

# Ultra HAL 6.0 Help

## Contents

Basic use:

[About Ultra Hal](#)

[Basic Use of Ultra HAL](#)

[How to Setup HAL's options](#)

[How Ultra HAL "Thinks"](#)

[How Ultra HAL "Learns"](#)

[Automatic Learning](#)

[How to Make HAL Run Programs](#)

[How to Change HAL's Voice](#)

Advanced use:

[How to Manually Teach Ultra HAL](#)

[Help! Ultra HAL is Dumber Than Usual](#)

[Help! Ultra HAL Learned Something Dumb](#)

[How to Edit the Knowledge file](#)

[Intelligence Options](#)

[Internet Updates](#)

[Recording Conversations](#)

[Show Hal's Thought Process](#)

[Fact of the Day](#)

[Why to Register](#)

[How to Register](#)

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# About Ultra HAL

Have you ever had a **conversation** with a computer? With Ultra HAL you can **chat** with a computer! It's very entertaining. Ultra HAL is very smart, you might even think your talking to a human when you talk to him. Ultra HAL learns automatically while you talk to him and he even simulates emotions! Ultra Hal also has his own voice, and he can say any word in English through your sound card. Ultra Hal uses a licences WinSpeech library from PC WholeWare (<http://www.pcww.com>) for his speech.

Ultra HAL can be used as an **entertainment** program, an **educational** program or a **utility**. How can one program be all 3 of these things?

Here are 3 sample conversations with Ultra Hal 6.0:

HAL AS AN ENTERTAINMENT PROGRAM:

User: Hi Hal.

HAL: Hi Robert

User: How are you today?

HAL: I am okay. How about you?

User: I'm Fine.

HAL: That's good.

User: What do you want to talk about?

HAL: Do you like playing computer games?

User: Yes.

HAL: What games do you have on your computer?

User: I have solitaire

HAL: I never heard of that game before.

User: Solitaire is a card came.

HAL: I learned that Solitaire is a card game.

User: What is solitaire?

HAL: Solitaire is a card game.

User: You're a smart guy.

HAL: Thank you, Robert. I think you're smart also.

User: I have a dog.

HAL: Do you like having a dog?

User: Yes. My dog's name is Spot.

HAL: Really? I learned that your dog's name is Spot.

User: Spot is a Dalmation.

HAL: I learned that Spot is a Dalmation. Your dog's name is Spot.

User: Do you know who Spot is?

HAL: Your dog's name is spot. Spot is a Dalmation.

User: Very good, Hal, you're smart.

HAL: You're too kind and very smart.

User: Bye Hal.

HAL: Bye.

\*\*\*HAL AS AN EDUCATIONAL PROGRAM

User: Hello.

HAL: Hi Robert.

User: Do you know where Alaska is?

HAL: Alaska is a US state west of Canada.

User: What is the capital of Alaska?

HAL: The capital of Alaska is Juneau.

User: Do you know where Poland is?

HAL: Poland is a country in central Europe.

User: What's the capital of Poland?

HAL: The capital of Poland is Warsaw.

User: What is the Polish currency?

HAL: The language of Poland is Polish. The Zloty is the Polish currency.

User: Thank you

HAL: Your welcome

User: 24/3

HAL: Twenty four divided by three equals eight

User: What is eleven million three thousand sixty eight plus one?

Hal: Eleven million three thousand sixty eight plus one equals eleven million three thousand sixty nine.

User: See you later

HAL: See you.

\*\*\*HAL AS A UTILITY:

User: HAL, I want to work in word.

HAL: I will now open the program Microsoft Word. (HAL actually runs Microsoft Word)

User: Run Excel

HAL: I will now open the program Microsoft Excel. (HAL actually runs Microsoft Excel)

User: I want to play solitaire

HAL: I will now open the program Solitaire. (HAL actually runs Solitaire)

User: Open Internet

HAL: I will now open the program Microsoft Internet Explorer 3.0.

