Dealing

The first round is dealt automatically after you confirm that you will start the first round.

At the end of each round, you will be asked if you want to proceed with the next round. If you select "Yes", Rummy 500 will shuffle and redeal the cards.

At any time, you may select "Start New Game" from the Game menu. In this case, the current game is abandoned, and the cards are reshuffled and redealt.

If <u>AutoMouse</u> is enabled, the mouse pointer will be moved automatically to the <u>deck</u> after the cards have been dealt.

Discarding From Your Hand

To <u>discard</u> a card from your hand, position the mouse pointer over the card and click the RIGHT mouse button. The card is then removed from your hand added to the <u>discard</u> <u>heap</u>.

If the <u>AutoMouse</u> option is in effect, the mouse pointer will move automatically to the <u>deck</u>.

Note that you cannot <u>discard</u> while cards are highlighted (i.e., selected for melding) in your hand or in the <u>discard heap</u>. You must deselect any highlighted cards before discarding.

Overview

Rummy 500 is a variation of the popular card game known as "Gin Rummy". We have never seen it documented, but someone showed it to us once, and we've enjoyed it immensely ever since.

Seven cards are dealt to you and seven to your opponent (the computer). The remaining cards in the <u>deck</u> are placed face down by the <u>table</u>, and the top card is turned face up on the <u>table</u>. This card forms the beginning of the the <u>discard heap</u>.

The game progresses with each player starting their turn by taking either the top card of the deck, or one or more cards from the discard heap.

You may elect to take cards from the <u>discard heap</u> only if you can <u>meld</u> the ones you select immediately with each other, with other cards from your hand or with existing melds on the <u>table</u>. All discarded cards, except those discarded earlier than the one(s) you select, are added to your hand. If you are able to lay down a <u>meld</u> of three or more cards, you play these to the <u>table</u>.

Whether you started your turn by taking a card from the <u>deck</u>, or by selecting and melding discards, you continue your turn by playing melds to the <u>table</u> as many times as you wish-providing that you have the cards to <u>meld</u>. You conclude your turn by discarding one of the cards in your hand.

A round ends when: (i) a player has discarded their last card or (ii) if there are no cards in the <u>deck</u> and the player who's turn it is elects not to take from the <u>discard heap</u>. Any cards remaining in your hand then score against you.

Successive rounds are dealt and played until one of the players achieves the goal of 500 points.

Getting Started

When you start Rummy 500, you will be informed that you lead the first hand. Click on the OK button to proceed. If you need to change any of the menu options, do this as soon as the round is dealt.

The first round of the first game starts with your turn, which you make by either taking a new card from the <u>deck</u>, or by selecting and melding one or more cards from the <u>discard heap</u>. The lead alternates on each successive round. The initial lead also alternates from game to game.

If you elect to take a new card, you click on the top of the <u>deck</u>. (This will usually be the case, unless you can immediately <u>meld</u> the discarded card with cards from your hand.) The top card will then be turned face up for you to see, and, after a fraction of a second, is automatically added to your hand.

Alternatively, if the <u>AutoMouse</u> option is enabled, the card will not be displayed on the <u>deck</u>, but will be moved directly to your hand. The mouse pointer also moves to your hand and indicates which card was newly taken.

If you are able to, and wish to, you may meld some of your cards at this time.

You end your turn by discarding a card from your hand by clicking on it with the RIGHT mouse button. If <u>AutoMouse</u> is enabled, the mouse pointer will automatically move back to the deck.

Your opponent (the computer) will then play its turn, and so on.

At any time you can get assistance on what to do next by clicking on the "Assist!" menu option. An information box will appear describing your options at that point of play. The Assist! information will disappear automatically when you click anywhere except the title bar of the information box. You may move the Assist! box by dragging its title bar.

When you are learning the game, you might set the opponent skill to "expert" and <u>discard</u> each of your cards immediately from the <u>deck</u> to see how melds and discards are played by the opponent. Subsequently, you might set the opponent skill to "carefree" (in which case the opponent will always <u>discard</u>) to play out your hand completely. You might also care to check the "show opponent's cards" menu option while you are learning the game. Once you have experimented with these methods, you should be ready to play in earnest!

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"Meld"

A run of at least three consecutive cards of the same suit, or three of four cards of the same value. Aces can be treated as high or low.

Examples:

Ace-2-3-4-5 of Spades 8 of Spades, 8 of Hearts, 8 of Diamonds, 8 of Clubs Queen-King-Ace of Diamonds

"Discard"

To play a card from your hand to the discard stack displayed to the right of the undealt <u>deck</u> of cards.

