

# maXbox6

all about code blocks

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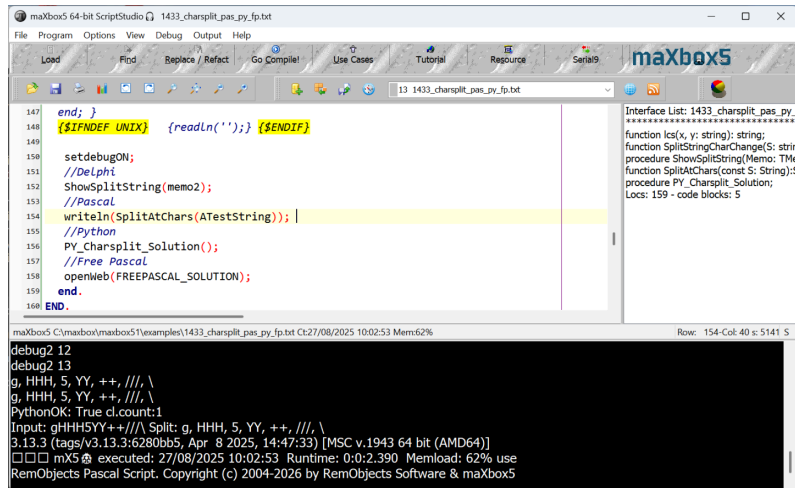
about



# maXbox

The Art of Coding: maXbox is a script tool engine, compiler and source lib all in one exe to design and code your scripts in a shellbook! Pure Code for Object Scripting. Principle is simplicity and reduce to the max.

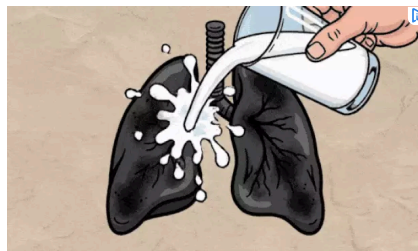
The App is "out of the box" (self containment) and needs no installation nor registration. It has a independent system architecture (ISA).



maXbox5

- Now 37721! functions /proc 4343 objects (3860 units)/class as a precompiled Virtual Machine with bytecode interpreter supports most of units:  
VCL,FCL,LCL,JCL,Systools,Indy,Inno,Synapse,TurboPower,AsyncPro, TeeChart,DMath,mX4,Jedi,KLib,CLX,ADO4,Orpheus,PCRE,Fundamentals,R SS+,WinInet2,P4D,CAI  
RegEx,LockBox,Kronos,ST,WMI,SimpleTCP,TFannNetwork,Cindy,Mathlab, Mapbox,...
- V 4.7.6.50 1415 examples & 145 tutorials online.
- V 5.1.6.98 as first beta release of 64bit-box  
unicode: <https://archive.org/details/maxbox5>
- V 5.2.9.198 beta5 release of 64bit-box  
unicode: <https://archive.org/details/maxbox5>
- Source compiled: 3'442'634 lines V 5.2.9.198– 3860 Units V5.2.9.198

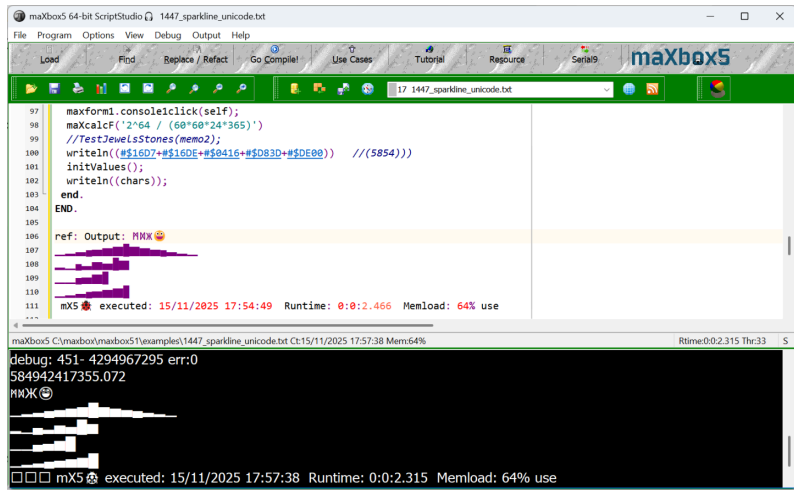
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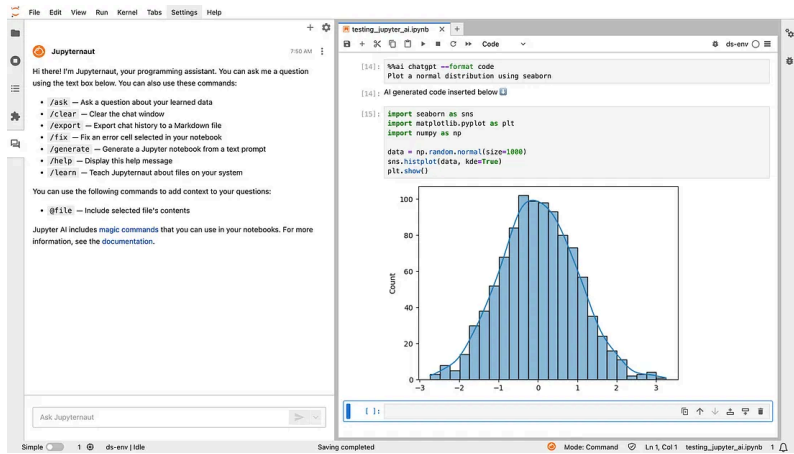
**Schleim in der Lunge ist ein Parasit, der an einem...**

Mounjaslim

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maXbox5 64-bit Unicode Python4Delphi



