PICInfo documentation

The Great Cow BASIC development team @ 2020

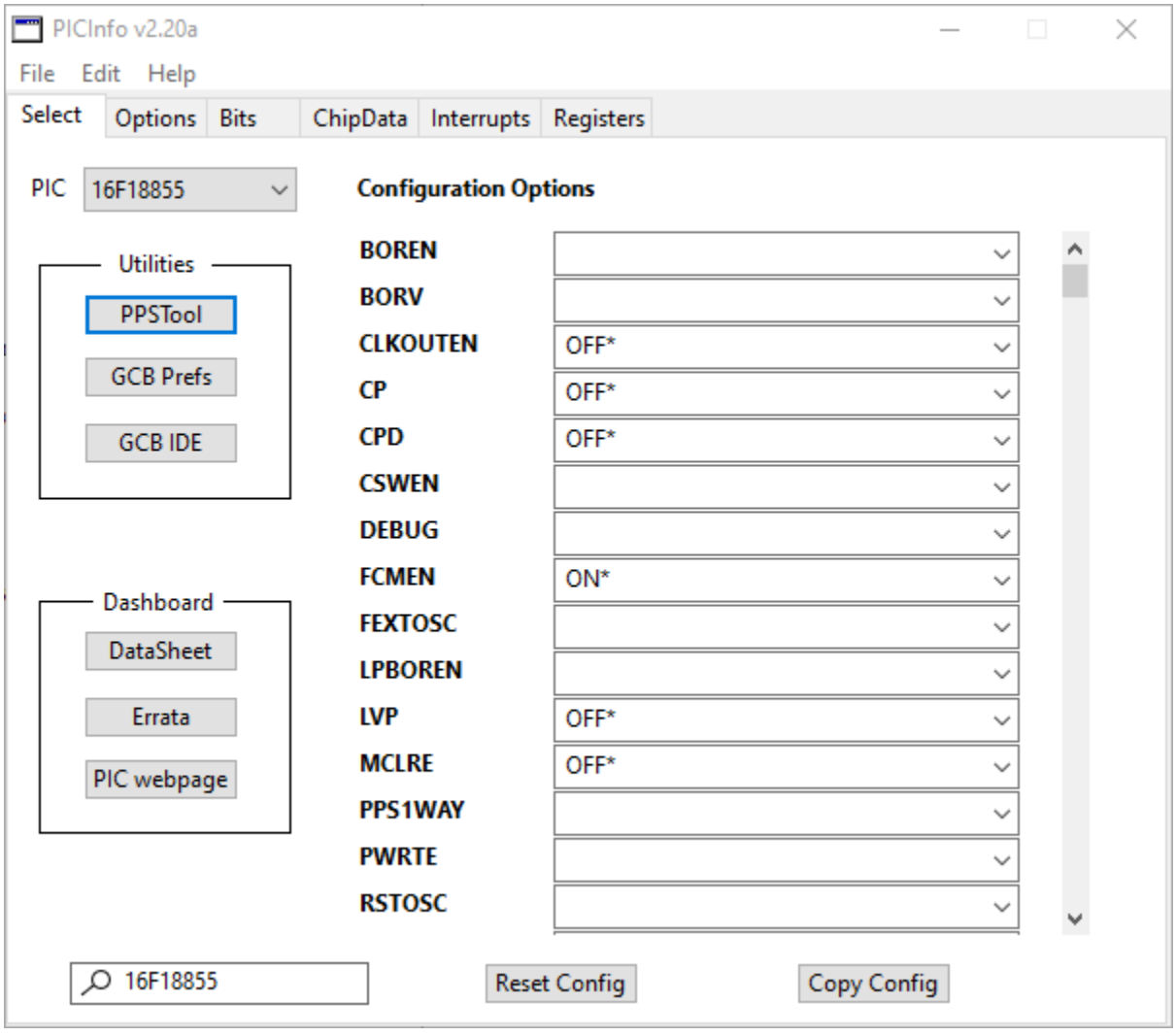
Introducing PICInfo

Welcome to the PICInfo software. An support application for Great Cow BASIC.

This application supports Microchip PIC microcontrollers only, for AVR see AVRInfo.

This is a free application that generates configuration code to be inserted into your project. Using an intuitive interface, it enables and configures the coniguration functions specific to your application.

The application also provides details of the microcontroller in terms of parameters like registers, register bits, interrupts. PICInfo supports 8-bit PIC microcontrollers.



Operating System Support

PICInfo is released with support for Windows, Linux and macOS.