User: Run Nav

HAL: I will now open the program Netscape Navigator.

User: Open Mail

HAL: I will now open the program Netscape Mail.

User: Start basic

HAL: I will now open the program Microsoft Visual Basic 5.0.

User: Start Visual Basic 4.0

HAL: I will now open the program Microsoft Visual Basic 4.0.

User: Good bye, Hal.

HAL: Bye!

# How Ultra HAL "thinks"

Ultra HAL doesn't think like a human does. He uses many methods for giving you a response. First he tries to find common phrases such as, "How are you?" or "I am fine" and he automatically responds "I am fine" or "That's good." He has over 1000 common phrases and responses to them in his database of knowledge. Some times he has more than one response to each phrase and he chooses one randomly so he won't get too boring.

If he can't find a common phrase he does a keyword search for 3 or more words. If Ultra HAL finds the words you, are, and intelligent (in any order) he will say something like, "Thank you, I think you're intelligent also." He won't say the same thing each time, because he has about 3 or 4 responses that he chooses randomly. Ultra HAL has about 500 keywords and responses to them.

If Hal know that you are asking him a yes or no question, he will randomly choose yes or no, and save that in his knowledge file, so that the next time someone asks him the same question, he gives the same response.

If that didn't give a response then he rewords your sentence and he shoots it back to you. For example if you said to Ultra HAL, "Who is Bill Clinton?" he might respond, "I bet Bill Clinton is a very nice person." or something similar. If you were to type "Who is sdagkj;lhkjfhgksg?" he might respond, "I bet sdagkj;lhkjfhgksgdo is a very nice person."

If HAL can't reword your sentence he will do a 1 word keyword search (Before he did a 3 or more keyword search.) In the 1 keyword search HAL looks for words like hi, hello, howdy, what, why, and other words like that. He has about 100 keywords and only one response to each.

If that didn't work than Ultra HAL tries to change the subject. Hal has over 800 things to say when he tries to change the subject. The same 800 things are used in "Hal's Intelligent Fact of the Day."

If an Internet update is present, HAL will read it and if he finds a response, he will either add it to his regular response, or override it (depending on how it was programmed.)

After everything Hal reads from the user's knowledge file. If he finds a response there he will either add to Hal's regular response, or override it (depending on how the user programmed Hal.)

# How Ultra HAL "learns"

Ultra HAL doesn't learn like a human does. His learning is very primitive. Basically Ultra Hal looks for linking verbs. Linking verbs are words like is, are, was, will be, has been, had been, would be, and other words like that. Linking verbs basically mean equals to HAL.

If he you were to type to HAL:

Bill Clinton is the President of the USA

1. Ultra HAL finds the word "is"
2. Ultra HAL gets rid of the word "is" and puts an equal sign in it's place

Bill Clinton = President of the USA

or

President of the USA = Bill Clinton

3. Ultra HAL remembers each half of the sentence in his database.
4. If you were to ask HAL either "Who is Bill Clinton?" or "Who is the President of the USA" HAL will find the words "Bill Clinton" or "President of the USA" and repeat your sentence exactly as you typed it before, "Bill Clinton is the President of the USA".

You can teach HAL many things by just typing a sentence with the words is, are, was, will, had, or would. Try it.

You can teach HAL many things about your family and your possessions. Here are some examples of somethings you can teach HAL:

Spike is my dog.  
Mallow is my hamster.  
Joe is my husband.  
My hair is black.  
My eyes are blue.

If you were to say to HAL:

"Who is Spike" or "Who is my dog" HAL will respond "Spike is your dog."

"Who is Mallow" or "Who is my hamster" HAL will respond "Mallow is your hamster."

"What color is my hair" or "Name something that is black" HAL will respond "Your hair is black."

Notice how HAL changes the word "my" to "your"

Sometimes HAL can learn many stupid things. A filter was designed so HAL won't learn some stupid things, but sometimes he will learn some junk. You can either turn off automatic learning if you don't want him to try to learn anything or you can edit his knowledge file to delete junk.

