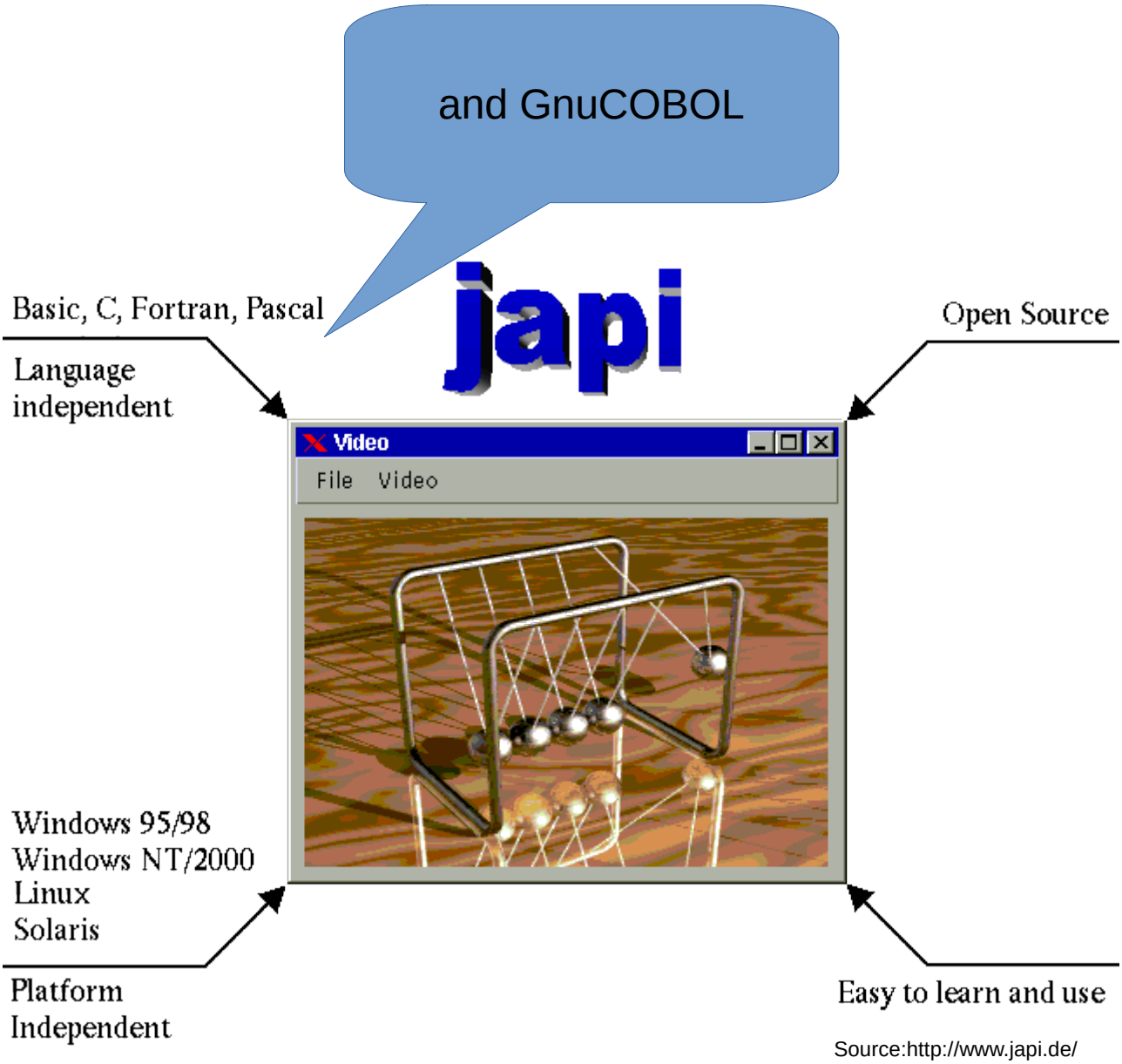
GnuCobol with Japi
How it works and how to install Japi2



Japi is an open source free software GUI toolkit, which makes it easy to develop platform independent applications. Written in JAVA and C, provides the JAVA AWT and SWING Toolkit to non object oriented Languages like C, Fortran, Pascal and even Basic and **GnuCobol**

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easy to use

is easier to learn and use than all common APIs. Since its not object-oriented, its possible to learn even with little experience in programming.

platform independent

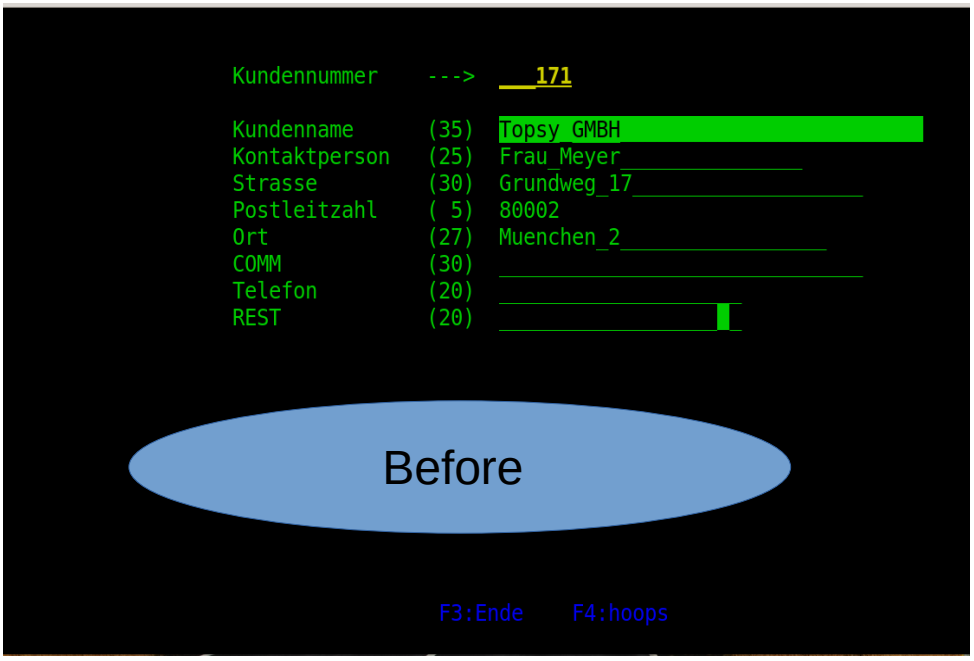
currently supports all Win32 platforms, Linux and Solaris. Porting your application between platforms is as easy as recompiling.

And GnuCOBOL!

language independent

provides an interface to common C, Fortran and Pascal Compilers. For Basic Programmers there is a Basic Interpreter running on Unix and WIN32.