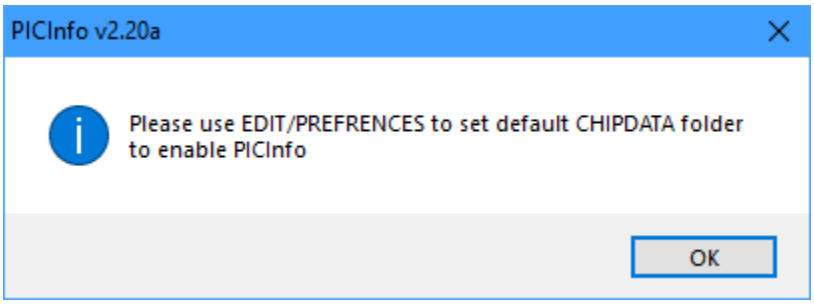
The application for Windows is included in the Great Cow BASIC release.

Operating System Specific Build

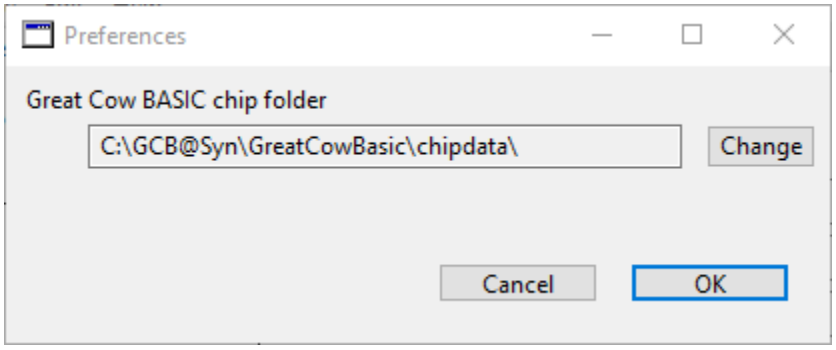
As the software is Open Source you can create the application for any of the supported operating systems. Download and install the XOJO development software, load the source PICInfo project and enjoy. You can modify the project and share.

First use of the application

The application requires a default Great Cow BASIC default CHIPDATA folder. The application will show the following `Initialising` as the selected microcontroller. The pictures show the initial start up message.



Select `OK` and then select `EDIT/PREFERENCES` to set the default Great Cow BASIC default CHIPDATA folder. As show below:



The dialog will validate the selected folder. The folder **MUST** contain the chipdata.def file.

Changes

Formal Release

Reference	Time Stamp
ASCIIDOCs rendered	2020-12-21 11:42:02 GMT Standard Time
Master ToC information	2020-12-21 11:23:51 GMT Standard Time

Changes in this release

First release.

This is the Help file. Please refer the sub-sections for details using the contents/folder view.