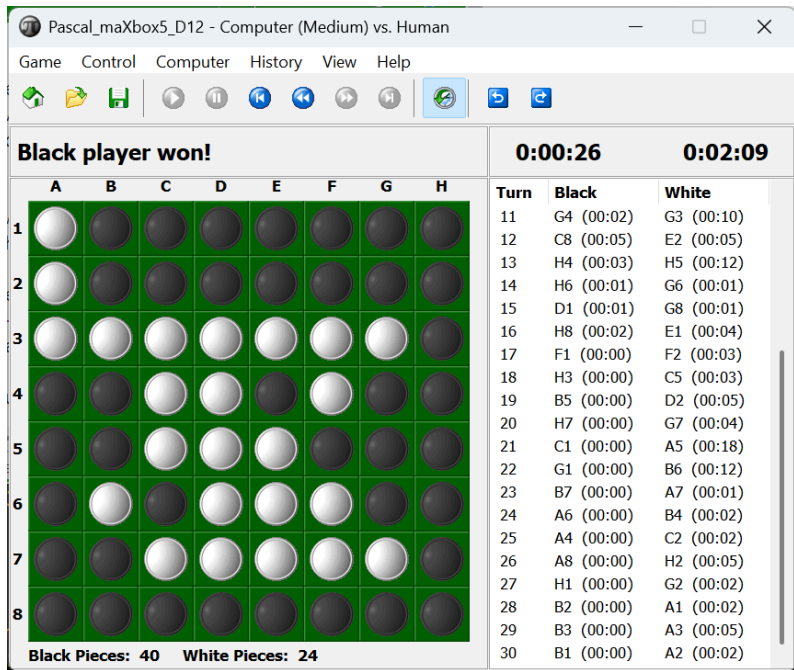
Jupyterlab and %ai magic command in Jupyter Lab

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As a Jupyter Notebook:

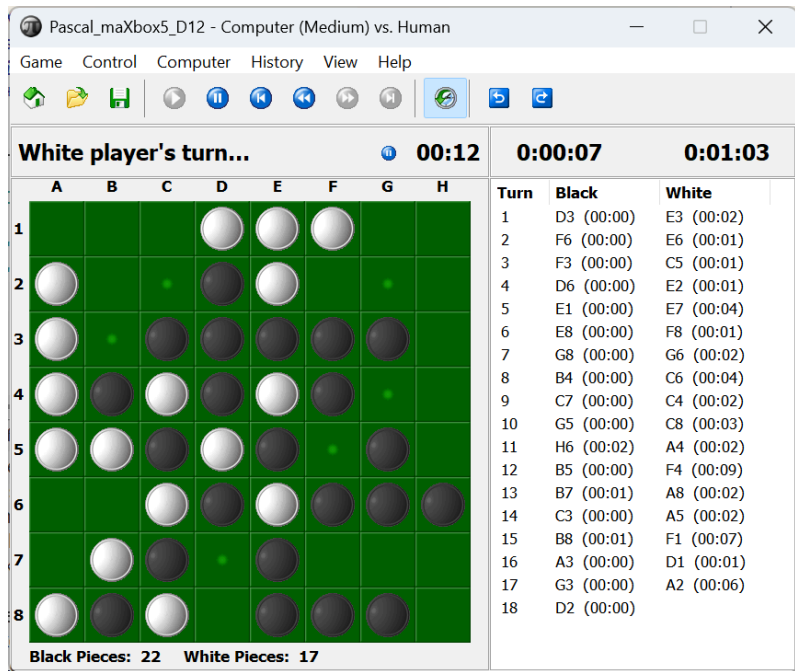
[maXbox5/machinelearningsteps.ipynb](https://github.com/maxkleiner/maXbox5/blob/main/maXbox5/machinelearningsteps.ipynb) at main · maxkleiner/maXbox5

### Games on maXbox5

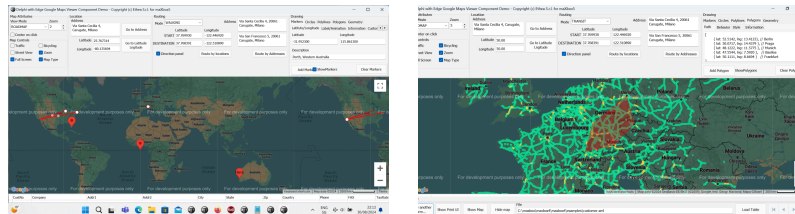


./Options/Add Ons/Reversi

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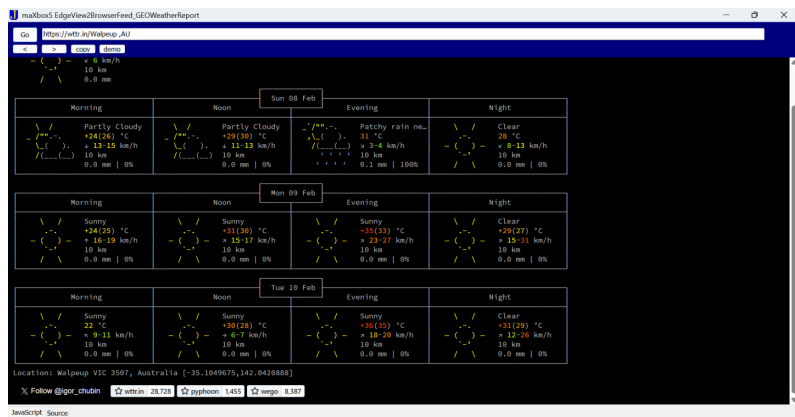


Othello runs with sound!