Source:http://www.japi.de/



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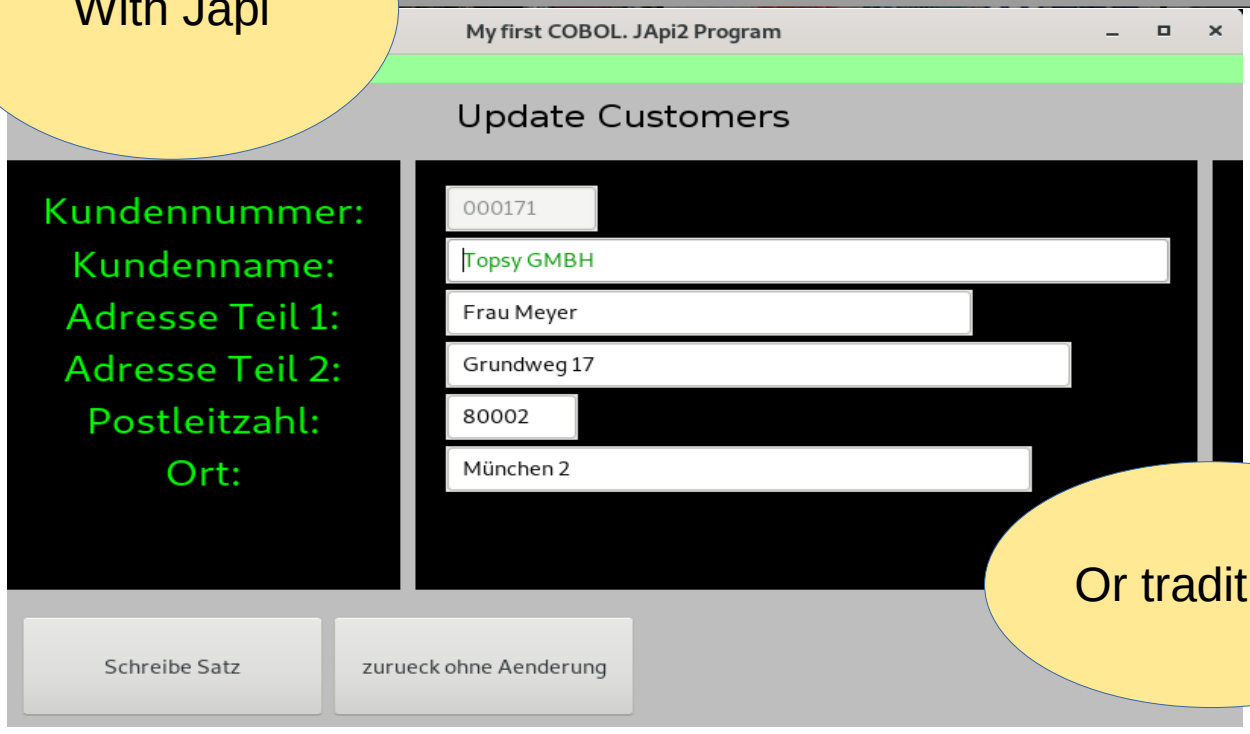
With Japi



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You use **COBOL** commands, no curled brackets etc.

```
MOVE J-FRAME("***COBOL***     GnuCOBOL with GUI using Japi     ***meets Japi***") TO WS-FRAME
MOVE J-SETCOLORBG(WS-FRAME,z155, z155, z155) TO WS-RET  *> grey
MOVE J-SETFONT(WS-FRAME, J-HELVETIA, J-PLAIN, z24) TO WS-RET
```

1. make a frame
2. give it a color
3. give the font a certain size

```
MOVE J-SETPOS(WS-FRAME, z500, z200)    TO WS-RET
MOVE J-SETSIZE(WS-FRAME, z1400, z800)  TO WS-RET
```

4. Put the frame on a certain position on the screen
5. and give it a certain size

```
MOVE J-TEXTFIELD(WS-FRAME, z35) TO WS-VNAME
MOVE J-SETCOLOR(WS-VNAME, z0, z153, z0) TO WS-RET
```

6. You want to put an I-O-field
7. In the RGB color of your choice

```
MOVE J-LABEL(WS-FRAME,"Kundenname:") TO WS-LABEL-KDNAM
```

8. and add a label to your field
9. till n… is COBOL code …….

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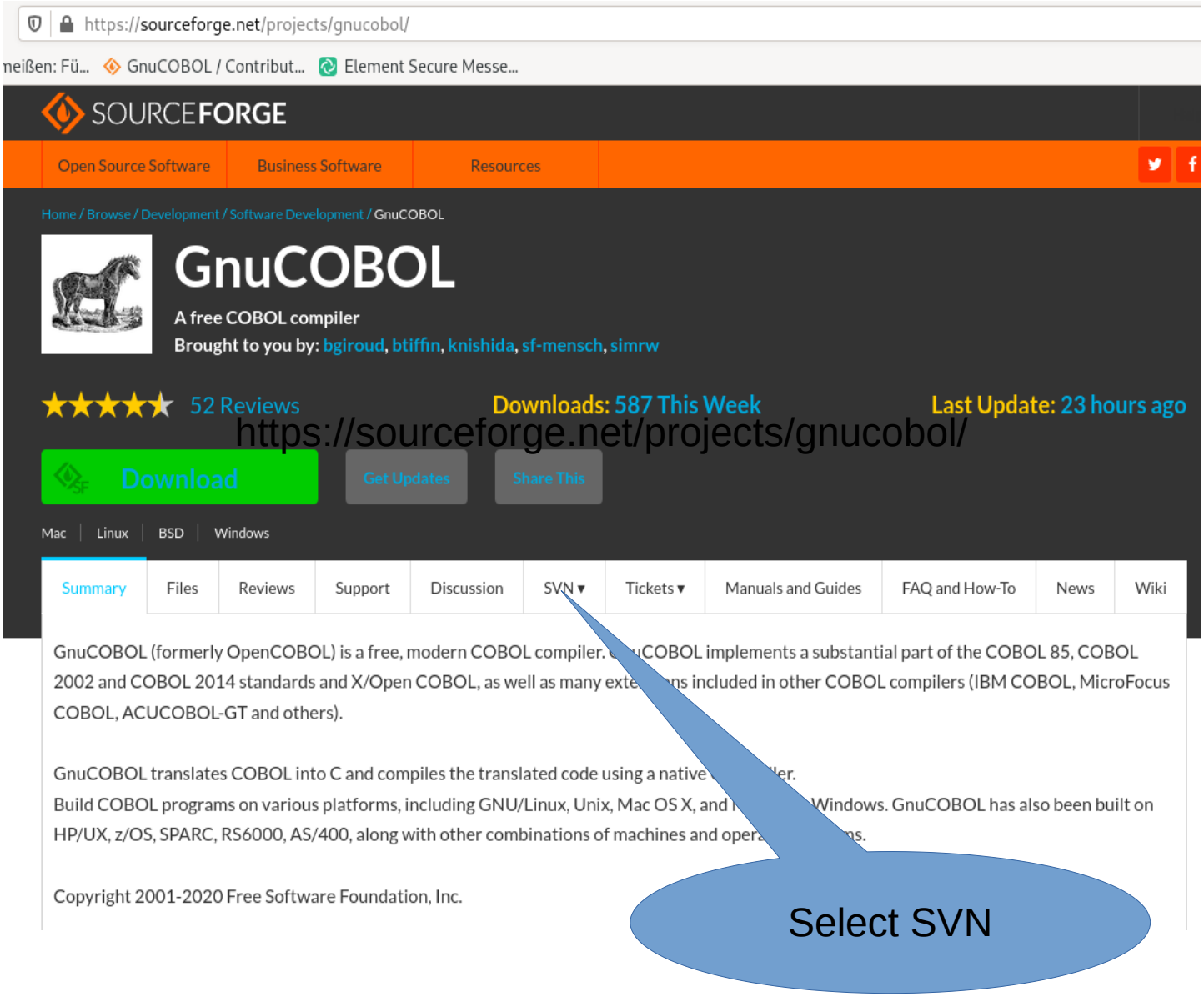
Installation
On LINUX Debian 11