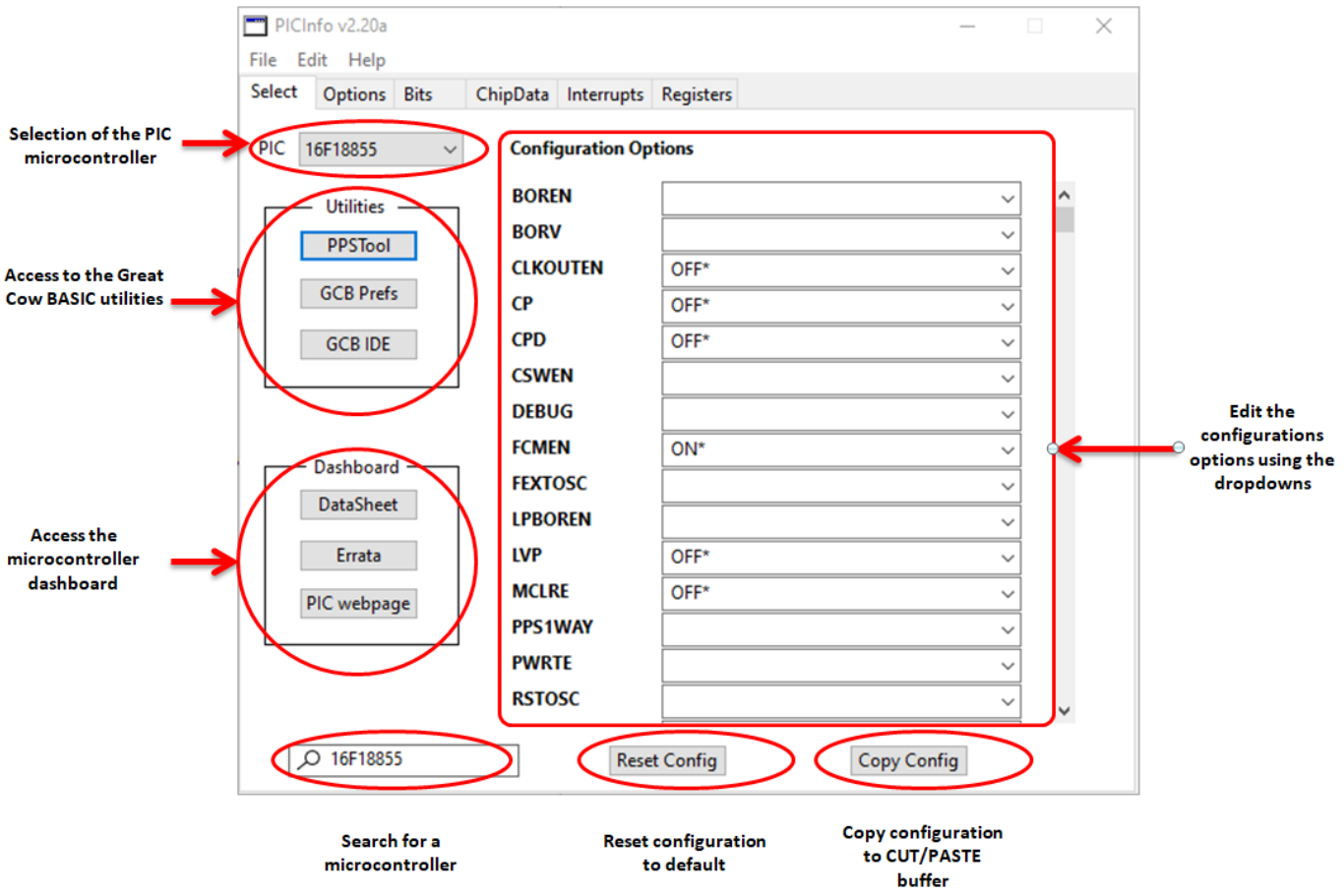
Select Tab

Introduction:

The Select Tab is the key interface within the application. This tab enable the following:

1. Select of the PIC microcontroller
2. Access to the Great Cow BASIC utilities - these are Operating System Specific and microcontroller specific
3. Access the microcontroller dashboard
4. Search for a microcontroller
5. Edit the configuration options
6. Copy the configuration to the CUT/PASTE buffer, and
7. Reset the config to the defaults

The picture below shows the main area of the Select Tab



Selection of the microcontroller

Selection can be made using two methods. Use either the `PIC drop menu:` or the `search:` dialog.

You can filter the microcontrollers shown see Set Filter

Utilities

Selects microcontroller and operating specific utilities.

`PPS Tool button:` is supported by Windows and microcontroller that have PPS. Selection will launch the PPS Tool application.

`GCB Pref button:` Great Cow BASIC preferences is for Windows only. Selection will launch the Great Cow BASIC preferences application.

`GCB IDEbutton:` Great Cow BASIC preferences is for Windows only. Selection will launch the SynWrite IDE.

DashBoard

Selects microcontroller specific datasheets.
`Datasheet button:` Will open the Microchip PDF datasheet file for the selected PIC microcontroller in your web browser.

`Errata button` Will open the Microchip PDF errata file for the selected PIC microcontroller in your web browser.

`PIC webpage button` Will open the Microchip web page for the selected PIC microcontroller.

Copy Config

`Copy Config button:` Copy any of the configuration options set to the CUT/PASTE clipboard. You can paste them into your Great Cow BASIC IDE or other editor.

Reset Config

`Reset Config button:` Resets the configuration options removing all edits.

Configuation Options

`Dropdown dialogs:` This permits the editing of the configuration. Items marked with * are the Great Cow BASIC default selections.

Options Tab

Introduction:

This tab shows the config options specific to the microcontroller.