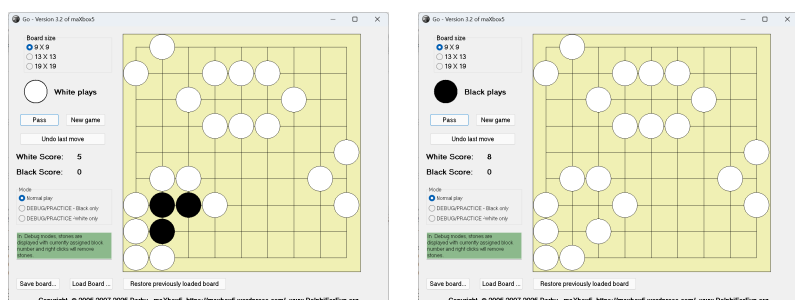
Geo Map View3

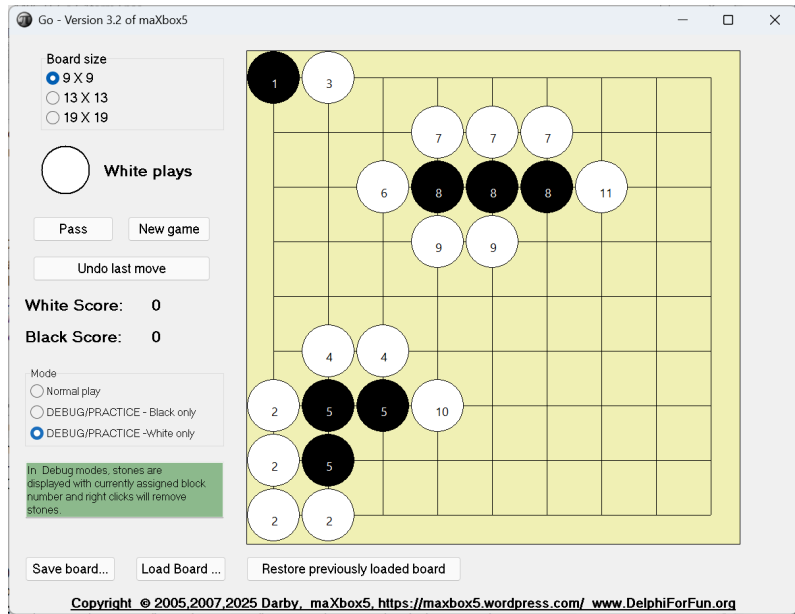
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Weatherapp and Forecast

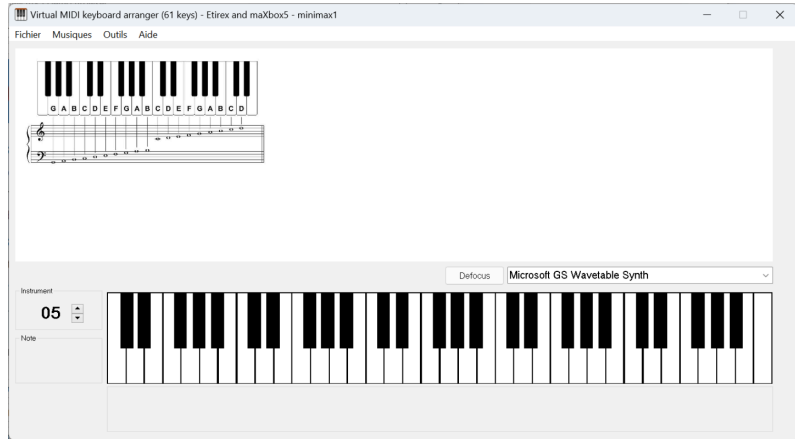
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Go Game Explained

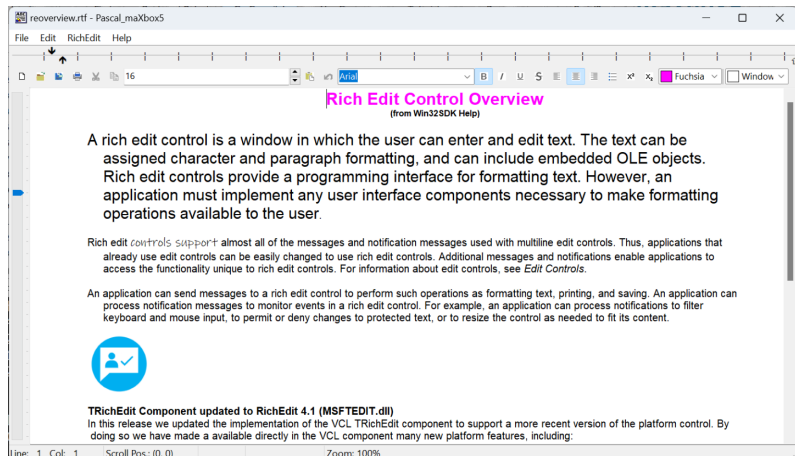
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Midi Mapper 5

For musicians and producers, the right MIDI controller can elevate your creativity and streamline your workflow.

Represents a RichEdit control which is a container for the rich-text document providing all the necessary functionality.



RichEdit Controls5

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```

Print Studio Center mX5
File
Unit StatsmodelsTutorial_163_164;
{https://rosettaacademy.org/wiki/SpinningRodAnimation/Text#Delphi , adapt to maXbox5
https://medium.com/@maxleiner1/statsmodels-for-python-and-delphi-8fcc898f782
This program may be used or modified for any non-commercial purpose
so long as this original notice remains in place.
All other rights are reserved - test script for embedding 3-X/ - not finished!
Library: SysUtils, StdCtrls, Throbber(c("🌀", "🌀", "🌀", "🌀", "🌀", "🌀", "🌀", "🌀", "🌀", "🌀"))}

var CA: array [0..3] of char; // = ('|', '/', '-', '\');

