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Quick Start

For beginners

1. Create a bowler.
   Click the **Add Bowler...** option under the **Bowlers** menu.
   Type your name in the **Bowler Name** edit box.
   Choose the **Beginner** skill level.
   Change the **Bowler Animation**, and **Colors** to your preference.
2. Start a game.
   Click the **New...** option under the **Game** menu.
   Your name should be in the first box under **Player Names Team 1**.
   Select **Practice First**
   Click **OK**
3. Set your bowlers standing position.
   Click and hold your mouse on your bowler, and slide him or her left and right *or* use the
   keyboard   and   arrows to move the bowler in the **Bowling Alley** window.
4. Set your aiming location.
   Click in the **Aim** window to move the arrow to where your ball will be aimed.
   *(Hint: Consider the viewing perspective when aiming. The marks on the boards are
   located about 1/3 of the way down the alley.)*
   You can also use the   and   arrows in this window to change the aiming position.
5. Bowl your first ball.
   Click and hold your mouse on the **THROW** button in the Bowling Alley window.
   You will see a green bar start to move. This is the amount of power behind your ball.
   You should release the button before this bar gets into the red zone. If it ends up in the
   red, your ball will not go exactly where you aimed it. You can also use the ENTER key to
   throw the ball instead of using the mouse by holding the key down and releasing it
   when ready to throw the ball.
6. Start a *real* game.
   Click the **Practice** option off under the **Game** menu to allow your score to start being
   added to the score card.

Intermediate and advanced play

1. Select a difficulty level.
   Click the **Edit Bowler...** under the **Bowlers** menu.
   Pick you player and click **OK**.
   Choose the **Intermediate** skill level.
   Start a game the same as above.
2. Spin the ball
   You will now have *two* bars:
   The green bar (power) is the same as the beginner player's green bar.
   The new blue bar controls the spin on the ball. The farther the bar goes around, the
   more spin is on the ball. To set the spin, click the **THROW** button again, or click the
   ENTER key.   Again, entering the red zone will add error to your aim.

Menus At A Glance

Game

New	Start a new game. Make sure you have already added your bowlers.
Open	Open a previously saved game.
Save	Save the game using the file name displayed on the title bar.
Save As	Save the game with a new name or for the first time.
Delete Files	Delete saved games, league teams, or league files.
Print Scorecards	Print the current game scorecards.
Practice	Start/Stop throwing practice balls and start keeping score.
Practice Spare	Setup the pins you want to attempt to knock down.
Last Spare Again	Retry the last spare attempt.
Exit	Quit **PBA Bowling**.

League

Open League	Open a previously saved league file.
Create Team	Group players into a league team file.
Play Game	Start playing a game scheduled in the league file.
Show Stats	
Team Stats	Show the standings of each team in the league.
Player Stats	Show the player standing in each league team.
Manager	
Create League	Setup a league using the saved league team files.
Update League	Import played league games and modify player handicaps.

Bowlers

Add Bowler	Add a bowler for individual, team, or league play.
Edit Bowler	Edit a bowler's characteristics.
Delete Bowler	Remove a bowler's settings.

Options

Set Options	Modify the alley conditions.
Sound	Toggle sound on and off.

Window

Bowling Alley	The main bowling alley view.
Aim View	The view where you aim the ball.
Closeup View	A closeup view of the pins.
Scorecard Team 1	Team one's score.
Scorecard Team 2	Team two's score.
Save Window Positions	Save all of the window positions and sizes for next time.

Help

Index	View a list of help topics
Quick Start	How to start playing the game.
About	PBA Bowling version and sound driver used.
Credits	Who did what to create **PBA Bowling**

Menus In Depth

Game
New...
   This menu selection sets up a new game. First, select the **Type of Game** you wish to play and the **Number of Players**. Game types are **Individual (1 game)**, **Individual (3 game average)**, and **Team (3 game average)**. For Individual games, the number of players is how many players are competing against one another. For team play, the number of players is how many players per team. The **Practice First** option allows you to throw some practice balls to get used to the lane conditions.