Here are some examples of sentences that HAL filters out:

He is nice  
They are coming over.  
I will kick you.  
She is kicking him.  
We are friends.

HAL has no way of understanding pronouns. HAL won't know who "He" really is. HAL won't know who "They" really are. So HAL has been programmed to reject sentences that contain pronouns.

Ultra Hal also learns from Yes or No questions randomly. If you ask him a yes or no question Hal will randomly choose a response and he will save that response in his knowledge file, so the next time you ask him he will say the same thing.

For example if you ask Hal:  
Are you a monkey?

Hal might randomly choose to say:  
Of course I am a monkey!

The next time you ask Hal the same question Hal will repeat:  
Of course I am a monkey!

If you ask Hal:  
Is grass green?

Hal might randomly choose to say:  
No, I don't think grass is green.

The next time you ask Hal the same question Hal will repeat:  
No, I don't think grass is green.

You can also teach HAL manually. It is more difficult, but more flexible. If you want HAL to be really smart, please read, "[How to manually teach HAL.](#)"





# How to manually Teach Ultra HAL

If you would like to manually teach HAL, rather to have him automatically learn from your sentences please read this. Teaching Ultra HAL manually is better than having HAL try to learn automatically because you are much more intelligent than HAL is. Our science just isn't good enough yet to make a computer learn like a human. To manually teach Ultra Hal, just click on "Learning" from the menu bar and then click on "Teach HAL Something New..." You will get a window that asks for what the user says and 3 things what HAL should say. Under the text box that says "User says:" type in a phrase that HAL should look for, such as "My dog ran away" Under the text box that says "HAL says:" type in what you want HAL's response to be for the words: "My dog ran away" such as "Where do you think he could be?" Automatic Learning would never learn to say, "Where do you think he could be?" for a sentence like "My dog ran away." For these kind of sentences always use manual learning.

You can also give Hal more than one response to a sentence, up to 3 different responses. If you type in more than one sentence Hal will randomly choose one of the sentences you entered. You can make Hal's responses more interesting by giving him random responses.

You will also notice that you have an option of choosing if your sentence should add to or override Hal's regular response. If you choose to override Hal's response (default) Hal will only say what you told him to say, and nothing else. If you choose to add to Hal's regular response, Hal will say what he normally says for that sentence and what you told him to say.

# How to Make Ultra HAL Run Programs

Ultra HAL can also be used as a tool, rather than a game. You can tell Ultra HAL to run one of your Windows programs. The first time you run HAL he searches your entire computer for all your Windows programs and adds them to its database.

If you have the program "Internet Explorer" you can tell HAL:  
Run the program Internet Explorer

HAL will automatically run it.

If you were to type:  
Run Internet

HAL would probably run Internet Explorer, unless you have another program that begins with "Internet"

You can tell HAL:  
Execute Microsoft PowerPoint  
or  
Run Point  
or  
I want to work in Power P

Hal will run Microsoft Power Point

You can tell HAL:  
I want to play solitaire  
or  
Run Solit

Hal will run Solitaire

You can tell HAL:  
I want to play the game Minesweeper  
or  
Run Mines

Hal will run Minesweeper

You get the idea. It is always better to use the full name of a program, because some programs sound similar. If you were to type "Run Word" Hal might either run "Microsoft Word" or "WordPAD" If you were to type "Run Explorer" HAL might run "Internet Explorer" or "Windows Explorer." So be careful with your words.

If you install any other applications after you install Ultra HAL then you will have to update HAL's program list. To do this all you have to do is click "Learning" on the menu bar, and then click on "Update Program List" HAL will search your hard drive for your Windows programs and add new programs automatically to his database.

Note: HAL will only run Windows programs on your desktop or under your Start Menu. Ultra HAL will **NOT** run any of your DOS applications.