Go to the GnuCOBOL page
https://sourceforge.net/projects/gnucobol/



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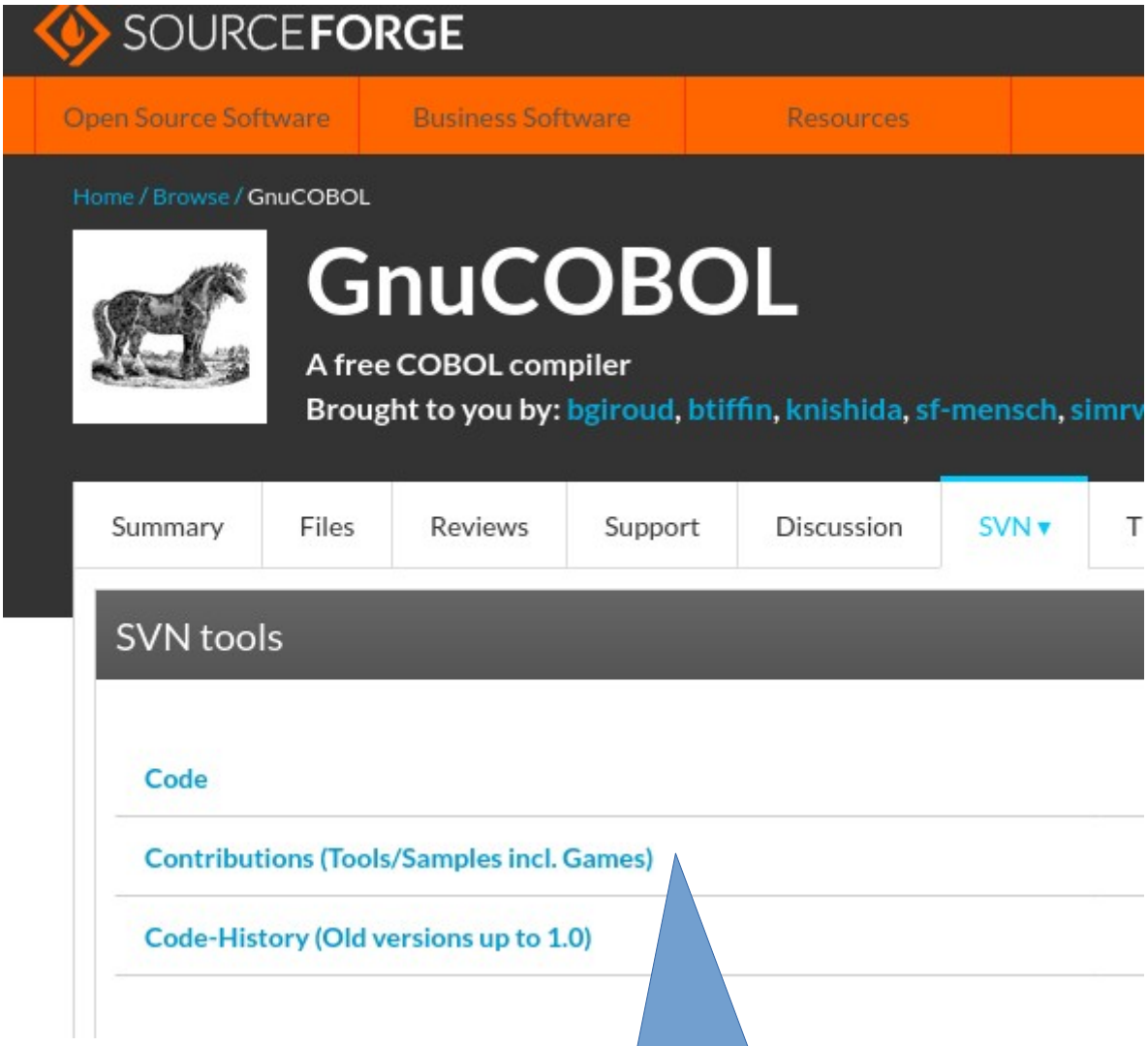

Select Contributions

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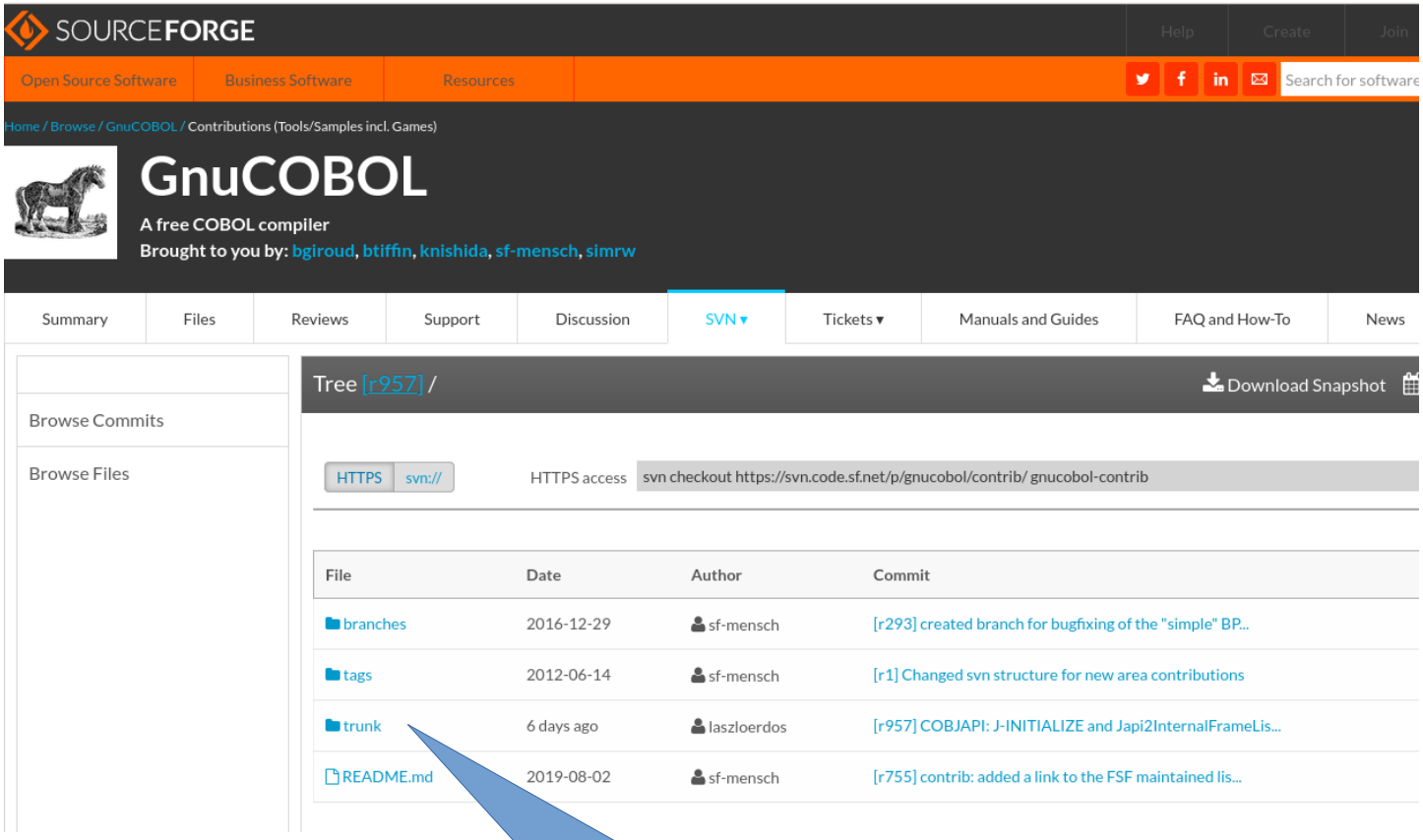