Open...   Ctrl-O
   The **Open** menu selection is used to retrieve a saved game. Double-click on the saved game you wish to continue, or click once and then click **OK**. **PBA Bowling** save game files have a default .PBA extension. To see other files, change the **List Files of Type** entry. A game can be saved any time before a ball is thrown. Once a game is saved, you can exit the program and return to it at any time.

Save...   Ctrl-S
   This option assumes you have previously saved this game and it already has a file name. **PBA Bowling** games have a default .PBA extension, although you can change that to whatever you want. When **Save** is selected, the hard disk light will flash for a moment, overwriting the previous saved game, and then you will be returned to your game. If the current game has not been saved before, and it does not have a previous file name, the **Save** option is not available. You must choose **Save As ...** instead.

Save As...   Ctrl-A
   A game can be Saved at any time before a ball is thrown. **PBA Bowling** games have a default .PBA extension, although you can change that to whatever you want with the **Save File as Type** entry. Once a game has been saved with the **Save As** option, the **Save** option will become available. You can quickly save a game in progress by pressing Ctrl-S or selecting **Save** from the **Game** menu.

Delete Files...
   To delete a saved game, choose this option from the Game menu. The default files listed are <SavedGame>.PBA, <LeagueTeam>.PBT, and <SavedLeague>.PBL. You can change the list of files you are viewing by changing the List Files of Type entry. You can select multiple games to delete by using the SHIFT key. You can also select games in a non-continuous block by holding down the CTRL key.

Print Scorecards...   Ctrl-P
   The scorecard can be printed at any time. It indicates the skill level of each player (**Beginner, Intermediate, Professional**) as well as the scores and the name of the winner.

Practice
   This option toggles the practice mode. When practice is off, any ball thrown will count on the scorecard. Once the game has been started and a score is on the scorecard, you cannot practice again for that game.

Practice Spare
   The option allows you to choose which pins you want to attempt to knock down. You must be in practice mode for this option to be available.

Last Spare Again

Try to pickup the Practice Spare pins again. This is the quickest way to try a spare over and over again.

Exit
This option quits the game. If the current game has not been saved, a dialog box appears offering you the chance to do so.

League
Open League...
This option is used to load a previously saved league file. The default extension for a PBA league is .PBL, which can be changed when the league is saved.

After you select the filename to load, you will be given the opportunity to identify yourself as the manager of the league. If you are not the manager just click the **OK** button. If you are the manager and want to have the ability to update the standings, type your password and then click **OK**.

Create Team...
This allows you to create a team of players to be incorporated into a league.

Play Game...
Select league teams to complete the current league round. You can choose two teams that are not scheduled to play each other. When the league manager imports the completed games, your team will be matched with the team you were scheduled to play.

Show Stats
Team Stats...
Team stats show how each team is progressing in the league.

Player Stats...
This shows how each player is doing on a team.

Manager
Create League...
This dialog is used to create a league. When teams are added to the league, the league type should be set along with the number of rounds and a league manager password. When you select OK, you will be prompted for a filename to save the league.

Update League...
This dialog allows the league manager to import games played by the league teams. It also shows how many games are completed and how many games were scheduled. The manager can also change the lane conditions and the player handicaps for each round.

All of your changes (game imports, forced scores, edited handicaps, etc.) will be saved in the current league file when you select the **OK** button from the Update League dialog box. If you do not wish to make these changes, the **Cancel** button reloads the current league file and clear all of the changes you made.

Bowlers
Add Bowler...
Players are stored for use in future games and league teams. Each bowler has a name (up to 20 characters), a figure (four male and four female), a shirt color, a pants color, and a ball color. This allows for over 4000 unique visual images for your bowlers. In addition, the

weight of the ball and skill of the bowler are recorded. Bowlers with the Pro skill setting are the most difficult to play.