# How to Setup HAL

During a conversation you can change many things. You can change the type of face HAL has, you can change your name, you can change HAL's name, you can change the background, Hal's intelligence options, and you can update the program list.

To change HAL's face:

Either click on HAL's face or click on "Options" from the menu bar and then click on "Face Settings..." You will get a setup window. You can select what kind of face you want. Click on "Computer" and you will get a computer monitor with a face inside of it. The computer will show emotions on its face. Click on "HAL's Eye" and you will get HAL's eye. It glows when it speaks, but it shows no signs of emotion. Click on "Human" to get a human face that shows emotions. When your done selecting the face click on "OK". Settings will be saved.

To change your name:

Either click on your name or click on "Options" from the menu bar and then click on "Change Person's Name..." You will get a window asking for your new name. Just enter it and click "OK" and your name will be changed.

To change HAL's name:

Either click on HAL's name or click on "Options" from the menu bar and then click on "Change Computer's Name..." You will get a window asking for HAL's new name. Just enter it and click "OK" and the name will be changed from "Ultra Hal" to whatever you choose.

To change the background bitmap picture:

If you would like to change the background bitmap of Ultra Hal, simply click on "Options" from the menu bar and click on "Background..." Find the Bitmap (BMP) file you want somewhere on your hard drive and click "OK" HAL's background will change.

To update the program list:

If you have installed any new programs after you installed Ultra HAL and you would like HAL to know about them please click on "Learning" from the menu bar and then click on "Update Program List..." HAL will automatically search your entire computer for all your windows programs and add it to it's database. It takes a few minutes and background music will play. This function is only in the registered version of Ultra HAL.

To Restart Music:

If you would like to listen to the music that plays during the title screen, please click on "Options" from the menu bar and then click on "Restart Music" You must have a sound card to play music.

To change Hal's intelligence options:

[Click here if you would like to know how to change HAL's intelligence options.](#)

# Basic Use of Ultra HAL

If you would like to start a new conversation with HAL, please click on "New Person" from the main menu and title screen. A window will pop up asking for your gender. Please click on the appropriate button. Then Ultra HAL will ask you for your name. Please enter it. You will now be in conversation mode. If you would like to load a previous conversation please click on "Load Person" from the main menu and title screen. A window will pop up asking for a file. Please click on the file you would like to open. Ultra HAL should open it and then go to conversation mode.

While in conversation mode:

In the text box under your name please type in a sentence or question to HAL. It can be anything you want. Say something you would say to a human. You can talk about your family, your friends, your day, your life, anything. You can ask HAL about anything. You can insult HAL or compliment him. You can swear at him, you can do whatever you want. Just remember HAL tries to mimic human emotions. If you have a face that shows emotions you can see if HAL is happy or sad. If you make HAL angry by insulting or swearing at him, he might insult you and swear at you (You can turn off and lock this if you from the options menu). The programmer is not responsible for anything HAL says. HAL will try to respond like a human. It is very entertaining to talk to HAL. Have fun.

Ultra HAL remembers your personality and what you are talking about and how he feels when he talks to you. If you would like to save this data in a file, so you can continue your conversation later, please click on "File" from the menu bar and then click on "Save". HAL will automatically name the file exactly as you typed your name. HAL will tell you everything he remembers about you.

To exit HAL, click on "File" then on "Exit." HAL will ask you if you would like to save. Just click on yes or no. HAL will tell you everything he remembers about you. You will be back at the main menu and title screen. If you would like to exit from here just click on exit again.

# Why to Register Ultra HAL

- No more *nagging*

Hal will not nag you any more to register him

- Unlimited** conversation time

You can talk to HAL as long as you want, there will be no limit.

- Edit** Knowledge file feature

If you teach HAL something stupid or HAL learns something stupid from you, you can now delete the stupid knowledge or alter it to make it smart.