Select trunk

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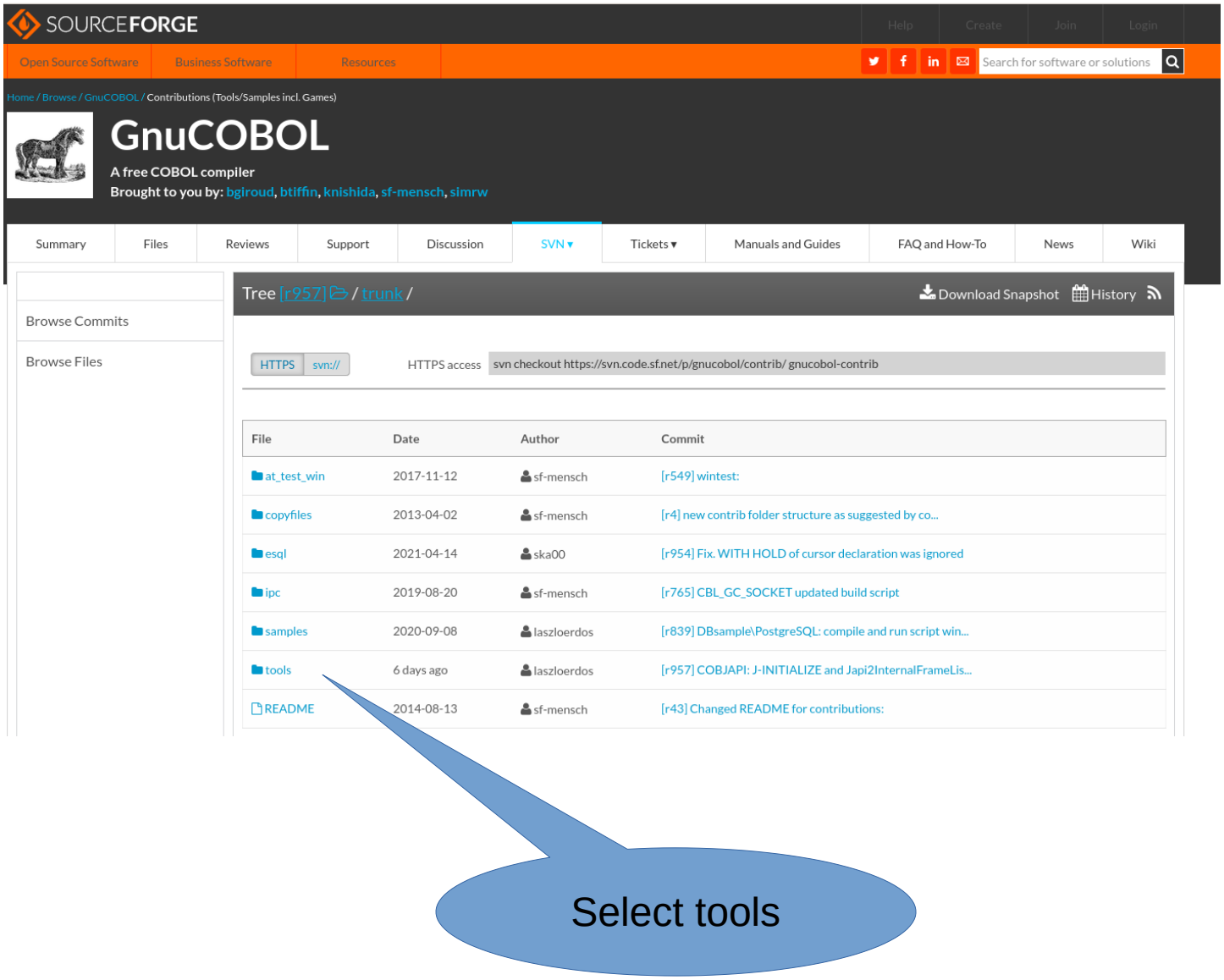
How it works and how to install Japi2



Select tools

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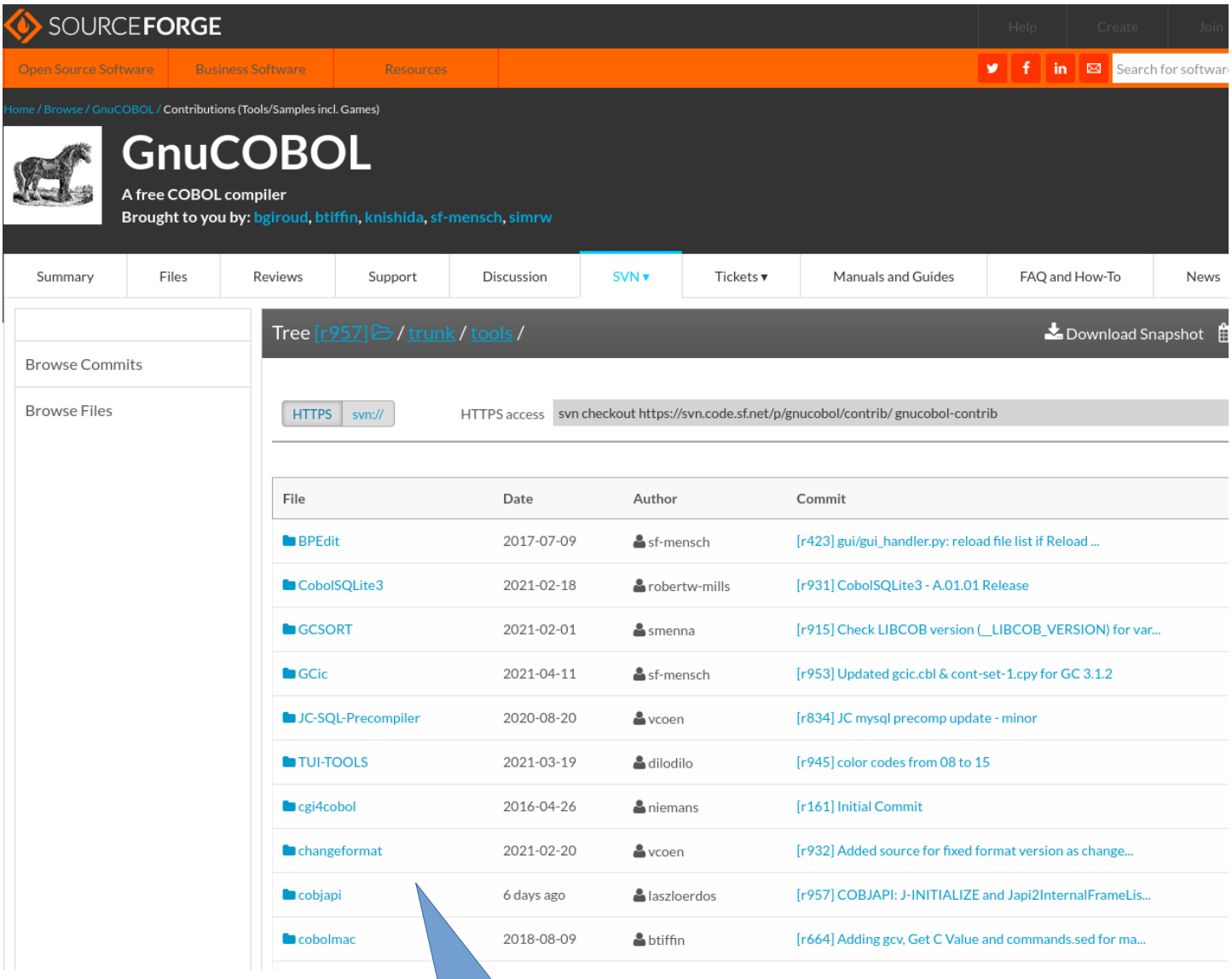
GnuCobol with Japi
How it works and how to install Japi2