Playing The Game

After the cards for a round have been dealt, the sequence of your turn (or your opponent's) is:

- 1. Take one card from the <u>deck</u>, or one or more cards from the <u>discard heap</u>
- 2. <u>Meld</u> cards from your hand to the <u>table</u>, as and if possible
- 3. <u>Discard</u> one of the cards from those in your hand.

The round ends when one of the players discards the last card from their hand.

Dealing

Taking the top card of the deck

Taking from the discard heap

Melding cards to the table

Discarding from your hand

Taking The Top Card Of The Deck

Position the mouse pointer over the face down card on top of the <u>deck</u>. (In <u>AutoMouse</u> mode, the mouse will have been automatically positioned over the <u>deck</u> after you discarded the previous card.)

Click either the left or right mouse button on the card.

The card will then be removed from the <u>deck</u> and added to your hand, which will immediately be sorted.

If <u>AutoMouse</u> mode is operative, the mouse pointer will also move to your hand and point to the card taken.

If <u>AutoMouse</u> mode is not operative, the card will be displayed on the <u>deck</u> for a fraction of a second so that you can see what it is before it is moved to your hand.

Taking From The Discard Heap

Example

If you wish to take cards from the <u>discard heap</u>, you do this instead of taking a new card from the <u>deck</u>.

You may take any number of consecutively discarded cards, up to and including the last one discarded, and add them to your hand provided that you <u>meld</u> the earliest discarded (that is, the leftmost) of these cards immediately.

In order to execute the <u>meld</u> immediately upon taking the discards, Rummy 500 requires you to specify the cards that are to be melded as part of taking the cards from the <u>discard</u> heap.

Position the mouse pointer over the card in the <u>discard heap</u> to be taken and melded.

Click the LEFT mouse button. The discarded card will be highlighted.

If required, similarly identify (by highlighting) additional cards from your hand and/or the <u>discard heap</u> which are to be part of the current melding action.

The identified cards are played to the <u>table</u> in the normal manner. (See "Melding Cards" topic).

As the identified cards are played to the <u>table</u>, any and all other discards to the right of the discarded card(s) highlighted will be transferred to your hand.

Note that you can select a single <u>discard</u> and play it to an existing <u>meld</u>. All cards to the right of the <u>discard</u> selected will be added to your hand as usual.

You continue your turn by melding other groups of cards from your hand. Your turn is concluded when you <u>discard</u> a card from your hand.

Melding Cards To The Table

Melding Options

You may either create a new <u>meld</u> of at least three cards, or you may add one or more cards to an existing <u>meld</u> displayed on the <u>table</u>. You may add to any displayed <u>meld</u>, whether it originated from one of your turns or one of the opponent's. Similarly, your opponent may add cards to melds you initiate.

At the beginning of your turn, as an alternative to drawing a new card from the <u>deck</u>, you may add any number of the discarded cards into your hand - provided that you can <u>meld</u> the earliest discarded (i.e., leftmost) of these immediately.

Therefore, "Rummy 500" permits you to identify one or more cards from the <u>discard</u> <u>heap</u>, together with cards in your hand as needed, in order to define a <u>meld</u>. This action must take place as an alternative to taking a new card from the <u>deck</u>, and must be the first action in your turn.

After melding the identified cards to the <u>table</u>, the remaining cards (if any) from the <u>discard heap</u> will be added to your hand for you to continue your turn.

Creating A New Meld

First you must identify which cards from your hand (and/or from the <u>discard heap</u>) are to form the new <u>meld</u>. You do this by identifying each of those that you wish to select. You must identify at least three cards.

To identify a card: Position the mouse pointer over the card and click the LEFT mouse button. The card will now be highlighted.

To un-highlight a card: Position the mouse pointer over the highlighted card and click the LEFT mouse button. The card is no longer identified as a card to be melded.

When you have identified (i.e., highlighted) three or more cards, you may <u>meld</u> them to the <u>table</u>. You do this by positioning the mouse pointer over the "Click here for new <u>meld</u>" box and clicking the LEFT mouse button.

If the <u>meld</u> is valid, the cards will then be moved from your hand (and/or the <u>discard</u> heap) to the table.

Alternatively, if the combination of highlighted cards does not represent a valid <u>meld</u>, you will receive an error message, and the cards will remain in place.

Adding To An Existing Meld

First you must identify the card, or cards, which are to be added to the existing <u>meld</u>. You do this by highlighting cards as described above.