procedure SpinningRod(Memo: TMemo);
var I: integer;
    LastKey: char;
//const CA: array [0..3] of char = ('|', '/', '-', '\');
begin
    LastKey:=#0;
    For I:=0 to 100 do begin
        Memo.SetFocus;
        Memo.Lines.Clear;
        Memo.Lines.Add(' '+CA[I mod 4]+' - Press Any Key To Stop');
        writeln(itoa(getlastinput));
        lastkey:= intochar(getlastinput);
        //writeln(Lastkey);
        Sleep(250);
        //Lastkey:= intochar(getlastinput);
        //if (LastKey<>#0) or Application.Terminated then break;
        if (iskeypressed) or Application.Terminated then break;
        Application.ProcessMessages;
    end;
end;

```

Print Studio 5

Page Setup mX5

Margins & Options Header & Footer

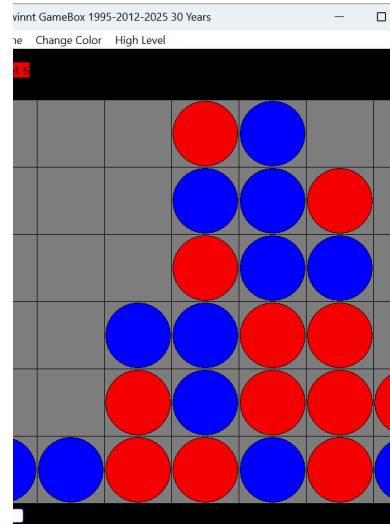
Units: mm

Left: 25  
Right: 15  
Top: 25  
Bottom: 20  
Gutter: 0  
Header: 20  
Footer: 15  
HFInternalMargin: 0.5  
LeftHFTextIndent: 2  
RightHFTextIndent: 2

Mirror margins  Syntax print  
 Line numbers  Use colors  
 Line numbers in margin  Wrap lines

OK Cancel

Print Studio 5 – Page Setup



Two classical games minesweeper & 4 gwintt

```

maXbox6\Source\PrintStudio5\bin\Debug\PrintStudio5.exe
1001 writeln('Button Create (from)');
1002 writeln('with (from de begin)');
1003 writeln('Caption: ' + 'StatsmodelsTutorial_163_164 (from)');
1004 writeln('Icon: LoadFormResourceName (Instance, ' + 'StatsmodelsTutorial_163_164 (from)');
1005 writeln('Position: pdcCenter');
1006 writeln('OnMouseDown: @pdcMouseDownLeft;');
1007 writeln('OnMouseMove: @pdcMouseMove;');
1008 writeln('OnMouseUp: @pdcMouseUp;');
1009 writeln('OnKeyPress: @pdcKeyPress;');
1010 writeln('ClientHeight: pform.height+10;');
1011 writeln('Show;');
1012 writeln('end;');
1013 writeln('with Button de begin;');

```

```

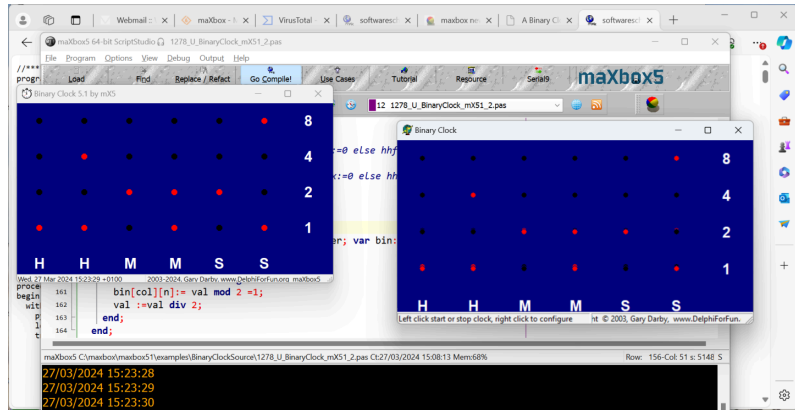
maXbox6\Source\PrintStudio5\bin\Debug\PrintStudio5.exe
1001 writeln('Button Create (from)');
1002 writeln('with (from de begin)');
1003 writeln('Caption: ' + 'StatsmodelsTutorial_163_164 (from)');
1004 writeln('Icon: LoadFormResourceName (Instance, ' + 'StatsmodelsTutorial_163_164 (from)');
1005 writeln('Position: pdcCenter');
1006 writeln('OnMouseDown: @pdcMouseDownLeft;');
1007 writeln('OnMouseMove: @pdcMouseMove;');
1008 writeln('OnMouseUp: @pdcMouseUp;');
1009 writeln('OnKeyPress: @pdcKeyPress;');
1010 writeln('ClientHeight: pform.height+10;');
1011 writeln('Show;');
1012 writeln('end;');
1013 writeln('with Button de begin;');

```

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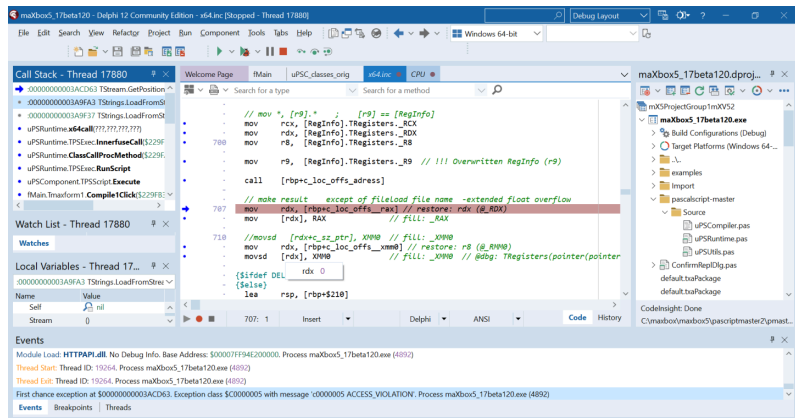
### maXbox Research

from time to time we are searching for a new time in between



Time comparison

OpenGTS® (“Open GPS Tracking System”) is the first available open source project designed specifically to provide web-based GPS tracking services for a “fleet” of vehicles.



debug on the run

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OpenGTS not only supports the data collection and storage of GPS Tracking and Telemetry data from remote devices, but also includes a rich set of features:

### Object Detection by maXbox



Keras integration with pretrained yolo-model

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The provided Delphi code snippet uses the Python4Delphi library, specifically the TPythonEngine component, to embed Python code execution into a Delphi application. It creates an instance of TPythonEngine and uses it to run a sequence of Python commands that implement a machine learning workflow with the iris dataset using popular Python libraries like pandas, matplotlib, scikit-learn, and seaborn. With maXbox you can think out of the box.