Select cobjapi

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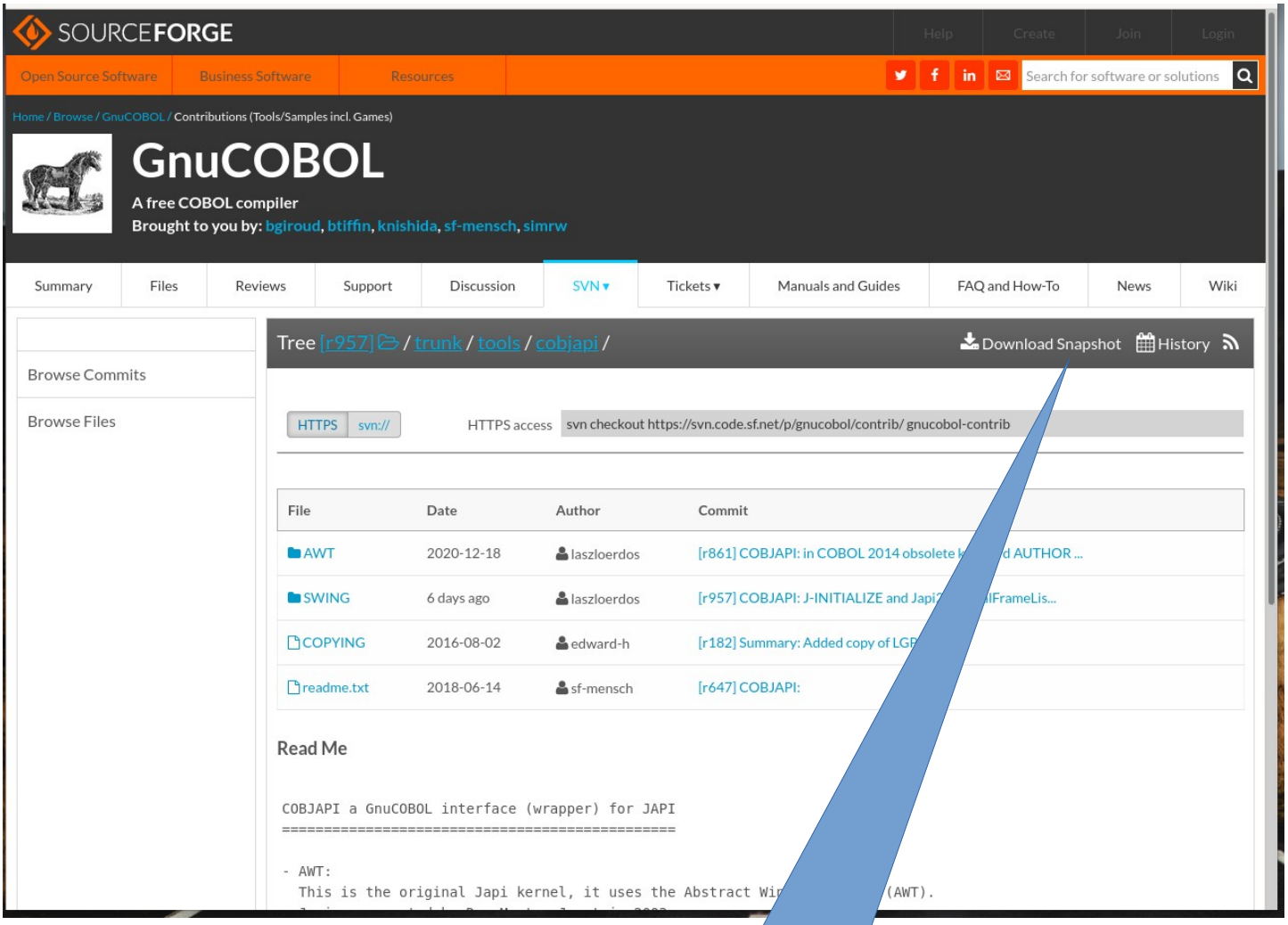
GnuCobol with Japi

How it works and how to install Japi2



And select „Download Snapshot“

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GnuCobol with Japi
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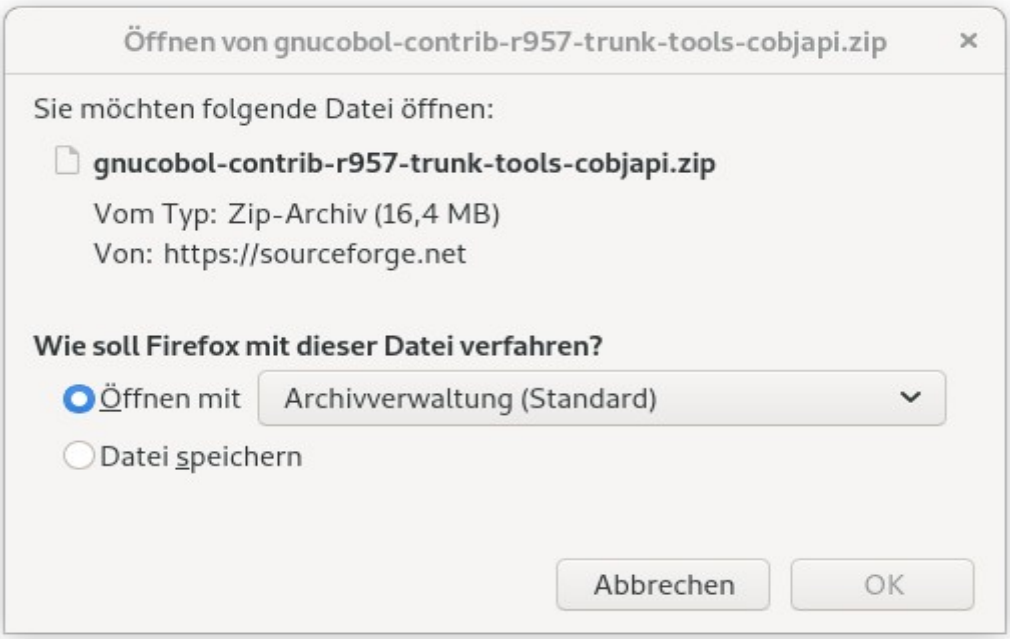
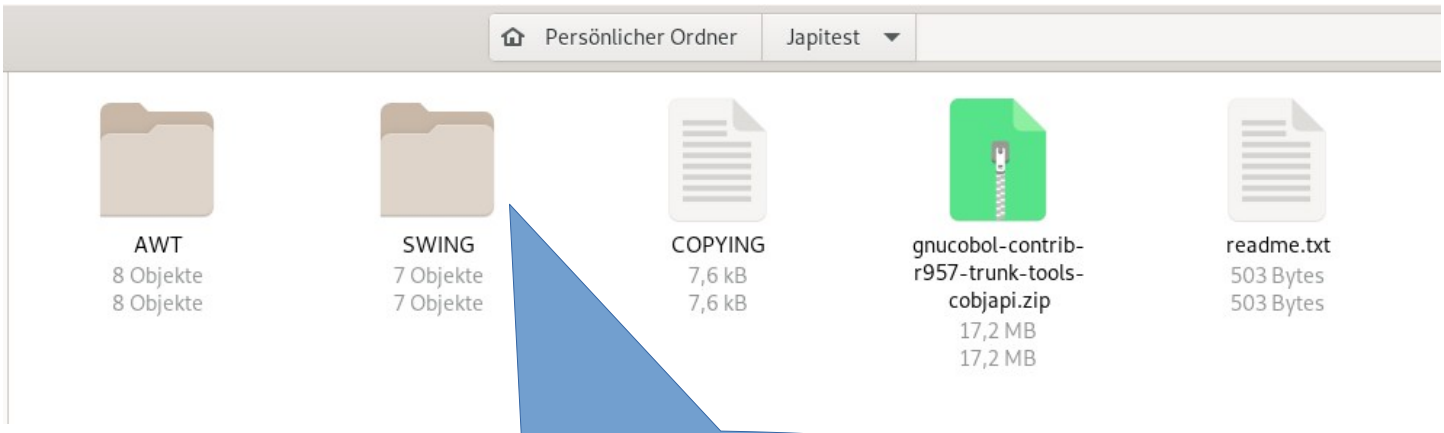


Unpack and move the 5 Objects into to a directory of your choice (in this example we use /home/erich/Japitest)



Open SWING in a Terminal
(AWT you do not need)