To add the highlighted card(s) to a <u>meld</u> on the <u>table</u>, position the mouse pointer over any card in the existing <u>meld</u> and click the LEFT mouse button.

If the card(s) highlighted can be melded with those on the <u>table</u>, the card(s) will then be added to the meld on the table.

Alternatively, if the card(s) highlighted cannot be melded with those on the <u>table</u>, you will receive an error message, and the card(s) will remain in place.

"Discard Heap"
The line of cards displayed face up to the right of the undealt <u>deck</u> across the top of the <u>table</u>.

"Deck"

The group of undealt and yet unturned cards displayed on the left side of the screen. A counter below the deck indicates how many cards remain.

"Table"

The center area of the screen between the player's hand and the opponent's hand. This is where the <u>discard heap</u> and melded card groups are displayed.

Scoring

Points are earned for each card melded to the table. The points distribution is:

5 Points : an ACE when melded as a "one" at the <u>low end</u> of a run

5 Points: a TWO through NINE

10 Points: a TEN, JACK, QUEEN or KING

15 Points: an ACE when melded with other aces, or at the high end of a run

At the end of a round, when either the player or opponent has discarded the last card in their hand, or the <u>deck</u> is exhausted, any points remaining in the other player's hand are deducted from their score. Aces are always valued at 15 points for this purpose. A player will realize a negative score if the points in their hand exceed the points played to the <u>table</u>.

Successive rounds are played until one of the players wins the game with 500 points.

"**High End Run**"
A run sequence of: Queen, King, Ace of the same suit.

"Low End Run"

A run sequence of: Ace, Two, Three of the same suit.

Menus

The following drop down menus are available:

<u>Game</u>

Options Skill

Scoreboard

Assist!

Help

Menu - Help

How to Play

Displays this help information

About

Displays information about the version number and author, and the registration confirmation.

Register

Displays an information window showing you how to register Rummy 500 and permits you to enter or re-enter your registration number.

While Rummy 500 is unregistered, the ten-second shareware notice will appear before each round. Registering Rummy 500 both makes your copy legal and removes this notice.

Should the Rummy 500 options data on your hard disk ever become corrupted or is missing. Rummy 500 will return to the unregistered status. In this case, you will need to re-enter your registration details.

Menu - Game

Start New Game

Start a new game. Abandons the current game. Resets all counters and scores.

This action restarts only the current game. Thus, if you are currently on game 3, the play will restart at round 1 of game 3.

Quit

Terminates the game and exits from Rummy 500

Menu - Options

The options menu comprises selections that are mostly either checked or unchecked. When the menu drops down, a checked item will have a check mark by it. To select an option, click on it so that the check mark is showing. To deselect an option, click on it so that the check mark is not showing.

AutoMouse
Card Design
Colors
VGAResolution/SVGA Resolution

No Lights
No Messages
Show Opponent
Sort Ace Low

Save Options

Menu - Assist!

Whenever this menu entry is selected, the "Assist!" window will appear. The "Assist!" window is context sensitive and will describe your options at the current state of play.

When you have read the assistance, just continue playing. The window will disappear as soon as you click the mouse anywhere on the screen, except in the "Assist!" window's title bar. You may move the "Assist!" window by dragging its title bar.

Menu - Skill

You set the opponent skill level by selecting one of the following menu options. The skill level currently selected is indicated with a check mark. "Average" is the default.

Carefree

The opponent always picks up a new card from the <u>deck</u>, and immediately discards at random. The opponent never plays a <u>meld</u>, and never scores any points. This setting is useful when you are learning the game and wish to play out your own hand completely.

Novice

The opponent will consider whether to pick up the last <u>discard</u>, or take a new card from the deck. The opponent will play melds, and discards at random.

Average

The opponent will consider whether to pick any of the last third of the <u>discard heap</u>, or take a new card. The opponent will play melds, and discards intelligently - by avoiding discarding members of pairs and two card runs, and considering your previous <u>discard</u> in this decision.

Expert

The opponent plays similarly to the "average" opponent, except that all of the cards in the <u>discard heap</u> will be considered, and the <u>discard</u> decision considers the previous two cards discarded. When in "expert" mode, the opponent will make two passes of its <u>meld</u> analysis of each combination - the first considering runs before same-kind melds, and the second vice-versa, to determine the better potential.

Additionally, the expert opponent will take account of the number of cards in your hand (the computer does not cheat and look at the values) when deciding how many discards it might safely take.

Expert mode is the most time consuming of the skill levels, and may be frustrating on a slow processor. However, it makes for the most challenging game and is very hard to beat. You should consider winning one game out of four to be a good performance on your part..