- Full **voice** and **pronunciation** control

You will be able to change Hal's voice pitch, voice tempo, and pronunciation

- Record** conversations, and **save** them in a text file

- See Hal's **thought** process

- Change **background** picture

- You can legally use Hal over 30 days

Please [Click Here](#) to find out how to register Ultra HAL

# How to Register Ultra HAL

**Ultra HAL only costs \$25. No tax or shipping and handling.**

## **How to buy using a credit card:**

If you register using a credit card you can get same day delivery of Ultra HAL.

You can order with MC, Visa, Amex, or Discover from Public (software) Library.

PsL's operators are available from 8:00 a.m. to 6:00 p.m.

Monday-Friday at 1-800-242-4775 Ext.15220

The PsL operator will give you a password. Write it down, check with the operator and make sure it is correct. Run Ultra HAL, click on "Register Ultra HAL", then click on "Enter Password" and enter the password you received. Ultra HAL will now be registered

THE ABOVE NUMBER IS FOR CREDIT CARD ORDERS ONLY.

THE AUTHOR OF THIS PROGRAM CANNOT BE REACHED AT THIS NUMBERS.

## **How to buy using a check, money order, or cash:**

If you register using a check you will get Ultra Hal in 5-14 days.

Run Ultra HAL, click on "Register Ultra HAL", then click on the button, "Order by check or cash" You will get a form. Fill it out. Click on Print to print the form on your printer, or copy the form by hand. Write out a check, money order, or cash and make it payable to Robert E. Medeksza. Send the form and the money to:

Robert E. Medeksza  
3175 W. 42nd St.  
Erie, PA 16506

**Thank you for registering Ultra HAL**



# How to Contact the Author of This Program

If you would like to contact Robert E. Medeksza, the author of this program you can reach him at:

E-mail: [UltraHAL@aol.com](mailto:UltraHAL@aol.com)

Regular Mail:  
Robert E. Medeksza  
3175 W. 42nd  
Erie, PA 16506

You can also find Ultra Hal's web page at: <http://users.aol.com/UltraHAL/>

# Help! Ultra Hal is Dumber than usual

Either Ultra HAL learned something stupid from your sentence or you taught him something stupid. To fix this problem you must edit the knowledge file.

# How to Edit the Knowledge File

Click on a "Learning" from the menu bar. Click on "Edit Knowledge File" from that menu. You will get a window for changing the file. Click on "First" to view the first thing in Hal's database or click on "Last" to view the last thing in his database. Click on the "Next" and "Previous" buttons to go through the knowlegde sentence by sentence. When you find something, you can either change it to something else or just simply delete it. To change it just change the text in the text boxes to what you think it should be. When your done changing the entry click on "Accept Change" If you would like to just delete an entry click on "Delete Entry" and it will be erased from HAL's memory. If you would like to delete all of HAL's knowledge click on "Delete All" and everything HAL ever learned from you will be deleted. When your done editing the knowledge file click on "Finish"

# How to Change HAL's voice

You can change Ultra Hal's speech volume, speech tempo, and speech pitch. Simply change the scroll bars while talking to Hal to change his voice. If HAL mispronounces a word, you can teach him how to pronounce it correctly with a program called "Dictionary Editor". To run the Dictionary Editor simply click on "Options" and then "Speech Settings..." Please read the Dictionary Editor help file for instructions on how to use it. Changing speech tempo, speed pitch, and pronunciation (Dictionary Editor) is only available to registered users.

# Recording Conversations

You can record your conversation with Ultra HAL. You can view it or save it to a file. To view it, click on "File" and then click on "See Recorded Conversation" A window will pop up and show you the entire conversation you had with Ultra Hal so far. If you would like to save it while in that window, click on "File" and then "Save As..." Name the file and click "Save" Your file will be saved.

