

Preface

Basically Basic

So, here we are at the beginning. Well, almost the beginning. The beginning is really a relative term. I assume that you already know how to read. I'll bet you know how to write. I'll even go so far as to say that it is likely that you know a lot about language structure and can translate almost any sequence of words. For example, if I say "go to beginning", you will likely look back up to the top of this page at the beginning of this paragraph.

Guess what, you already basically know basic.

Basic is really...well...basic. The basic programming language is a clever computer language that uses common, easy to understand phrases. Once you write your code in basic, the compiler crunches your words into a machine code that the computer can understand. In the case of the PIC microcontroller, the compiler will crunch your code down to a bunch of hexadecimal values. Thankfully, we won't have to learn hexadecimal...I hate hexadecimal.

Why PICs

Well, apart from the fact I really like them, they are wickedly cool and cheap. I suppose the reason I really like them is the fact that they are wickedly cool and cheap.

For those of you who happen to be reading this and for some reason picked it up without a clue in the universe why you picked it up.....PIC stands for "Peripheral Interface Controller"

Why Basic

One the biggest reasons to learn basic is, it's really pretty easy. I mean come on, it's just basic commands. Plain English. The other reason to learn basic is it sets you up to learn the really powerful languages. If you learn basic then you learn many of the basics of most all the other popular programming languages.

Wow, did you see that? I accidentally wrote that last sentence in basic! "**If** you learn basic **then** you learn much of most all the other languages." **If** and **Then** are basic commands. **If** this **Then** that. **If** the sun is out **Then** turn off the light. The only odd thing about using **If** and **Then** is you need to add **End If** when you're done.

Well, let's not worry about any of this now. I really want to just get started. I want to build stuff!

I do want to talk a bit about my plan here. What I want to do is start off simple. We are just going to build the simplest of circuits. Once we have it constructed, we are going to program the chip and plug it in. I want this to build fast and fun. We will try to introduce at least one new concept on every project. Not to worry though, it will be fun and cool.

I recommend doodling on the rest of this page. I really have no plans for it. I could have gone on and on about basic but I know that is not really what you want.

PIC Programming for the Impatient.
The *Basic* edition

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Brian L. Patton

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IC_PROG was written by Bonny Gijzen

DIY K128 was written by Peter Crowcroft, DIY Electronics (HK) Ltd

Special Thanks to these world wide web sites for their science and word trivia.

<http://www.jimwegryn.com/Words/WonderWords.htm>

<http://www.firstscience.com/SITE/factfile/factfile.asp>

<http://www.authorsden.com/visit/viewarticle.asp?AuthorID=4399&id=13635>

http://www.windows.ucar.edu/cgi-bin/tour_def/the_universe/NS.html

Windows to the Universe team. Ecosystems. Boulder, CO: ©2000-04 University Corporation of Atmospheric Research (UCAR), ©1995-1999, 2000 The Regents of the University of Michigan, December 4, 2002. Online. Available: <http://www.windows.ucar.edu> . December 8, 2005.

<http://www.pctechnician.com/biology.html>

http://www.manbottle.com/trivia/Einstein_s_Riddle.htm

<http://www.butlerwebs.com/jokes/definitions.htm>

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To my beautiful wife, Tracy,
who seems to put up with everything.

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Locating and installing that silly software.

mikroBasic

The mikroBasic software can be downloaded from:

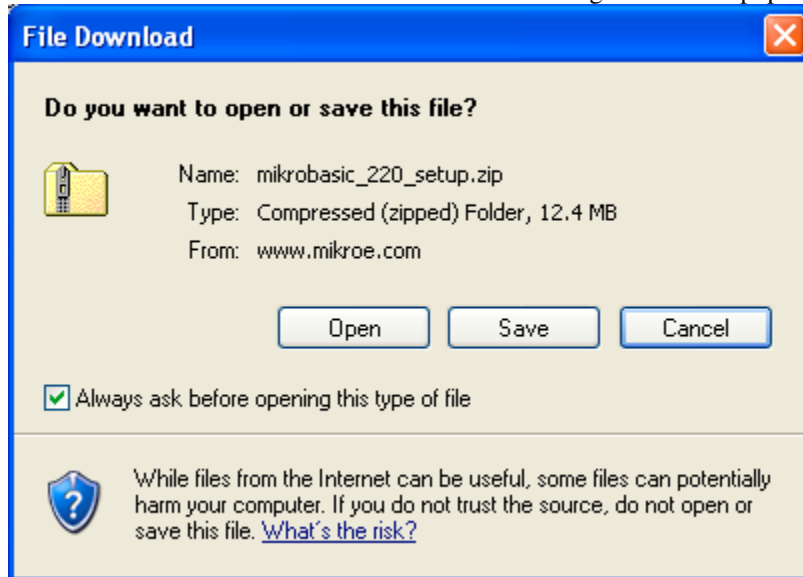
<http://www.mikroelektronika.co.yu/english/>

Once you get there, click on “Compilers,” which at the time of this writing was located near the top on the left hand column. From there, click on the mikroBasic icon. That should take you to the “Free Download” option.