Technical Considerations

Rummy 500 contains a bitmap of all the card pictures and makes extensive use of the Windows API Bitblt function. Because of this, Rummy 500 is fast, but consumes approximately 600K of RAM and 10% of the GDI resource stack.

Alternative methods of managing the user interface proved to be more processor intensive and less conducive to fluid play. The trade-off was made for performance at the cost of resource consumption.

Although Rummy 500 does not use a dll for card drawing (for performance reasons), Stephen Murphy's excellent freeware "qcard.dll" was used to create the bitmap which Rummy 500 uses. The card back designs included in qcard.dll were created by Daniel Di Bacco. Acknowledgements are extended to each of them.

Rummy 500 was developed and tested on a 20MHz 386SX system with 5MB of RAM. Performance and fluidity of play is very satisfactory on this configuration. Screen repaints, which Rummy 500 manages itself, may be somewhat jerky on less powerful systems.

When in expert mode, the opponent will often "think" for up to thirty seconds on an Intel 386SX class processor. "Thinking" is almost instantaneous on an Intel Pentium processor.

Menu - Scoreboard

The scoreboard option appears on the menu when you start the second game. Selecting it will display the number of games won by you and your opponent so far during the current session of Rummy 500.

The Layout



The layout of the display is as follows:

The <u>deck</u> is shown face down to the left of the <u>table</u>, with the <u>discard heap</u> arranged face up to the right of it.

The opponent's cards are displayed face down above the <u>table</u>, and the player's cards are displayed face up below the <u>table</u>. In the above picture, a <u>discard</u> and two of the player's cards are highlighted in preparation for playing a new <u>meld</u> to the <u>table</u>.

Melds are displayed on the <u>table</u>, below the <u>discard heap</u>. When cards are selected (highlighted) in preparation to <u>meld</u>, a "click here for new <u>meld</u>" box appears to the right of the existing melds. This box will appear to the left of the <u>table</u> if there is no room left next to the melds on the table.

Waiting status messages, such as "Opponent Is Thinking, are displayed at the top left of the display. above the <u>traffic light</u>. (Note that the picture above is for illustration only - the status message would not appear during the player's turn.)

The game number and round number are displayed in the upper right, above the points score of cards melded by the opponent.

At the bottom left are displayed the number of cards in the player's hand, and the points value of those cards. At the bottom right, the points score of cards melded by the player and the net points (melded less in-hand) are displayed.

After the first round of a game, the running totals of points scored in previous rounds are displayed to the right of the <u>table</u>. (These are not shown in the above picture.)

Strategies

Melding

The advantage of melding is that you get cards out of your hand to count for you, which will count against you if the opponent empties its hand first.

The disadvantage of melding is that you provide the means for the opponent to empty its hand faster, as and when it can play to your melds.

The opponent always melds when it is able to. At expert and average skill levels it takes cards from the <u>discard heap</u> with consideration to how many points it will have melded and in its hand after melding the ones selected, and how many cards remain in your hand. Thus the opponent is more likely to pick up discards when you have more cards in your hand.

Discarding

Select which card to <u>discard</u> based upon which is the least useful in comparison to others in your hand, and which is probably less useful to your opponent.

Remember, if the opponent has only one or two cards left, that aces will count fifteen points against you if the opponent melds its remaining cards on its next turn. Tens, Jacks, Queens and Kings remaining in your hand will score ten points against you.

Selecting Discards

Select discards from the <u>discard heap</u> rather than taking a new card if the result will leave you with more net points (those you have melded less those left in your hand).

If the opponent has more than a few (say, five) cards in its hand, you might choose to end up with a worse net situation from taking the discards if there are a number of melds on the <u>table</u> to play to in subsequent turns.

Note that if the opponent only has one or two cards, there probably won't be many subsequent turns, and the excess cards in your hand will score against you.

The opponent , in average and expert skill modes, employs the same logic described above.

As a general rule, it is better to take discards than to not take them. You cannot score more than 90 points (four aces and three others at ten points) in a round if you only take from the deck.

"AutoMouse"

A capability which can be enabled, and disabled, from the "options" menu.

When enabled, the mouse pointer will automatically move as follows: (i) to the <u>deck</u> after each new deal of the cards; (ii) from the <u>deck</u> to your hand when you take a new card (pointing at the newly added card); and(iii) from your hand to the <u>deck</u> when you <u>discard</u> a card from your hand.