```

maXbox5 64-bit ScriptStudio 1452_machinelearningsteps2python12.pas
File Program Options View Debug Output Help
Load Find Replace / Refact Go Compile! Use Cases
13 1452_machinelearningsteps2python12.pas
161 procedure PY_Machinelearning_steps;
162 begin
163   with TPythonEngine.Create(nil) do begin
164     //pythonhome:= 'C:\Users\User\AppData\Local\Programs\Python\Python314\';
165     try
166       loadDLL;
167       autofinalize:= false;
168       ExecStr('import pandas as pd, io, sys'+lf+
169         'import matplotlib.pyplot as plt');
170       execstr('from sklearn.model_selection import train_test_split'+lf+
171         'from sklearn.ensemble import RandomForestClassifier'+lf+
172         'from sklearn import datasets'+lf+
173         'from sklearn.metrics import accuracy_score'+lf+
174         'from sklearn.metrics import confusion_matrix');
175       execstr('output = io.StringIO(); sys.stdout = output');

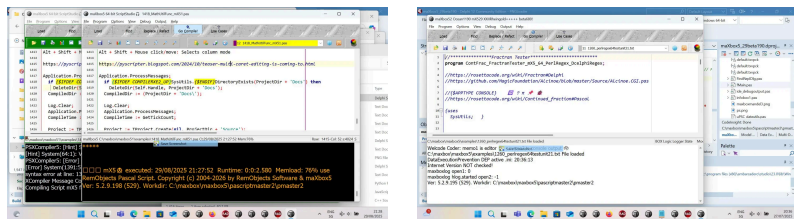
```

```

maXbox5 C:\maxbox\maxbox5\examples\1452_machinelearningsteps2python12.pas Ct26/11/2025 14:03:24 Mem:66% Rtime:0:05.1 Thr:36
Intercept (b): 1.49. Slope (a): 0.75
Classify accuracy: 0.933333333333333
Precision, Recall, Confusion matrix: in testing
precision recall f1-score support
0 1.000 1.000 1.000 25
1 0.833 1.000 0.909 25
2 1.000 0.800 0.882 25
accuracy 0.944 0.933 0.933 75
macro avg 0.944 0.933 0.933 75
weighted avg 0.944 0.933 0.933 75
mX5 executed: 26/11/2025 14:03:26 Runtime: 0:05.1 Memload: 66% use
RemObjects Pascal Script. Copyright (c) 2004-2026 by RemObjects Software & maXbox5

```

Download 1452\_machinelearningsteps2python12.pas (maXbox5)



mX52 Development

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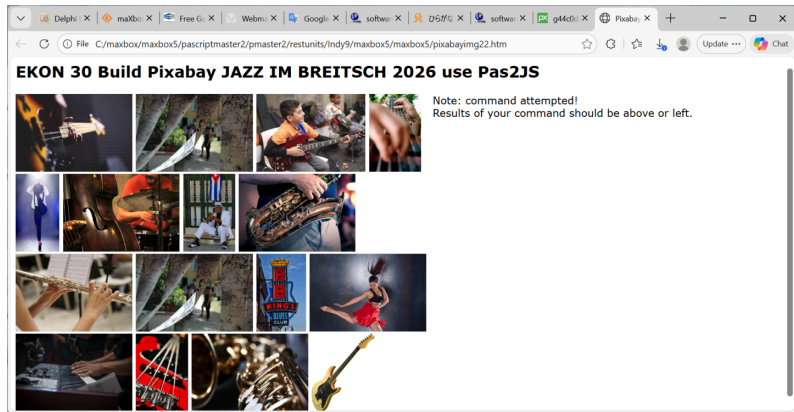
```

22 function GetHighlighterFromFileExt (AHighlighters: TStringList;
23 Extension: string): TSyncCustomHighlighter;
24
25 var
26   ExtLen: integer;
27   i, j: integer;
28   Highlighter: TSyncCustomHighlighter;
29   Filter: string;
30
31 begin
32   Extension := LowerCase(Extension);
33   ExtLen := Length(Extension);
34   if assigned(AHighlighters) and (ExtLen > 0) then begin
35     for i := 0 to AHighlighters.Count - 1 do begin
36       if not (AHighlighters.Objects[i] is TSyncCustomHighlighter) then
37         continue;
38       Highlighter := TSyncCustomHighlighter(AHighlighters.Objects[i]);
39       Filter := LowerCase(Highlighter.DefaultFilter);
40       j := Pos('!', Filter);
41       if j > 0 then begin
42         Delete(Filter, 1, j);
43         if (j > 0) and
44            ((j + ExtLen > Length(Filter)) or (Filter[j + ExtLen] = ','))
45       then begin
46         Result := Highlighter;
47         exit;
48       end;
49     end;
50 end;
51 Result := nil;
52 end;
53 // '

```

SynEdit EUpdates

## Pas2JS Transpiler



Pas2JS HTML Builder

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```

458 srlist:= FindAllFiles(pathpdfmentor, '*+Auftrag+*.pdf', true);
459 for it:= 0 to srlist.count-1 do begin
460   writeln((srlist.strings[it]));
461   tmpfilename := extractfilename(srlist.strings[it]);
462   IF AnsiPos('_LS_', tmpfilename) > 0 THEN BEGIN
463     tmpfilename := '_LS_' + tmpfilename2;
464   end else begin
465     if AnsiPos('_RG_', tmpfilename) > 0 THEN BEGIN
466       tmpfilename := '_RG_' + tmpfilename2;
467     END ELSE BEGIN
468       tmpfilename := '_ES_' + tmpfilename2;
469     END;
470   end;