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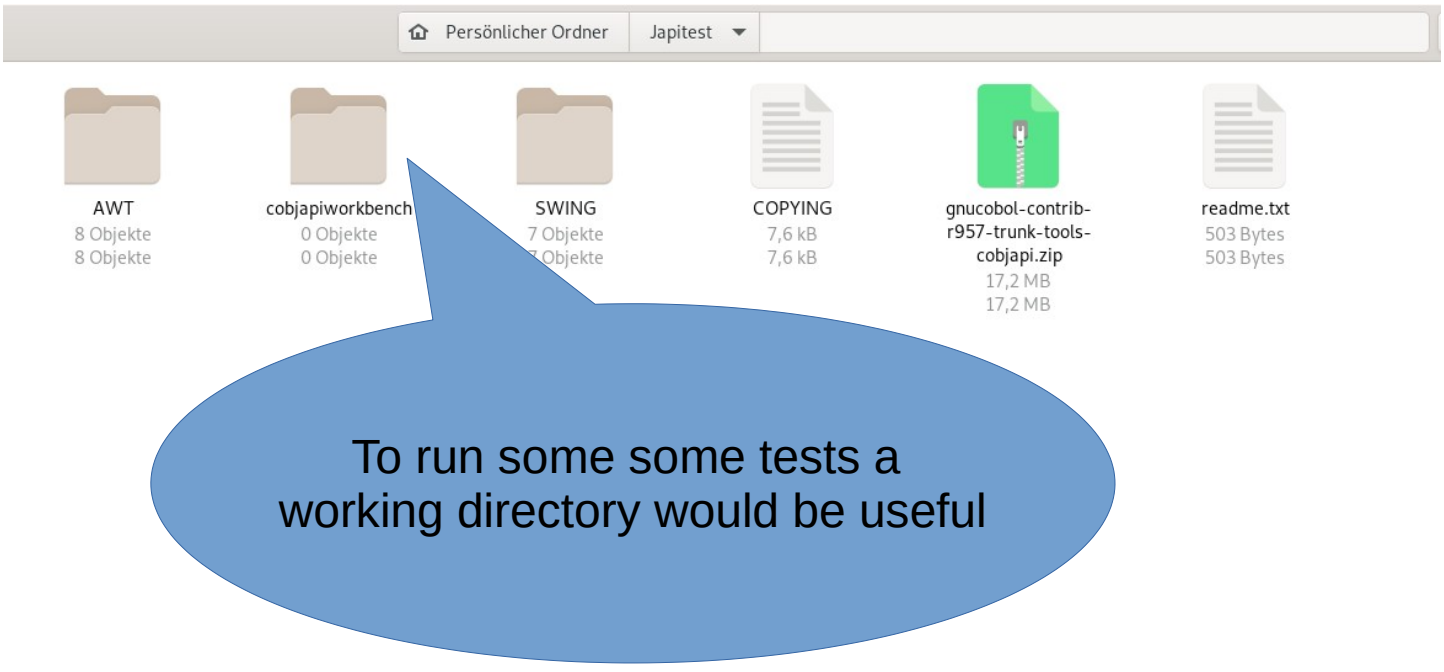
GnuCobol with Japi
How it works and how to install Japi2

In the terminal say <make> to compile cobjapi.cob (which is the connection from your GnuCOBOL programs to the japi server), japilib.c, imageio.c, fileselect.c and all the examples

```
erich@santiago:~/Japitest/SWING$ make
make -C src_c
make[1]: Verzeichnis „/home/erich/Japitest/SWING/src_c“ wird betreten
cobc  -O2 -c japilib.c
cobc  -O2 -c imageio.c
cobc  -O2 -c fileselect.c
cobc  -O2 -b -o libjapi.a japilib.o imageio.o fileselect.o
make[1]: Verzeichnis „/home/erich/Japitest/SWING/src_c“ wird verlassen
make -C src_cobol
make[1]: Verzeichnis „/home/erich/Japitest/SWING/src_cobol“ wird betreten
cobc  -O2 -free -c cobjapi.cob
cobjapi.cob:184: Warnung: handling of parameters passed BY VALUE is unfinished;
```



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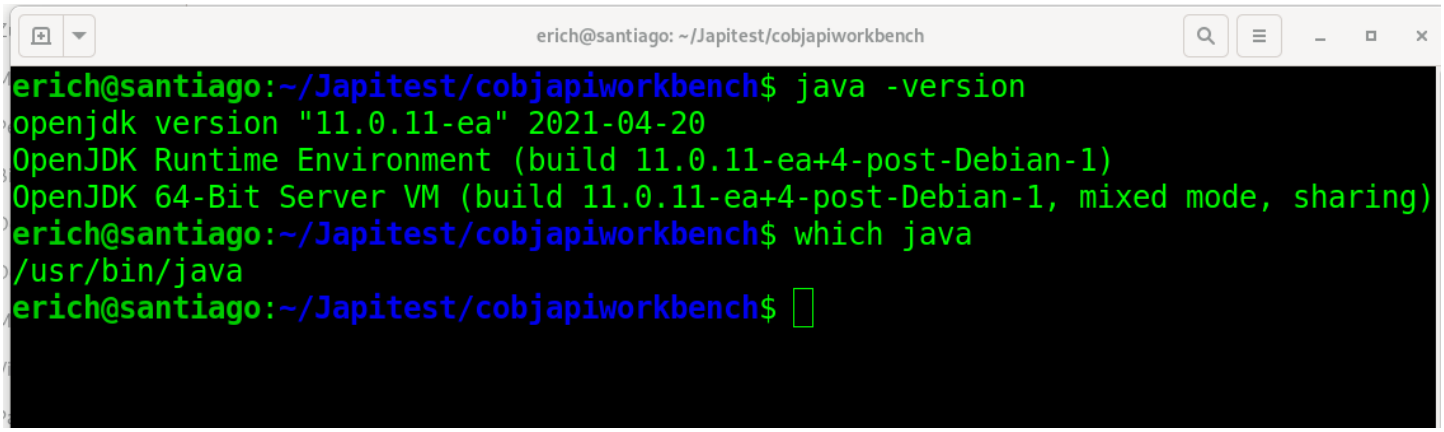
GnuCobol with Japi
How it works and how to install Japi2

Japi needs a java runtime environment so you need java on your System preferably OpenJDK more than Oracles Version.
Check if it is already installed – if not there is plenty of help in the net.



Japi needs some settings there are several ways to do that
In this case we use the hidden file **.bashrc** in the home directory and add 4 lines of code.

```
114
115 # GNUcobol and japi2
116
117
118
119 export JAVA_HOME=/usr/lib/jvm/java-11-openjdk-amd64
120 export COBJAPI_JAPIJAR_HOME=/home/erich/cobol/japi/SWING/src_java
121 export PATH=$JAVA_HOME:$PATH
122 export PATH=$PATH:/sbin
123
```