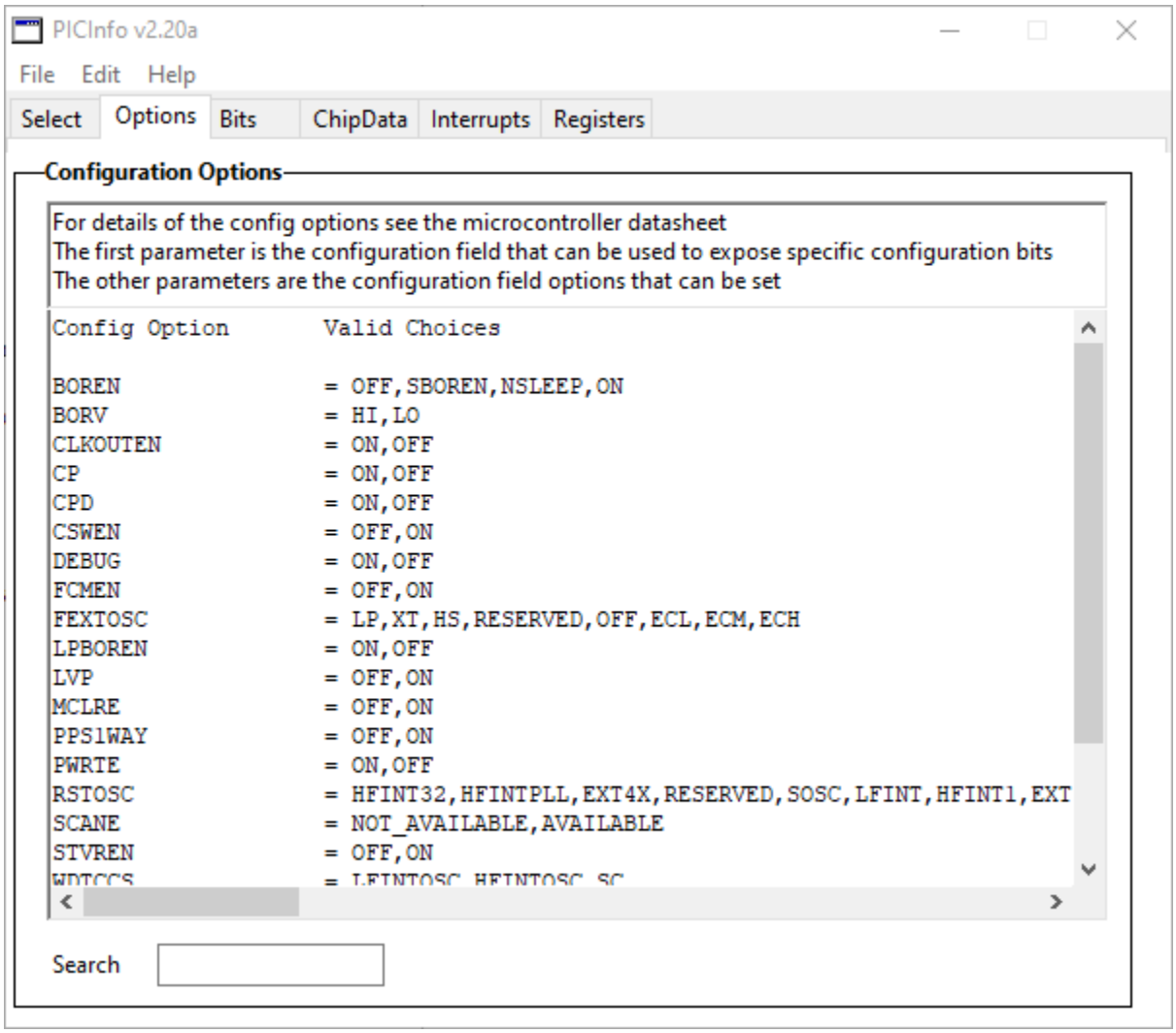
The first parameter is the configuration field that can be used to expose specific configuration bits. The other parameters are the configuration field options that can be selected.

For specific details of the configuration options, please refer to the microcontroller datasheet and if applicable the errata for the microcontroller.

Search

The `search:` dialog enables basic search of the data shown.

Example tab



Bits Tab

Introduction:

This tab shows the register Bits specific to the microcontroller.

The four colums show the bit name, register relate to the bit, the bit address (0 to 7) and the address