Edit Bowler...
The box allows you to select a bowler. In this dialog box, you can modify any of the settings created with the **Add Bowler** feature.

Delete Bowler...
Select the bowler(s) to be deleted and click **OK**. They are now removed from the list of available bowlers.

Options
Set Options...
This dialog box allows you to toggle the sound and adjust the lane conditions and visuals.

Sound   F2
This allows the player to turn the sound on and off during the game.

Window
Bowling Lane   Shift-B
Clicking on this window or pressing Ctrl-B switches control over to the Bowling Lane window. There are two principle actions that you can perform here. You can slide your bowler to the left or right, lining him or her up for the shot, or you can click on the ball to send it down the lane.

The bowling ball icon has two horn shaped curves on it. The outer curve measures how hard the ball was thrown, the inner curve measures how much spin was put on it. The inner curve is disabled for Beginner players.

To use the ball icon, click on the ball and hold the left mouse button down. Releasing the button sets how hard the ball is thrown. *The longer the green bar, the harder is it thrown*. If any red appears, that means that the ball was thrown too hard. The more red, the more likely the ball will not go where you aimed it.

After releasing the mouse button, the inner curve is activated. This blue bar indicates how much spin is being placed on the ball. Clicking the left mouse button sets the amount of spin. If any red is showing in the bar, you released the ball too soon or too late. Your ball will most likely not go where you aimed it.

Keyboard Controls:
When the Bowling Lane window is activated, you can use the left and right arrows to slide the bowler left and right. You can use the ENTER key as if it were the mouse button to throw the ball.

Aim View   Shift-A
This view allows you to aim the ball. You do not actually aim the bowling ball at the pins. Instead, you aim at the small arrows embedded in the bowling lane floor about a third of the way down the lane. The angle of the ball is calculated by combining this with the position of   the bowler.

Keyboard Controls:
When the Aim View window is active, you can use the left and right arrows keys to move the aiming arrow left and right.

Closeup View   Shift-C
   The Close-up View of the pins shows where the ball hits the pins and how the pins fall. This view also shows you which pins are still standing after the first ball. There are no controls in this view, it is just for observation. If the game runs too slowly on your machine, this is a window you might want to consider closing.

Scorecard (Team 1)   Shift-S
   In individual play, there is only one scorecard window and the menu option reads simply "scorecard." In team play, there are two scorecards and this option reads "Scorecard for Team 1." In either case, the current player is highlighted. There are no controls in this view, it is just for observation. Minimizing this window will not speed up game play at all.

   If you are playing a three game series, the scores of games one and two will be displayed in the players name box when the games are completed.

Scorecard Team 2   Shift-2
   This window is identical to the scorecard window, but it only appears if the game is set for team play. The current player is highlighted. Minimizing this window will not speed up game play at all.

Save Window Positions
   Select this option if you resize or reposition any windows and would like to have them saved in that position the next time you run the game. This will add lines to your WIN.INI file explaining where each window should be placed.

Help
Index...   F1
   This brings up the Windows help system. You will be given a choice of topics with help information, the equivalent of this manual on-line.

Game Play...
   This is the same as the quick start in this manual.

About...
   This popup shows you the current version number of the program executable. It also tells you what WAV driver you are using or what errors were encountered with your WAV device.

Credits...
   This dialog box shows a list of people who worked on the game.

New Game

Player Names Team 1

   Each team can have up to four players. If you have selected one of the Individual game types, each of these players is competing against each other. Under **Team** play, they play together against Team 2. The players are added by using the **Add Bowler** feature under the Bowlers menu option. Use the button to the right of the names to pop up a list of available bowlers.

Player Names Team 2

   These players can only be selected if you are playing with a **Team** game type. The **Number of Players** in Team 2 must match the number of players in Team 1.