"Traffic Light"

The traffic light indicates the current state of play as follows:

Red when the opponent is taking its turn,

Yellow when it is your turn to take a card, and

Green during your turn.

It may be hidden by selecting the corresponding option from the menu.

AutoMouse

When checked, the mouse pointer automatically moves to your hand when you take a new card from the <u>deck</u>, and automatically moves back to the <u>deck</u> when you <u>discard</u>. It also moves to the <u>deck</u> after each new deal.

This facility reduces mouse movement and associated carpal tunnel strain for avid players of Rummy 500.

When <u>AutoMouse</u> is in effect, cards are not displayed briefly when taken from the <u>deck</u>, but the mouse pointer will be pointing at the position of the newly taken card in your hand after the move..

Card DesignThere are six alternative card back designs available. To change the design, select this menu option and click on the required card back from those displayed.

VGA Resolution/SVGA Resolution

This option does not appear in the menu if your monitor is set to VGA resolution (i.e., 600x480).

At higher screen resolutions, Rummy 500 will default to SVGA (800x600) resolution unless you have saved options with VGA selected. The SVGA default takes advantage of having more room to layout the cards. At the higher monitor resolutions, you have the option to switch between VGA resolution and SVGA resolution.

Resolution switching is permitted after you have taken a new card from the <u>deck</u> and before you have melded or discarded. Otherwise, this menu option will be dimmed.

When necessary, Rummy 500 automatically compresses groups of cards to keep them within the field of play. This will occur much more frequently at VGA resolution.

 $No\ Lights$ When checked, suppresses the display of the $\underline{\text{traffic light}}$ symbol.

No Messages

When checked, message boxes indicating errors regarding play (such as taking a new card before discarding, or attempting to <u>meld</u> an invalid combination) will be suppressed. The associated "beep" will still be heard.

Show Opponent

When checked, shows the opponent's cards face up. This facility was required when Rummy 500 was being developed and tested. It remains part of the finished application so that you can determine for yourself whether there is any truth in the assertion that most people will occasionally cheat when nobody is watching them.

Sort Ace Low

When checked, sets the sort criterion such that aces will be sorted low in the player's hand, before twos.

When unchecked, aces are sorted high, after kings.

This option is disabled when the player highlighted cards in hand .

Save Options

When selected, the current settings in the option menu, together with the current skill level, are saved to hard disk as your custom defaults. When you next start Rummy 500, these settings will be restored automatically.

Colors

The colors sub-menu allows you to change the colors used by Rummy 500 as follows:

Main - The outer frame of the display.

Default is brown.

<u>Table</u> - The center <u>table</u> area. Default is green.

Label Text - The labels (e.g., "Cards In Hand").

Default is yellow.

Counter Text - The numeric counters under the labels.

Default is black.

Counter Background - The background of the above.

Default is grey.

New <u>Meld</u> Text - The box that shows you where to <u>meld</u>.

Default is black.

New <u>Meld</u> Background - The background of the above.

Default is light blue.

Status Messages - The messages shown in the upper right.

Default is red.

Reset Defaults - Resets all colors to the Rummy 500 default values.

Using The Mouse

All mouse operations in Rummy 500 are performed by clicking. Rummy 500 does not support dragging.

Operations take effect when the mouse button is released, and are ignored if the mouse is released in a different area from where it was depressed.

If you have depressed a mouse button in an area of the screen and wish to abandon the action, move (drag) the mouse away from that area and release the button. The different areas of the screen are:

The card <u>deck</u>
The <u>discard heap</u>
The opponent's cards
The player's cards
The cards melded to the table

The "Click Here For New Meld" box

For example, if you have depressed the mouse button on the <u>deck</u> and wish not to take a new card after all, move the mouse off the deck before releasing the button.

All operations are effected when the mouse button is released.

Either the left or right mouse button may be used for all operations except:

The right mouse button must be used to <u>discard</u> from your hand The left mouse button must be used to select (highlight) cards

The <u>AutoMouse</u> feature may be enabled to move the mouse automatically between the deck and the player area.

Example Of Taking Discards

Before



The player has highlighted two cards in the <u>discard deck</u> and one card in the player's own hand. These three cards have been selected to form a <u>meld</u> of three aces.

The player then clicks on the "Click Here For New Meld" box to play the meld.

After



After clicking on the "Click Here For New <u>Meld</u>" box, the three aces have been melded to the <u>table</u>.

The cards that were in the <u>discard heap</u> to the right of the ace of diamonds have been added to the player's hand.

Note that the cards that remain in the <u>discard heap</u> are those that were discarded earlier than the leftmost cardselected.