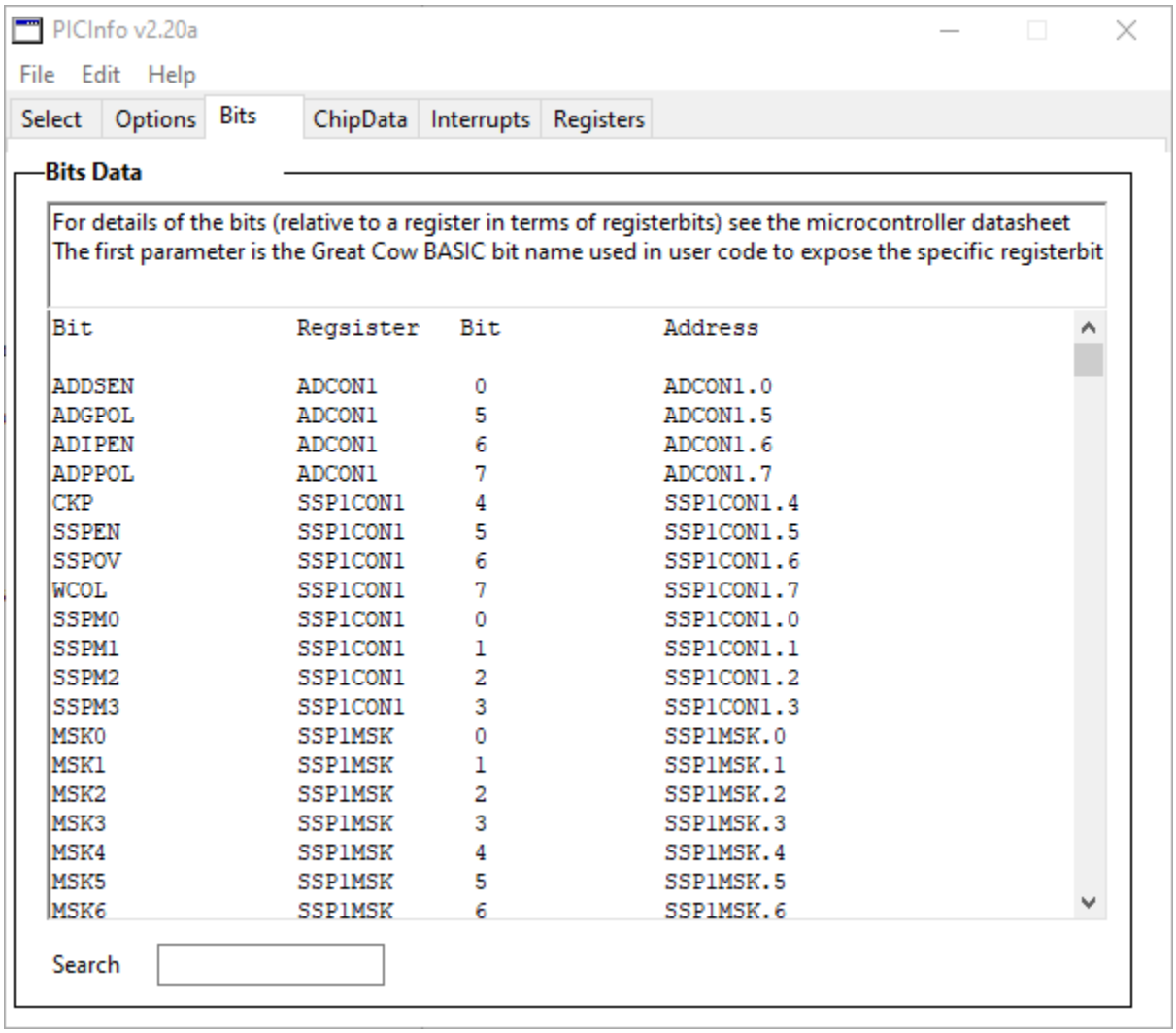
expressed as Regiser.bit_value.

For specific details of the bits, please refer to the microcontroller datasheet and if applicable the errata for the microcontroller.

Search

The `search:` dialog enables basic search of the data shown.

Example tab



ChipData Tab

Introduction:

This tab shows the Great Cow BASIC description of the microcontroller.