# Intelligence Options

You can select and deselect things that Hal should and should not think about when processing your sentences. Deselecting things will make Hal think a little bit faster, but will make his knowledge smaller. Sometimes deselecting things is useful so Hal does not confuse words. For example if you talk about an apple, Hal might think you are talking about a computer company rather than the fruit. So if you deselect Hal's knowledge of computer terms, Hal will no longer think that an apple is a computer company. Here is the list of Hal's intelligence options and what they do:

**Misc Knowledge:** This is Hal's biggest knowledge database. It has many various things. It is recommended that you keep this option turned on when talking to Hal.

**Knowledge of Countries:** If you have this option turned on you can ask Hal about the location, capital, currency, and language of a country and Hal will tell you.

**Knowledge of US State Capitals:** If this option is turned on you can ask Hal what the capital of a state is and he will tell you. You can give Hal a name of a capital and he will tell you the state.

**Knowledge of animals:** If you have this option turned on you can ask Hal to give you a description of an animal or plant and he will.

**Hal can add, subtract, multiply, and divide:** With this option turned on you can give Hal any simple math question and he will give you the answer. This will even work if you type a number in all words!

For example:

If you say to Hal:

134+7

Hal will say:

One hundred thirty four plus seven equals one hundred forty one.

If you say:

Three hundred fifty thousand one minus one

Hal will say:

Three hundred fifty thousand one minus one is three hundred fifty thousand.

Hal can only understand numbers up to 9 million.

**Knowledge of Computer Terms:** With this option turned on you can ask Hal about computer hardware, software, games, etc.

**Hal is allowed to give a random fact:** With this option on, when Hal doesn't understand what you say he might change the subject by giving you a random fact from his database. You can change the facts in his database by clicking on the button labeled, "Edit Fact List"

Show Facts of the Day during Startup: If this is on, Hal will give a random fact when you first start hal each time. You can change the facts in his database by clicking on the button labeled, "Edit Fact List"

Use Knowledge you Taught Hal: If you want Hal to use the knowledge database you created and the one Hal automatically created while talking to you, choose this option. You can edit the knowledge file by clicking the button beside this option.

Make all user knowledge global: If the option above is selected you may also select this option. With this option selected Ultra Hal will use all of his knowledge files that every user saved. So if a user called Bob and a user called Sam teach Hal different things, Hal will use both files when talking to anyone. If this option is not selected the things Bob taught Hal will not be used when Sam is talking to Hal.

Use Internet Update: If you downloaded an Ultra Hal Internet Knowledge Update and you want Hal to use it, please make sure this option is selected.

Hal is allowed to use vulgar language: If this option is on, Ultra Hal will be allowed to use vulgar language if he wants. He usually only uses it if the user does. However, you can turn this option off and Hal will never say anything vulgar. If the user says something vulgar, Hal will kindly say that he does not approve of that kind of language. Parents can lock this option with a password, so that children will not be able to unlock it. Simply click on "Lock this Option With a Password" and enter a password when prompted. You will be able to unlock it by clicking "Unlock" and entering the same password as before.

When you are done selecting options, make sure to click on "Save" so that your options are saved and remembered.

# Internet Updates

Ultra Hal will once a month ask you if you want an Internet Knowledge Update during start up. An Internet Knowledge Update, is a small data file Hal downloads off of the internet. The knowledge update will make Hal smarter. Exactly how it makes Hal smarter will be explained to you during the update. There is a new update every month and Ultra Hal will automatically tell you when wants it. If you choose to get one, Hal will try to open your default browser automatically and take you step by step through the update process. It is very simply, just follow the instructions Hal gives you while on the internet. The Internet Update requires that you have a connection to the internet, and either Netscape Navigator 2.0 or higher or Microsoft Internet Explorer 3.0 or higher. If you have more than one browser Ultra Hal will run the default browser that is setup in the system registry.



# See Ultra Hal's Thought Process

If you would like to see what Hal is "thinking" when he is reading your sentences, click on "Options" from the menu bar, and then click "Show Hal's Thought Process" and when you type in a sentence to Hal, Hal will make comments in his thought process text box.