Ultimately, you should end up here:

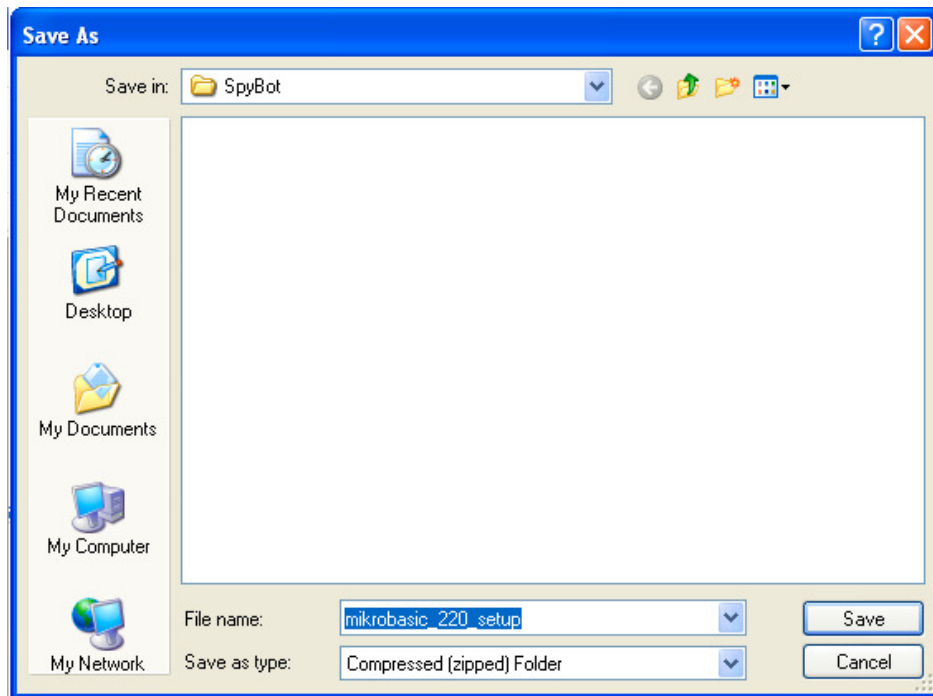
<http://www.mikroelektronika.co.yu/english/product/compilers/mikrobasic/download.htm>

I would then click on the “Download mikroBasic” link. You should now get a box that pops up like this:



From here I would click the save button. You now should get a directory selector like this one:

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Here, I would recommend making a new directory to copy into and then clicking “Save” For those of you who do not know how to create a new directory, simply click on the little folder picture with the orange star on the upper right.

Before you move on, go back to the mikroBasic web page and download the manual.....the help file in the software is great, but it is hard to beat a nice printed manual.

Once the downloading is complete, open the folder you created and saved the mikroBasic compiler too. Double click on the zipped up folder and then double click on the setup file. You should then end up with a nifty window like this:



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I guess from here, I would simply follow along with whatever they tell you too. I would think that by the time you read this, the instructions will change from this point anyway.

IC-Prog: The chip burner software.

Okay, this one starts off kind of tricky. Ultimately we are going to go through the same steps we did for mikroBasic, it is just that the IC-Prog web-site has one odd feature.....there appears to be no clear way to enter it. Anyway, go to this here site:

<http://www.ic-prog.com/>

Now, you will likely see a big title and description of what IC-Prog is. Below that , there is a screen shot of the software. Well, at the time of this writing, that picture is the link. Click on the screen shot picture in the center of the window. It should take you here:

<http://www.ic-prog.com/index1.htm>

From here, use the slider on the left side to scroll down the column until you see the “Download” link. Now click on the word “Download”

Now use the right hand scroll to get down to the list of downloadable files. I would just select the latest and greatest. At the time of this writing it was:

[IC-Prog Software 1.05D Multi-Lingual](#)

From here, follow the same procedure you used to download and save mikroBasic.

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