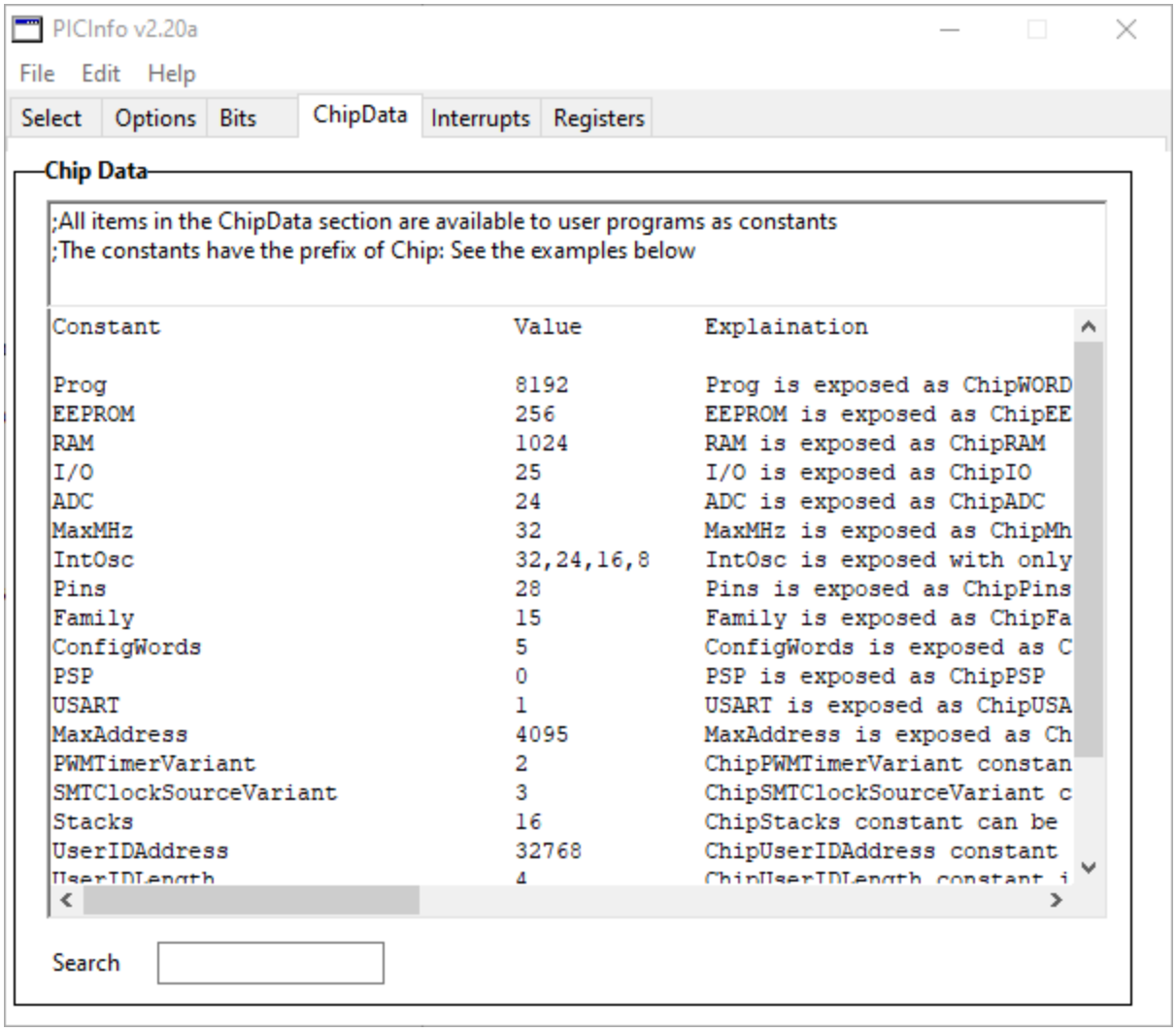
The three colums shows the Great Cow BASIC constant name, the value of the constant and the explaination of the constant. All constants are available within user programs with the prefix of `CHIP`.

For specific details of a constant, please refer to the microcontroller datasheet, the errata for the microcontroller or ask a question on the Great Cow BASIC forum, see http://sourceforge.net/projects/gcbasic/forums

Search

The `search:` dialog enables basic search of the data shown.

Example tab



Interrupts Tab

Introduction:

This tab shows the Great Cow BASIC interrupts for the microcontroller.