Type of Game

   There are three types of games, **Individual (1 game), Individual (3 game average)**, and **Team (3 game average)**. For details on these games, refer to Game Play under the Help menu. Either of the individual game types pits the bowlers listed in Team 1 against each other. The team game pits the bowlers in the team 1 list against the bowlers listed in the Team 2 list. In team play, there must be the same number of bowlers in each list.

Number of Players

   Each team can have up to four bowlers. This option selects how many bowlers per team.

Practice First

   This option allows you to throw some practice balls before you start scoring. You can use this option to get used to the lane conditions. To stop practicing and start keeping score, turn off the **Practice** option in the **Game** menu.

Create League Team

Team Name
  You can give your team a name of up to 20 characters.

Team Password
  This password allows only your team members to play your games.

Number of Players
  Each league team can have up to four players. Select the appropriate number of players for your league team.

Player Names
  Select your players for this league team. Use the down arrow button to the right of the names to pop up a list of available players.

League Play Game

Team 1

Select the league team that you wish to complete a round.

Team 2

If you want to play a round for two league teams at the same time. Select a team other than the <NONE> selection.

Team 1 Password
Team 2 Password

You must enter the password for the selected team(s) to start the league game.

Team Standings

Rank
   The team with a rank of 1 is currently in first place.

#
   This is the current team's number.

Team
   This is the current team's name from the Create Team dialog box.

vs
   This is the current team's opponent for the last round.

Last
   This is the average team score for the last round.

Avg
   This is the average team score for the entire league season.

Win
   This is the number of win points gained over the league season.

   Each round is worth seven points. The three individual games are worth two points each and the three game series is worth one point. In a Round Robin league, if the teams tie on one of the three games or on the series, the points are split between the two teams.

Lose
   This is the number of lose points given up to the other teams over the league season.

   In a Round Robin league, these are totaled the same as points in the win column, but these are points the team did not win.

Percent
   This is the percentage of   wins gained over the total number of points attempted. 100% means the team or player won all possible points.

Player Statistics

Team
    This is the current team's name from the **Create Team** dialog box.

Player
    These are the player names on the selected team.

Avg
    This is the average player score for the entire league season.

Game
    This is the average player score of the last three games.

Handicap
    This is the current handicap value for each player.

Create League

Team Names (#)
These are teams that have been added into the league. The number of teams appears next to the group name.

Import
This allows the manager to add teams to the league. These are the team files that have been saved out by using the **Create Team** option under the **League** menu.

Delete
You can delete the teams that are selected in the **Team Names** list.

League Type
Round Robin
In a Round Robin league, every team must play every other team a certain number of times. Each time a team plays all of the others is one "round." If there is an odd number of teams, some of the teams may not play on a given week. This is called a "bye."

Average
In an Average league, each team is playing to get the best average for the season. Wins and Loses are not counted, only the teams overall average.

Number of Rounds/Games
For a Round Robin league, this is how many times a team plays each other team. If there are four teams and they are playing only one round each team, each would play three times.

Handicap
These values are used to calculate each bowlers handicap.
The handicaps are calculated by this equation: (BASE - bowler's average) x (percentage).
(Example: With a base of 180 and a percentage of 90, a bowler with a 160 average would have a handicap of 18. (180 - 160) X .9 = 18.)
The handicaps are calculated after the first series. The handicaps are retroactively applied to the first round. You can recalculate the handicaps after a round is completed in the Update League dialog box.

Manager's Password
This is the league manager's password. He will need to enter this each time he loads the league.

Update League

Teams to Import

    This list shows which teams did not have byes in the current round. After the game is imported for a team the name is removed from this list.   After all the games have been imported or forced, the current round is over. The next round is then initialized and a random lane condition is set.

Import Teams

    This brings up a list of league files. The files with finished games in them will be selected.

Force Score

    This allows the manager to force a team score for this round. This is useful if the team was unable to get the league file back to the manager by the end of the round. You may also want to use this to input scores from an actual bowling alley game.

Lane Conditions

    This is set to a random value at the start of each round.