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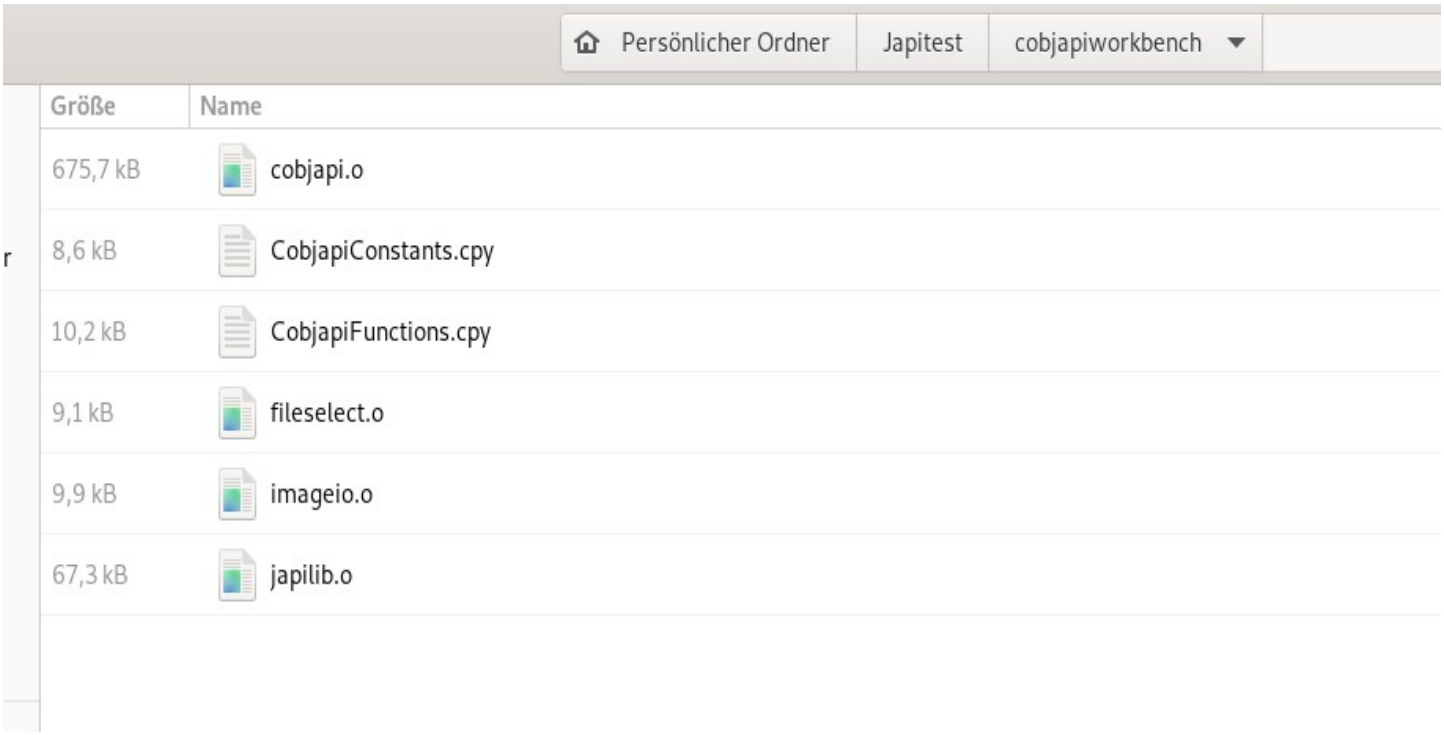
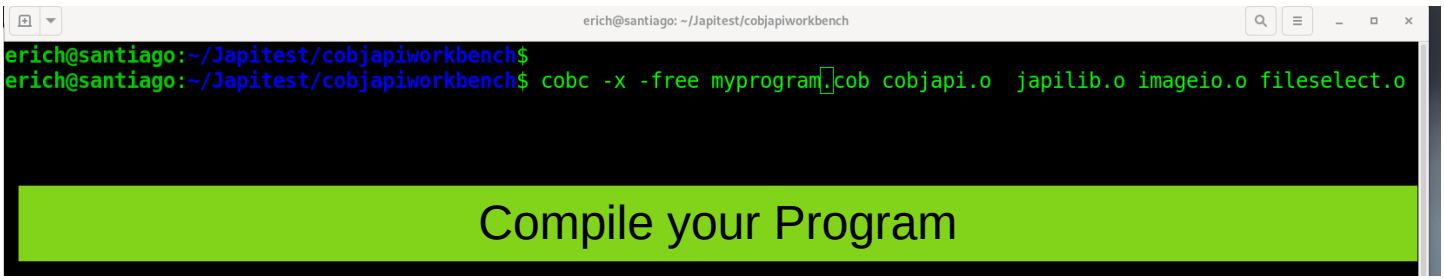


Put the tools you need on your workbench,
You find them in:

…. SWING/src_c and
…..SWING/src_cobol

Setting your PATHes would be another option



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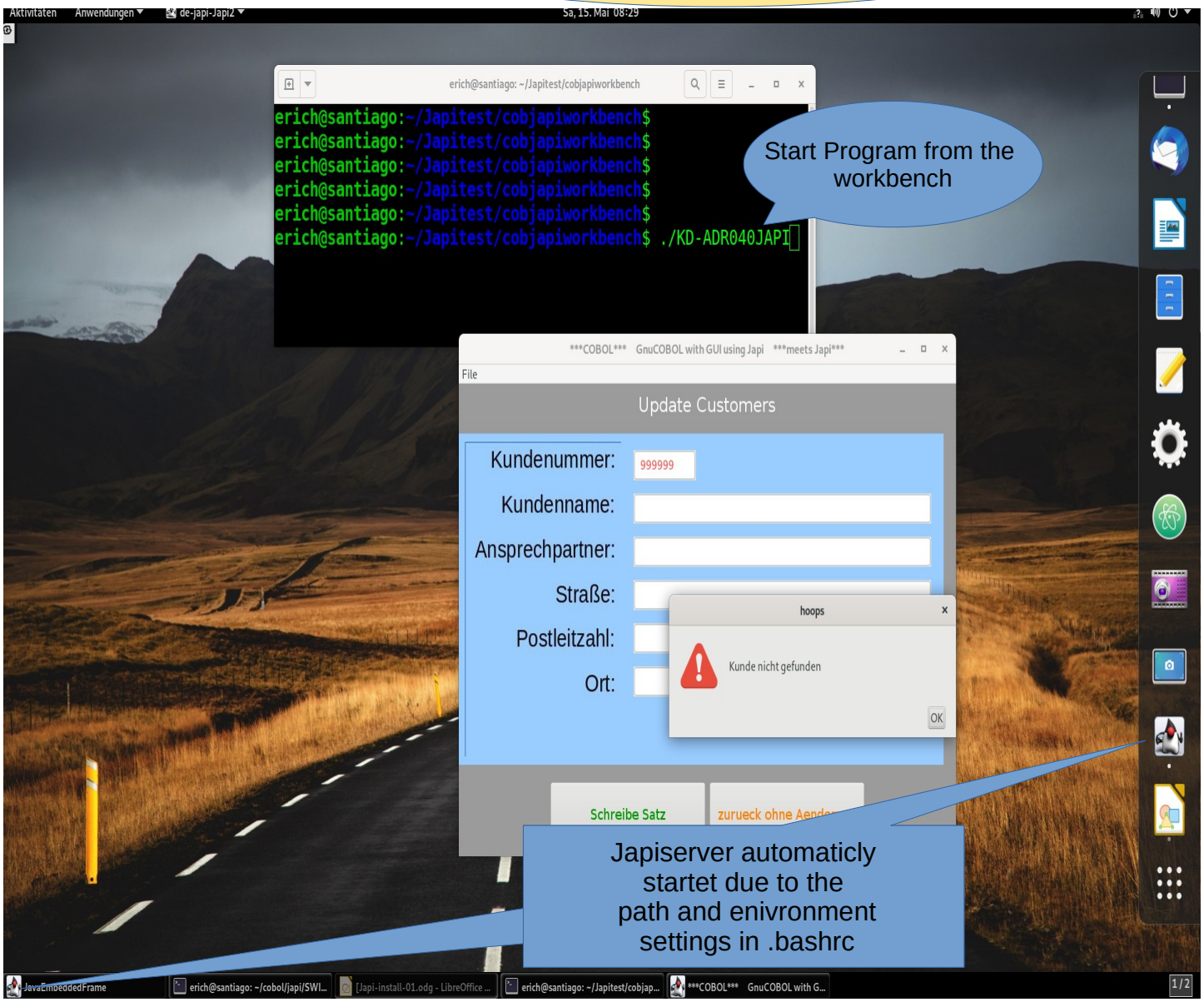
After having started your program your Gnome-desktop should look similar like that