```

maXbox5 C:\maxbox\maxbox5\mentor2024\maxbox4\advance\maxbox4\WER\WER\_0a\_1\_ScriptMentorToPostLogistics.txt Ct:24/11/2025 20:53:19 Mer Row: 586-Col: 35 s:2262 S

maXbox5 WER\_0a\_1\_ScriptMentorToPostLogistics.txt Compiled done: 24/11/2025 20:53:19

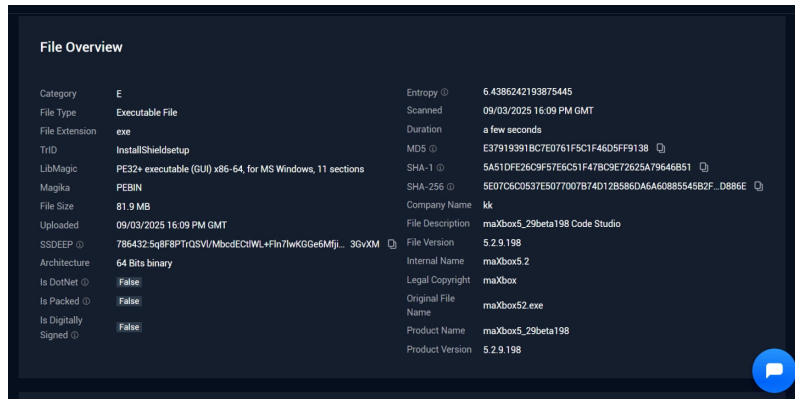
pathandfilenormallog:  
24/11/2025 20:53:19 -----

pathandfilenormallog:  
24/11/2025 20:53:19 WER Export started

Exception: Invalid class string, ProgID: "WinSCP.SessionOptions" at 906.117  
RemObjects Pascal Script. Copyright (c) 2004-2026 by RemObjects Software & maXbox5

Postlogistics WER

Download maXbox5 Release on [Github](#) also Assets and Project Sources.