Clear Handicaps

    This clears all of the league player handicap values.

Update Handicaps

    This will adjust the bowlers handicaps based on their current average. This option is only available after a round has been completed.

Edit Handicaps

    This allows the manager to set each player's handicap value.

Edit Handicaps

Team
   Select the team to edit.

Player
   Select a player on that team to edit.

Handicap
   This is the current handicap value.

New Handicap
   Change the current handicap value.

New Bowler

Bowler Name
   Your player can have a name of up to 20 characters.

Ball Weight
   You can chose from one of seven ball weights. Your ball weight will affect the pin action.

Skill Level
   Beginner
      The beginner bowler will not have any spin on his/her ball. This is the easiest level. To throw the ball click and hold the **THROW** button. When the power bar gets to the desired level release the button.
   Intermediate
      The intermediate bowler will no have to click the throw button, after the power is set, to set his/her spin on the ball.
   Pro
      The pro bowls the same way as the intermediate bowler. The power and spin bars run faster at this level. This is the hardest bowler to control.

Bowler Animation
   This is the bowler art that will be seen on the lane.

Shirt Color
Pants Color
Ball Color
   These colors are changeable so your bowler will look unique.

Edit Bowler

Bowler Name
  Your player can have a name of up to 20 characters.

Ball Weight
  You can chose from one of seven ball weights. Your ball weight will affect the pin action.

Skill Level
  Beginner
    The beginner bowler will not have any spin on his/her ball. This is the easiest level. To throw the ball click and hold the **THROW** button. When the power bar gets to the desired level release the button.
  Intermediate
    The intermediate bowler will no have to click the throw button, after the power is set, to set his/her spin on the ball.
  Pro
    The pro bowls the same way as the intermediate bowler. The power and spin bars run faster at this level. This is the hardest bowler to control.

Bowler Animation
  This is the bowler art that will be seen on the lane.

Shirt Color
Pants Color
Ball Color
These colors are changeable so your bowler will look unique.

Select Bowler To Edit

Use this dialog box to select a bowler that you would like to edit.

Delete Bowler(s)

Use this list to select all of the bowlers that are to be deleted. You can use the shift and ctrl keys to select more than one bowler.

Set Options

Pin Setter On
> This is an animation of the pins being reset between frames. You can turn this off to make the game go faster. This must be on to have Bowler Reactions.

Reactions On
> These are animations of each bowler reacting to certain shots. Bowler reactions show up when the bowler does something out of the ordinary. For example, beginner level players are more excited about getting a strike than a pro.

Zoom on Ball
> This modifies the **Bowling Lane** view after the bowler releases the ball, and allows you to see the ball going down the lane more clearly.

Sound On
> This turns the sound on and off.

Lane Conditions
> This slider sets the amount of oil on the lane. Less oil means that the ball hooks easier. It is more difficult to control the spin on a ball in an dry lane. In league play, lane conditions can only be set by the manager.

Manager Verification

If you are the manager of this league please enter your password. You will only be able to update the league if you are the manager and have entered the password correctly.

Force Team Score

Using this dialog box you should enter the score to be given to each game played for this league round. You should only use this option if you are unable to retrieve the information from a saved league file.

Advice On Picking Up Spares

When attempting to pickup spares there are a couple of rules that you should follow. Try to use the same targeting point. If the pins left standing are to the left of the head pin move your bowler to the right. If the pins are to the right of the head pin move your bowler to the left.

Moving one board to the right on the approach means that the ball will hit the pins three boards to the left. This is a general rule and may be off a little depending on the amount of hook your ball has and the lane conditions.

Try to hit all single pins as full as posible. Try to have the ball follow through and cover as many pins as possible. If necessary use the first pin hit as a projectile to knock down others. For instance in the 4, 7, 10 split try to contact the 4 pin on the left. The 4 pin should travel across to take out the 10 pin and the ball should take out the 7 pin.