Remember! here we talk about LINUX Debian 11



Your current Japi program

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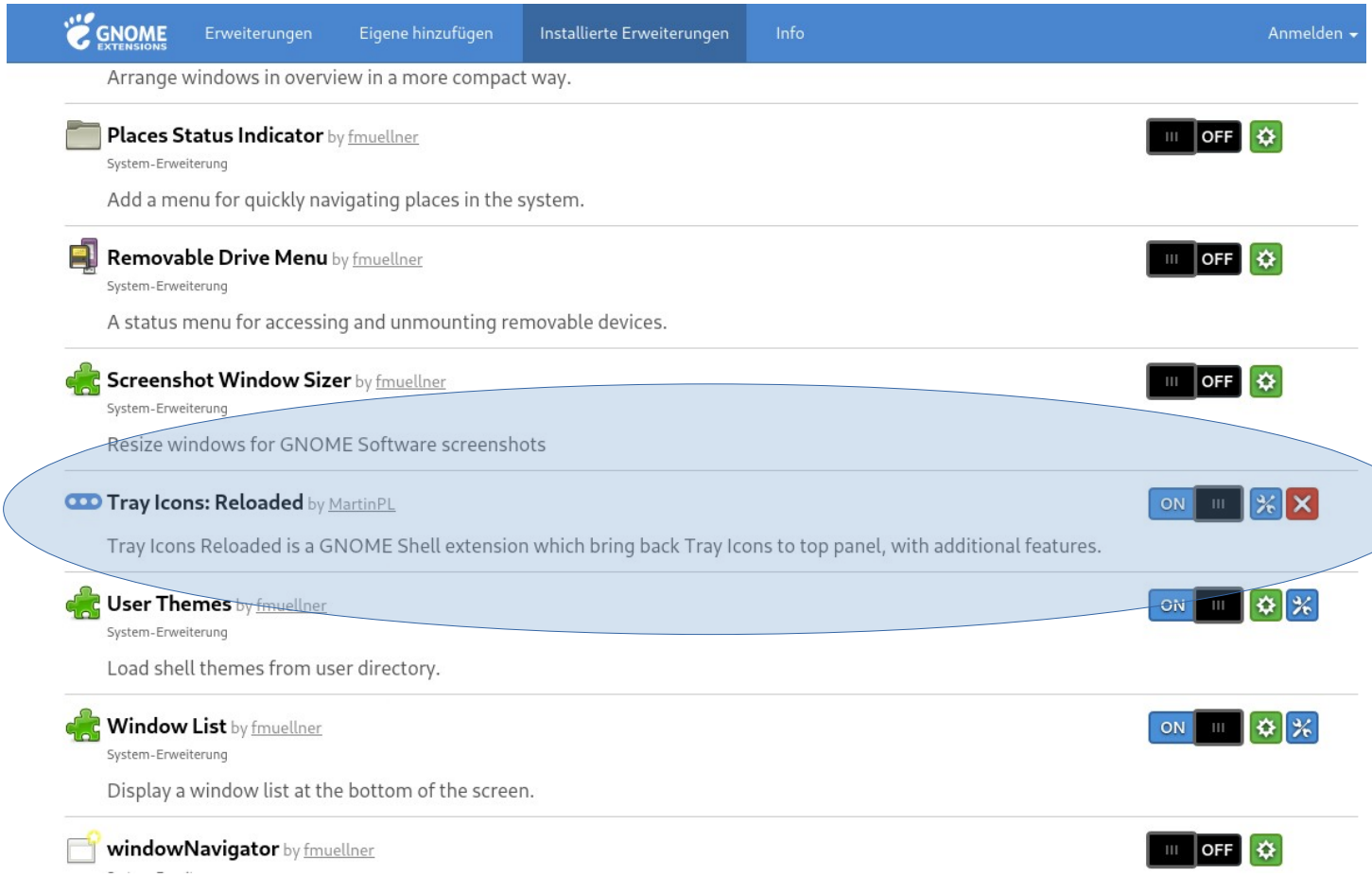
With newer gnome-versions you should install the gnome-extension „Tray Icons:Reloaded“ if you get a message ending a japi-program.



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Nerver forget the 4 modules running a compilation:

cobc -x -free myprog.cob
cobjapi.o japilib.o imageio.o fileselect.o

Maybe you would like to
have a look at the examples
before running tests with your
facelifted (Gnu)COBOL programs

With GnuCOBOL
and JAPI

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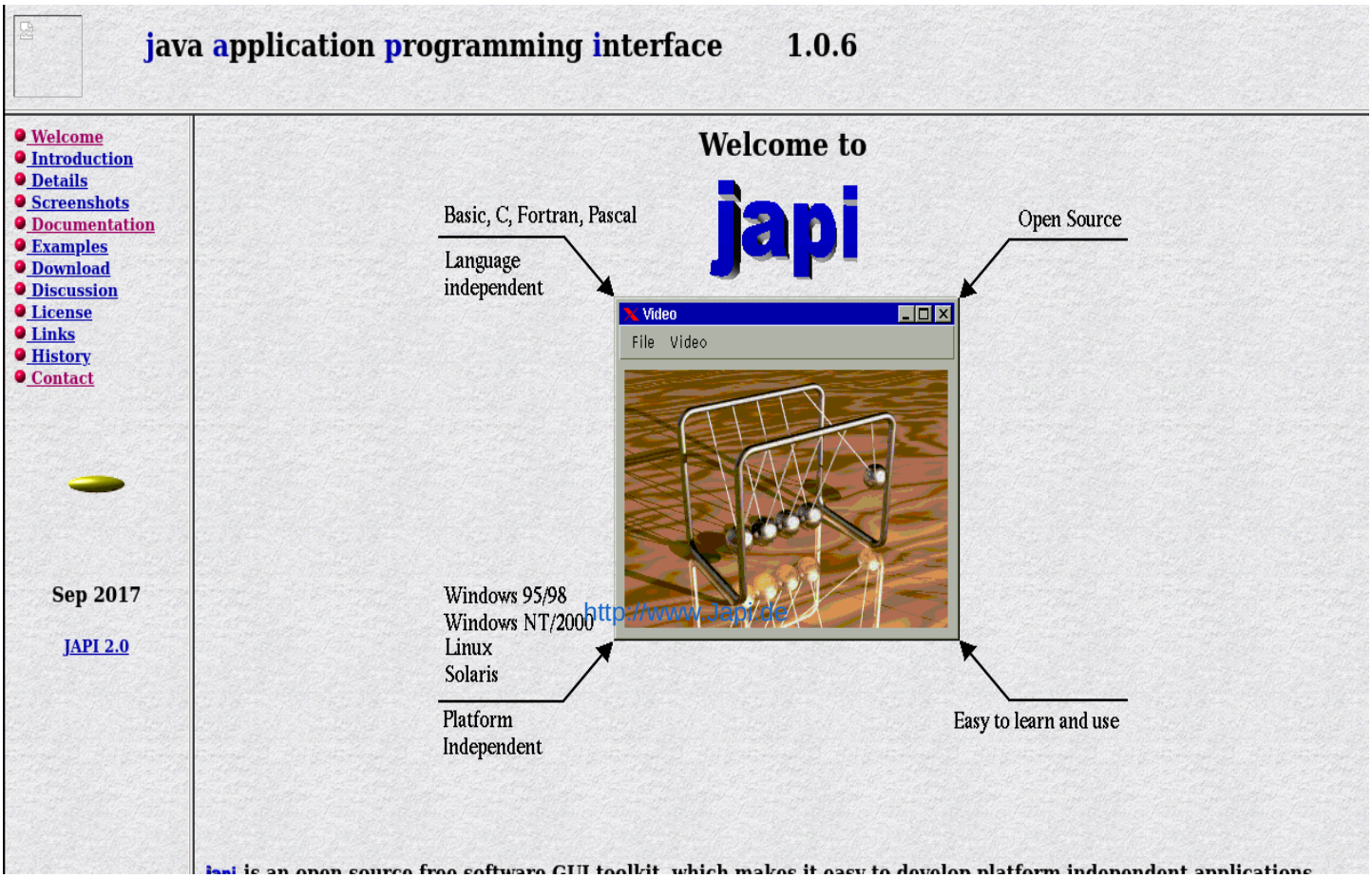
Under: http://www.Japi.de

There is more Information
and Documentation about
Japi



Of course

Japi is not as powerful as Tcl/Tk or Qt or other big GUIs and certainly has limits, but you can use GnuCOBOL commands and it is fast to learn and easy to use.

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