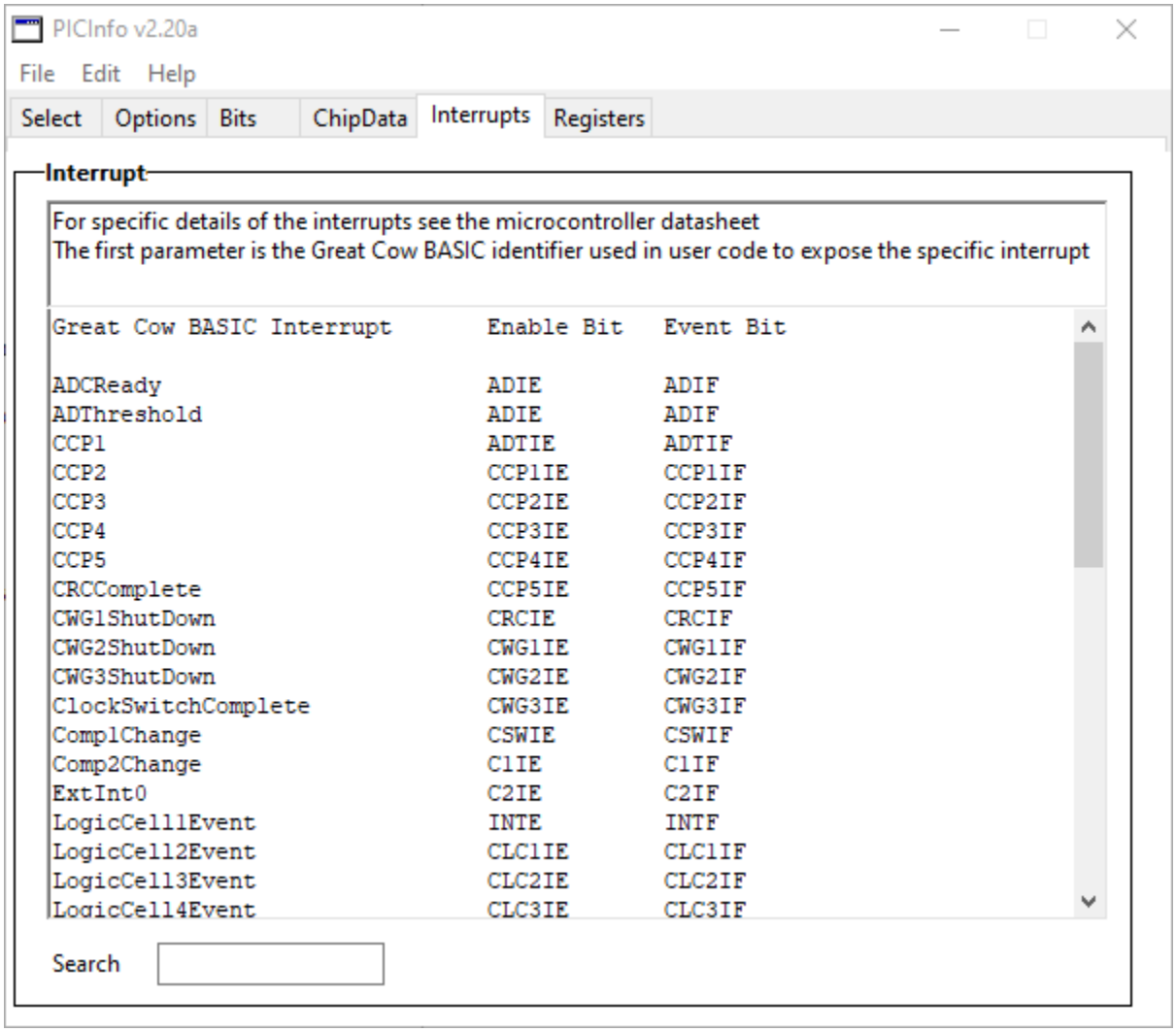
The three colums shows the Great Cow BASIC interrupt name, the bit Great Cow BASIC will use to enable the interrupt and the bit Great Cow BASIC will use to clear the interrupt after the interrupt routine has completed.. All Great Cow BASIC interrupts are available within user programs when using `ON INTERRUPT`.

For specific details of a interrupt, please refer to the microcontroller datasheet, the errata for the microcontroller or ask a question on the Great Cow BASIC forum, see http://sourceforge.net/projects/gcbasic/forums

Search

The `search:` dialog enables basic search of the data shown.

Example tab



Registers Tab

Introduction:

This tab shows the register specific to the microcontroller.

