hour...

White Hat is a hacker-themed game, combining trick-taking with a game board. It works well as a family game and equally well for hardcore gamers. White Hat is easy to learn, has a wide variety of working tactics and luck is less important than is common in trick-taking games.

In the **OPTIONAL RULES** (see page 11) you can find additional rules. The Game Designers recommend using all optional rules once all players are accustomed to the basic rules.

#### **GAME CONTENTS**

**90 cards:** 2 alternative White Hat ( ) cards. The White Hat card is the same on both sides. 78 rank cards numbered from 1-13 (the number is the rank; there are six cards of each rank), 5 jokers ( ), 4 reference cards, 1 Tracer card.

**1 board**, combining the game board and score board. Board is dual-sided, one for standard game and one for more experienced players.

**6 double-sided game board tiles:** These are used to vary the game board. Like the game board itself, they consist of different types of spaces which depict the systems to be hacked.

4 markers: 2 double-sided +1/-1 markers for the Exploit, 2 tracer player markers.

**19 pawns:** 3 pawns each in six colors (one for the score board, two for the game board), 1 Tracer pawn for the optional TRACER rules (page 11).

#### **SETUP**

Each player puts one pawn on 'Internet Cafe' and 'Public Server' on the left side of the game board and one on the number zero on the score board.

Choose one of the White Hat cards to use in this game (only

the art differs). If it's your first game, start the first round. If you are not playing the game for the first time, randomly draw up to five tiles and place them on top of the game board, on the marked locations. There is no need to fill all locations, as the game board comes fully playable. The tiles add variety and sometimes are more complex.

Start the first round.

#### **ROUND START**

Shuffle the deck.

Draw the topmost card. Count that many players in clockwise direction, starting from the player next to the dealer. Give the White Hat to the player where the count ends. For example, in a 6 player game drawing a 1, 7, or 13 would give the White Hat to the player next to the dealer in clockwise direction, while a 6 or 12 would give the White Hat to the dealer. Finally, discard the card used for distributing the White Hat.

Then each player is dealt a total of 10 cards (including the White Hat).

The player to the **right** of the player who was dealt the White Hat card shall lead the first trick.



#### TRICKS

The active player, called the "lead", may play one or more cards. When playing multiple cards, all must be the same rank. The other players, in clockwise order, then must also play cards to the trick. They can play one card or the same number of cards as the lead, their choice. After each player has played, the trick ends, and the player who played the same number of cards as the lead with the highest rank wins the round. If there is a tie for the winner, the tied player who played last will win the trick. The winner leads the next trick.

Cards played to the trick are discarded (except in White Hat tricks, see below).

The winner of a trick is the most competent hacker and must either:

- a) advance one of their own (not blocked) pawns on the board, or
- b) advance **one** (not blocked) opponent pawn which is on a space with negative value.

In case neither a) nor b) are possible, the winner must draw a single card from the deck.

# **JOKERS**

A joker may substitute for any other card; for example two sevens and a joker can play as three sevens. If played as a single card or together only with other jokers, it has a value of fourteen (14).



### **White Hat**

The White Hat card behaves like a joker. In addition, when it is played, the trick

will be a "White Hat round" in which the lowest combination of the played type wins the trick. Tie breaking happens as always, so in the case of a tie, the last cards of the same value played are considered stronger (lower). The player who played the lowest value can then choose to take

**all cards** played and put them into their hand, including the White Hat, or just take the **White Hat and as many non-Joker cards as the lead played** into their hand while the other played cards are discarded as usual. This player then leads the next trick, just like after winning any other trick.

When the White Hat is played, it **must** be played in a combination matching the lead. If the White Hat is the last card a player has in a round where the lead plays multiple cards, the player has to pass. (This is the only time passing is allowed.)

Note: There are no suits, the colors of the cards just correspond to their points.

**Example 1:** The lead starts the trick by playing the White Hat. He cannot win that trick, no matter what, as the White Hat is 14 (always, when played as single, as any joker). The lowest single card wins the trick and collects.



**Example 2:** The lead starts the trick with White Hat+7. It is likely that everyone plays only 1 card and the person who played White Hat ends up collecting either all cards played, or any two cards and the White Hat (for example, 12 and 9 if the player wants high cards, or 4 and 7 if the player wants few points, or any other combination), but he wins the trick and gets to advance on the board.



**Example 3:** The lead starts the trick with 7+7. The next player plays a single 6. The third player plays 8+White Hat. Fourth plays 9+9. The first person (7+7) collects cards, as specified by White Hat rules above. This is a double round, where only pairs can win. The White Hat changes the game only so that smallest pair wins. The single 6 played in a pair round cannot win.



**Example 4:** The lead plays 8+8+8, second 5, third 7. The last player has White Hat and one other card (13). He can not play the White Hat, because he can not match the suit of three cards, and can not pass, because the White Hat is not his last card. Thus, he has to play the 13.



**Example 5:** The lead plays 13, second White Hat (14), third 13, fourth Joker (14). The third player collects a single 13 and White Hat, or all cards. The player cannot take the White Hat and a Joker.