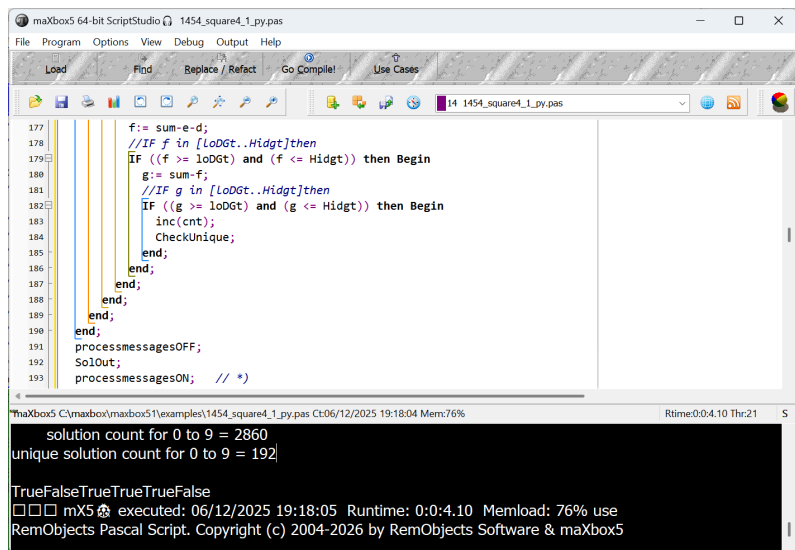


V 5.2.9.198

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<p><b>Optimization</b></p> <p><b>Common:</b></p> <ul style="list-style-type: none"> <li>- Fake/dfs</li> <li>- DP/greedy/bf</li> <li>- Binary Search/TS</li> <li>- Branch &amp; Bound</li> <li>- RMQ/LCA</li> <li>- Line sweep</li> <li>- AlgoX</li> </ul> <p><b>Minimization</b></p> <ul style="list-style-type: none"> <li>- MCMF</li> <li>- Min cut / vertex</li> <li>- MST / Dijkstra</li> <li>- Chull / mec</li> </ul> <p><b>Maximization</b></p> <ul style="list-style-type: none"> <li>- Max flow / MCMF</li> <li>- Max Independent Set</li> <li>- Kruskal Reverse</li> <li>- LIS/GCD</li> </ul>	<p><b>DP</b></p> <p><b>General</b></p> <ul style="list-style-type: none"> <li>- State representation(s)</li> <li>- Diff sub-states calls?</li> <li>-- move to state</li> <li>- Cycles?</li> <li>-- Depth?</li> <li>-- Dijkstra / Bfs</li> <li>-- Dec(rement)-inc-dec</li> </ul> <p><b>Types</b></p> <ul style="list-style-type: none"> <li>- Restricted / Range</li> <li>- Counting</li> <li>- Tree / Partitioning</li> <li>- Extending table</li> </ul> <p><b>Concerns</b></p> <ul style="list-style-type: none"> <li>- Base case order</li> <li>- Search space?</li> <li>-- Constrained pars</li> <li>- Redundant pars</li> </ul> <p><b>States</b></p> <ul style="list-style-type: none"> <li>- Canonical states?</li> <li>- Local Minima</li> <li>- Small substates cnt?</li> <li>- Large pars</li> <li>- Reduces fast? (e.g. /)</li> </ul> <p><b>Counting Problems</b></p> <ul style="list-style-type: none"> <li>- DP</li> <li>- Combinations / Perms</li> <li>- Inclusion-exclusion</li> <li>- Graph Power</li> </ul>	<p><b>Data Structures</b></p> <ul style="list-style-type: none"> <li>- Set/Heap /DisjointSets</li> <li>- BIT</li> <li>- Segmentation Tree</li> <li>- Treab, KDT</li> <li>- LCA/RMQ</li> <li>- Hashing</li> <li>- Interval Compression</li> <li>- Quad Tree</li> </ul> <p><b>Graph Algorithms</b></p> <ul style="list-style-type: none"> <li>- MST: Kruskal / Prime</li> <li>- Dijkstra / Topological</li> <li>- Convex Hull / Floyd</li> <li>- Max Flow/Min Cut</li> <li>- Max Matching</li> <li>- Max Indep Set</li> <li>- Min path/vertex cover</li> <li>- Bellman / DConsts</li> <li>- Euler/Postman</li> </ul> <p><b>String Algorithms</b></p> <ul style="list-style-type: none"> <li>- Trie</li> <li>- Permutation Cycles</li> <li>- LIS / LCS</li> <li>- Polynomial Hashing</li> <li>- KMP / Aho Corasick</li> <li>- Suffix tree/array</li> </ul>	<p><b>Mathematics</b></p> <ul style="list-style-type: none"> <li>- GCD/LCM/Phi/Mob</li> <li>- NIM/Grundy/Chinese</li> <li>- Seive/Factorization</li> <li>- System of Linear Eqs</li> <li>- Determinant</li> <li>- Simplex/ Pick's Theo</li> <li>- Numerical Integration</li> <li>- Matrix Power</li> <li>- Closed Form</li> <li>- Pigeon Hole</li> <li>- Triangle inequality</li> <li>- Voronoi diagram</li> </ul> <p><b>Adhock Algorithms</b></p> <ul style="list-style-type: none"> <li>- Greedy</li> <li>- Line Sweep</li> <li>- Sliding Window</li> <li>- Canonical Form</li> <li>- Grid Compression</li> <li>- Constructive algos</li> <li>- Test cases driven</li> <li>- Randomization</li> <li>- Time cut-off</li> <li>- Stress Test &amp; Observe</li> </ul> <p><b>Decision Algorithms</b></p> <ul style="list-style-type: none"> <li>- 2SAT</li> <li>- Difference constraints</li> <li>- Grundy</li> <li>- Bipartite?</li> </ul>
--	---	---	---

Algorithms on maXbox5



Example 1454:

[https://sourceforge.net/projects/maxbox5/files/examples/1454\\_square4\\_1\\_pas/download](https://sourceforge.net/projects/maxbox5/files/examples/1454_square4_1_pas/download)

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```

C:\Windows\System32\cmd.exe
[notice] A new release of pip is available: 25.2 -> 25.3
[notice] To update, run: C:\Users\User\AppData\Local\Programs\Python\Python314\python.exe -m pip install --upgrade pip
C:\maxbox\maxbox5\pascripmaster2\pmaster2\restunits\Indy9\maxbox5\maxbox5>py -0
-V:3.15 * Python 3.15 (64-bit)
-V:3.14 Python 3.14 (64-bit)
-V:3.13 Python 3.13 (64-bit)
-V:3.12 Python 3.12 (64-bit)
-V:3.11 Python 3.11 (64-bit)
-V:3.11-32 Python 3.11 (32-bit)
-V:3.10-32 Python 3.10 (32-bit)
-V:3.8 Python 3.8 (64-bit)
C:\maxbox\maxbox5\pascripmaster2\pmaster2\restunits\Indy9\maxbox5\maxbox5>py -3.14 -m pip install requests
Requirement already satisfied: requests in c:\users\user\appdata\local\programs\python\python314\lib\site-packages (2.32.0)
Requirement already satisfied: charset-normalizer<4,>=2 in c:\users\user\appdata\local\programs\python\python314\lib\site-packages (from requests) (3.4.4)
Requirement already satisfied: idna<4,>=2.5 in c:\users\user\appdata\local\programs\python\python314\lib\site-packages (from requests) (3.11)
Requirement already satisfied: urllib3<3,>=1.21.1 in c:\users\user\appdata\local\programs\python\python314\lib\site-packages (from requests) (2.6.2)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\user\appdata\local\programs\python\python314\lib\site-packages (from requests) (2025.11.12)
[notice] A new release of pip is available: 25.2 -> 25.3
[notice] To update, run: C:\Users\User\AppData\Local\Programs\Python\Python314\python.exe -m pip install --upgrade pip
C:\maxbox\maxbox5\pascripmaster2\pmaster2\restunits\Indy9\maxbox5\maxbox5>

```

py -3.14 -m pip install requests

## 10. Time Series Analysis (ARIMA)

ARIMA (AutoRegressive Integrated Moving Average) remains the workhorse of time-based forecasting. It models trends, seasonality, and noise in historical data to project future values.