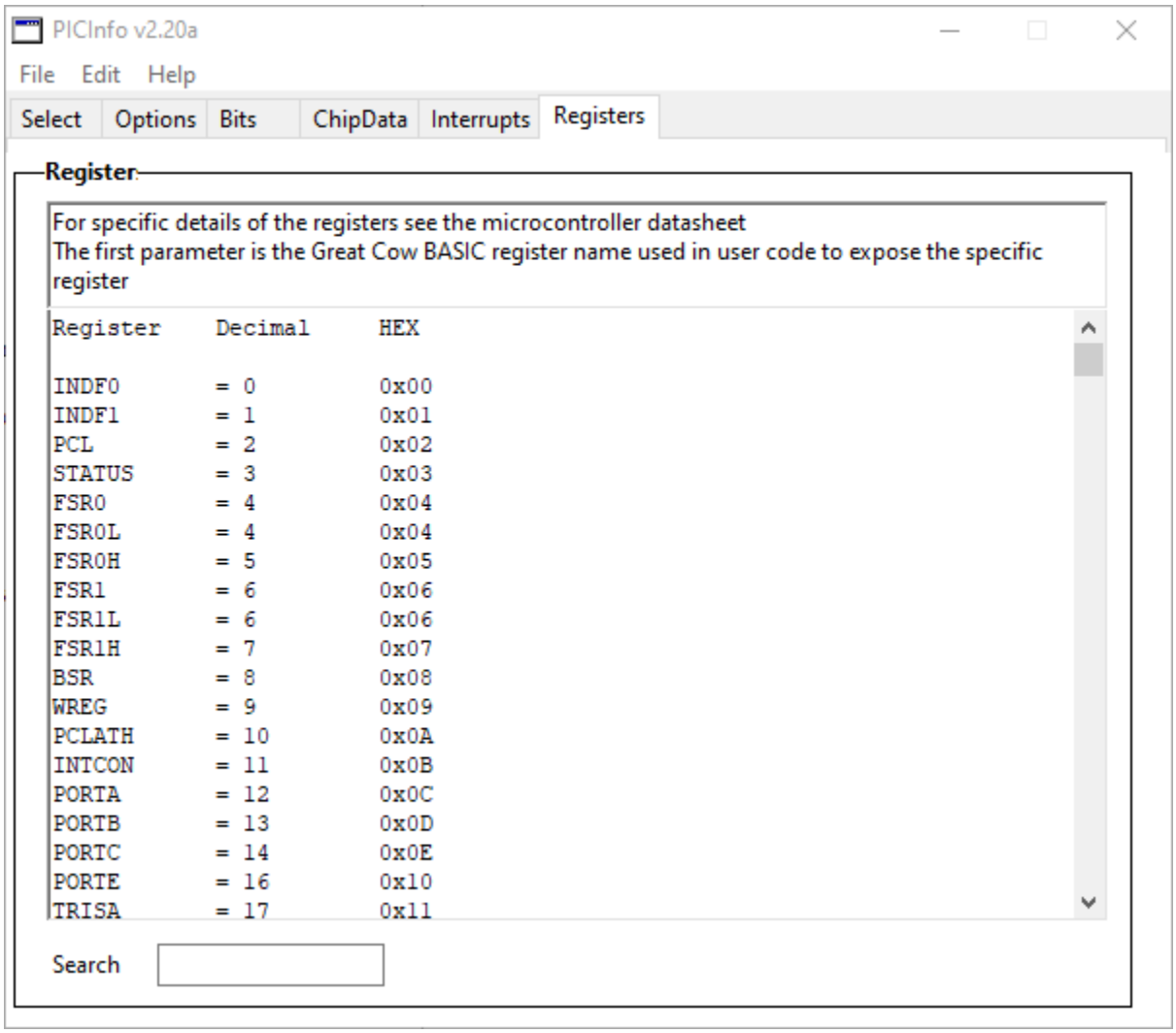
The three colums show the register name, the decimal address of the register and the hex address of the register.

For specific details of the register, please refer to the microcontroller datasheet and if applicable the errata for the microcontroller.

Search

The `search:` dialog enables basic search of the data shown.

Example tab

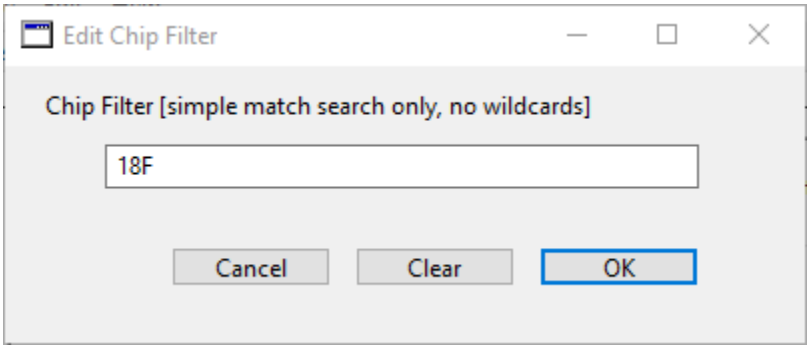


Filters

Introduction:

This dialog enables the setting of a microcontroller filter, or, to clear an existing filter. A filter can be used to reduce the number of microcontrollers show in the Selection tab PIC dropdown.

The picture shows the dialog:



The search is a basic match. The search does not support wildcards or regex searches.

To clear a filter select the `clear:` button.