**Example 6:** The lead plays 2+2, second 2+2, third 8, fourth 2+White Hat. The fourth player collects, as he was the last player to play a pair of twos on a White Hat round. This would be likely a brilliant move, as he'd then have 5 cards of rank 2, which is zero points, but a very strong suit to play.



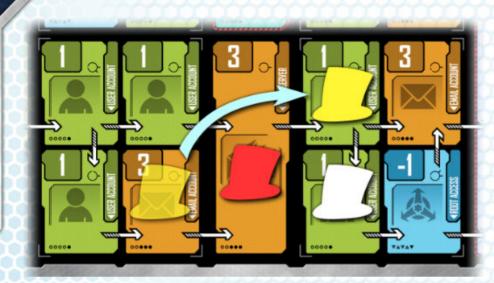
# **HACKING ACTIONS (MOVEMENT)**

There can be only one pawn on each space (except for the 'Internet Cafe' and 'Public Server'). Players move pawns by one space according to the possibilities allowed by the arrows.

If an adjacent space is occupied by a pawn, it can be jumped over. This can happen several times in a row, so basically you can move the pawn to the next empty space on any path chosen by you. You can only follow complete arrows (both shaft and arrow head need to be there).

Pawns can only be removed from the board when the Tracer eliminates them(see the optional TRACER rule on page 11).

When a player has to move but cannot (all pawns are blocked, e.g., on Honeypot or Denial-of-Service AND none of the opponent pawns are in negative spaces), the player **must** draw a card instead.



#### **TYPES OF SPACES**



**Internet Cafe, Public Server** – All pawns start the game from here.



**Router, Database Server, Cell Phone** – A standard component.



Critical Asset – The goal: A pawn entering it ends the game.



**Denial-of-Service** – An attack. The player owning the pawn entering this space moves any one pawn back to 'Internet Cafe' or 'Public Server' (their choice), except the pawn that triggered the Denial-of-Service. Note that no player can have

two pawns on the same 'Internet Cafe' or 'Public Server' at any given time. The pawn who enters the Denial-of-Service will be blocked on this space for the duration of the game. Denial-of-Service is the *only* way to move blocked pawns again (on an 'FBI Server', Honeypot, or different Denial-of-Service space).



**FBI Server** – This is part of the optional TRACER rule (page 11). If the rule is not in effect, treat this like a standard Honeypot.



**Honeypot** – The pawn which enters the honeypot is blocked and cannot move for the duration of the game (the following pawns will just jump over it).



**Exploit** – Whenever a player enters the Exploit, he or she can modify the value of any other space by +/-1. Put an Exploit Marker with the corresponding side face up on this space



Randomizer – Whenever a pawn enters the randomizer, the player owning the pawn may draw a random tile. If the player does that, they must put it on the game board. Pawns that were on the board there before get put on the corresponding host on the tile. Trigger special hosts with pawns on them on the new tile in clockwise order, starting from the top left host.



**Backflip** - When a pawn enters the Backflip, the player owning it moves any other pawn backwards one step (moving in the opposite direction of the connecting arrows), jumping over an occupied space if necessary.

#### **END OF THE ROUND**

The round ends if either of the following conditions is true at the end of a trick:

- 1. one or more players are out of cards
- 2. a pawn is on top of the Critical Asset space (game ends)
- 3. no pawn can move (game ends)

When the round ends, a scoring happens (see below). Then all players discard

their remaining cards and, if the game didn't end yet, a new round is started.

#### SCORING

Round points are scored by adding the points from the cards left in a player's hand and the points for the player's pawns on the board. Each card has a number of points and each pawn accumulates points based on its current space (evidence left when hacking into the system). The minimum score is zero; negative scores count as zero.

Round points are accumulated into a running game score on the score meter.

#### **END OF THE GAME**

When the round ends due to a pawn reaching the Critical Asset or all pawns are blocked, the game ends after a final scoring. The player with the lowest game score wins. In case of ties, the player with the lowest round score in the last round wins.

#### 2-PLAYER VARIANT

There is a Robot which plays the third player. This Robot is played by the player who is not leading. (Exception: In the first round, by the player without the White Hat.) The Robot is always the second player (i.e., the turn order is lead, Robot, other player). If the Robot wins a trick, it advances its pawns just like any other player would and stays in the control of the same player.

- All robot cards are constantly visible (open).
- It is possible that the Robot wins. You should be ashamed of yourself if that happens.
- The Robot can end the game.
- The Robot can also do any other special action.
- We do not suggest using the Tracer with the Robot, as it leads to too uneven situations.

#### **OPTIONAL RULE: TRACER**

The Tracer is triggered by a pawn entering 'FBI Server'. The pawn is blocked on the FBI Server and can not leave. The Tracer pawn starts on the special Tracer

tile; after a few moves it will appear on the 'Public Server'. It must be moved whenever a player who has a pawn in FBI Server wins a trick (in addition to the normal pawn move).

After the Tracer pawn leaves the Tracer tile, turn it over – the backside shows the jail. After leaving the Tracer tile, the Tracer pawn can move to any adjacent space (even occupied ones), ignoring any arrows (but not onto the Internet Cafe, on the dark grey spaces, or off the board, of course).

The tracer pawn also ignores any blocking effects, i.e. it can move out of honeypots. It may however not move nearer to the starting locations; at most, it can move sideways.

Should the movement end on a slot where there is a player pawn, that pawn is eliminated and put in the 'Tracer Jail' (value 5). There is no limit on the number of pawns in the jail.

The tracer fills a space just like a player pawn. A player can jump over it, even though it is risky. If the tracer moves to the "Critical Asset", the game ends.

Moving a Tracer does not count as moving your own or an opponent's pawn; if a player is unable to move their own or opponents' pawns, the player must draw a card (see the TRICKS secton on page 4, item 3).

#### **REDUCING LUCK**

If you'd like to reduce the amount of luck in the game, you can opt to reduce cards when there are fewer players than the maximum (6). For each player less than six, remove one card of each rank and one joker, down to a minimum of four of each rank and three jokers. You will always need one White Hat, anyhow.

You can also deal fewer cards after any player's pawn entered a honeypot. When dealing after such an event, one should deal half the normal hand size (e.g., 5 cards only) to every player. This is intended to decrease the luck aspect in the critical end-game.

#### **VARIANT: CELEBRITY STATUS**

At the beginning of the game, each player secretly draws one status card. The cards have values from 10 to 50 on them and represent the level of famousness the hacker is most comfortable with.

At the end of the game, the player who is closest in points to the value on their status card wins the game. Ties go to players who are below their status value.

**Example:** The players drew status cards with values 15, 35, and 40, and end the game with 12, 37, and 38 points respectively. Both the second and third players' difference to their status aim is two, but the third player wins because they stayed below their target.

# **Solo Rules**

# Set up

All components for the optional Tracer rules are required for playing Solo mode of White hat.

Set up the Board using the side without the "denial of service" space (Long green space).

Put a black, white, orange, and blue Hat in the internet cafe space and a black, white, orange, and blue Hat in the public server space. Shuffle the deck and create a Row of five face-up cards next to it. If a joker card is revealed this way, shuffle it back into the deck and draw the next card for the row. Repeat this process for each Joker revealed until the Row has five none-joker cards.

Put the White Hat card next to the row. The solo player draws up to a hand of 10 cards. Place the Tracer card next to the board and place two traker tokens on the brown space of the tracer card.

#### Goal

The goal of the solo mode is to reach the **highest score possible**. The solo

player will be controlling all of the hats and at the end of the game, the color with the lowest score will determine the players final score.

### Play

The solo player will always lead and will be playing against the cards in the five-card row (plus the White Hat card if it is still there).

The player starts by playing one or more cards. If the player plays more than one, the cards played have to be of the same rank (number).

After that, the row will try to beat the player by playing as few cards and as low numbers as possible. This includes playing the same number as the player to cause a tie as the last card to be played wins ties.

If the row is unable to beat the solo player's lead, it will play a single card with the lowest value available.

The White Hat card will work as a Joker and the row will only play it together with another card in the row and if it is the only way to beat the player's lead. If the White Hat card is used, the solo player puts it into their hand. The solo player may play the card alone or in combination with other cards and must choose it's value upon playing.

If the solo player wins the trick they have to move one hat of any color they choose. If they won playing the White Hat, they put the White Hat back next to the row.

If the row wins, the player has to move one of the hats of the card color that was just used to win the trick.

Blue cards = Blue Hat

Yellow cards = Black Hat

Green cards = White Hat

Brown cards = Orange Hat

If both hats of the winning color are unable to be moved, ignore the movement. If the player wins the trick, they cannot choose to move a hat

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which is unable to move.

After resolving the trick, refill the row so that it contains five cards again before the next trick.

#### The Tracer

The tracer markers will move in two ways.

- 1. After setup, If a Joker card is ever revealed to the row, the player takes that card into their hand and moves both tracer markers one step downwards on the Tracer card.
- 2. The tracer markers will also be moved at the end of every round after scoring (see below).

Once the tracer markers have reached the bottom space on the tracer card (Named "Move to Public Server"), place one tracer marker in the internet cafe space and one in the public server space. From now on whenever the tracer markers are supposed to be moved, move both markers forward towards the closest Hat. If a tracer marker ever occupies the same space as a Hat, remove that Hat from play. Hats removed from play won't contribute to scoring.

The FBI server space is always treated like a standard Honey-Pot in the solo game.

#### **End of the Round**

Once the player runs out of cards in their hand the round ends and all four colors are scored according to the spots their two Hats are on. No cards are scored. Round points are accumulated into a running game score on the score meter around the board.

After that, the tracer marker is moved one step. Discard all cards in the row and add five new cards to the row. If the player has the White Hat in hand, they put it back next to the row. Then the player draws up to 10 cards and the next round begins.

#### **Game End**

The game ends once a hat has reached the "Critical Assets" space or the card deck runs out and there are no more cards left in the row. If there is only the White Hat card left in the row, the game also ends since the White Hat will never be played on it's own.

The solo player should note their score and try to beat it next time they play.

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