```

with TPythonEngine.Create(Nil) do begin
  autofinalize:= false;
  loadDLL;
  try
    ExecString('import sys,re,io, itertools, math, requests');
    ExecString('import numpy as np');
    ExecString('import pandas as pd');
    ExecString('from statsmodels.tsa.arima.model import ARIMA');
    ExecString('from pmdarima import auto_arima; from io import StringIO');
    //ExecString(PYWRITE);
    execstr('output = io.StringIO(); sys.stdout = output');
    //execstr('sdata = "https://github.com/urgedata/pythondata/blob/master/examples/retail_sales.csv"');
    execstr('sdata="https://raw.githubusercontent.com/urgedata/pythondata/refs/heads/master/examples/reta');
    execstr('# Sales Sample data '+lf+
            //If URL returns HTML or needs headers, fetch content first:
            'f = requests.get(sdata)+'lf+

```

coef	std err	z	P> z	[0.025	0.975]	
ar.L1	-0.1347	0.049	-3.806	0.000	-0.280	-0.090
sigma2	1.21e+09	3.29e-12	3.68e+20	0.000	1.21e+09	1.21e+09

```

Ljung-Box (L1) (Q):      4.71  Jarque-Bera (JB):      4.67
Prob(Q):                0.43  Prob(JB):         0.19
Heteroskedasticity (H): 1.11  Skew:             -0.56
Prob(H) (two-sided):    0.80  Kurtosis:         3.58

```

[https://sourceforge.net/projects/maxbox5/files/examples/1456\\_forecasting2python2\\_64.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1456_forecasting2python2_64.txt/download)

```

1  procedure PY_Solution_ARIMA;
2  begin
3    with TPythonEngine.Create(Nil) do begin
4      autofinalize:= false;
5      loadDLL;
6      try
7        ExecString('import sys,re,io, itertools, math, requests
8        ExecString('import numpy as np');
9        ExecString('import pandas as pd');
10       ExecString('from statsmodels.tsa.arima.model import ARI
11       ExecString('from pmdarima import auto_arima; from io im
12       //ExecString(PYWRITE);
13       execstr('output = io.StringIO(); sys.stdout = output');
14       //execstr('sdata = "https://github.com/urgedata/pythond
15       execstr('sdata="https://raw.githubusercontent.com/urged
16       execstr('# Sales Sample data '+lf+
17           //If URL returns HTML or needs headers, fetch c
18       'f = requests.get(sdata)+'lf+
19       'print(f)+'lf+
20       '# Convert text to file-like object '+lf+
21       'data= pd.read_csv(StringIO(f.text),parse_dates
22       'print(data.head)+'lf+
23       '# Auto-select best (p,d,q) parameters'+lf+
24       'auto_model = auto_arima(data["sales"], seasona
25       'print(auto_model.summary())');
26       //# # Fit final ARIMA model
27       execstr('model = ARIMA(data["sales"], order=auto_model.
28       'fit = model.fit());

```

```
29     ///  
30     ExecStr('forecast = fit.forecast(steps=6)' +lf+  
31           'print(forecast)');  
32     println(StringReplace(evalstr('(output.getvalue()).strip  
33                               LF,CRLF,[rfReplace  
34     except  
35         raiseError;  
36     finally  
37         unloadDll;  
38         Free;  
39     end;  
40     end;  
41     end;
```

## 11. FTP UNIX List Access

With `IdFTP`, the server i'm connecting to is not using UTF-8, but ANSI. There's nothing special about my code, i simply set `Host`, `Username`, `Password` and `Connect` to server. Then i call `List` method with no parameters. Iterating through `DirectoryListing` gives me incorrect results for file names.



```

1  procedure _OnAfterClientLogin(sender: TObject) ;
2  //var FTPListItems: TIdFTPListItem;
3  begin
4  {echo} writ('on after client login sender AStatusTextobj:
5  end;
6
7  procedure OnStatus (ASender: TObject; const AStatusText: str
8  begin
9  {echo} writ(AStatusText);
10 end;
11
12 const  CHOST = 'ftp.suse.de';
13        CUSER = 'anonymous'; //';
14        CPASSWORD = '__'; //'; //}
15
16 procedure testftp_LIST;
17 var ftp: TIdFTP;
18     sStatus: TStrings;
19     i: integer;
20 begin
21     ftp:= TIdFTP.Create(self);
22     sStatus:= TStringList.create;
23     //ftp.onconnect := @OnStatus;
24     try
25         ftp.OnAfterClientLogin:= @_OnAfterClientLogin;
26         //ftp.OnCreateFTPList
27         ftp.Host:= CHOST;//'94.73.148.47';
28         ftp.Port:=21;
29         ftp.Username := CUSER; //'root';
30         //ftp.Password := CPASSWORD; //'test';
31         ftp.Connect(true, 1200);
32         ftp.Passive:= true;
33         //ftp.TransferType := ftBinary;
34         //ftp.Login; //Can't change from guest user.
35 //RegisterMethod('Procedure List(ADest:TStrings; const ASpeci
36
37         ftp.ChangeDir('../pub/people/');
38         sleep(600)
39         ftp.List(sstatus, '*', false);
40         writ('res1: '+sstatus.text)
41         //writ('res2: '+ftp.DirectoryListing.text)
42         //var i: integer;
43         writ('rescount: '+itoa(ftp.listresult.count));
44         for i:= 0 to ftp.ListResult.Count -1 do
45             writ(ftp.ListResult[i]);
46     finally
47         sstatus.free;
48         ftp.Quit; //Disconnect;
49         ftp.free;
50     end;
51 end;
52
53 begin // @main
54     maxform1.setconsole;
55     assert2(DateTimeToUnixTime(EncodeDate(1970,1,1))=0, 'DateTi
56     assert2(UnixTimeToDateTime(0)=EncodeDate(1970,1,1), 'UnixTi
57     testftp_LIST();
58 end.

```

- debug: 435- 4294967295 err:0
- True Assert Log: DateTimeToUnixTime mX4 Assertion: 05/01/2026 15:03:11
- True Assert Log: UnixTimeToDateTime mX4 Assertion: 05/01/2026 15:03:11
- debug: 436- 4294967295 err:0
- on after client login sender AStatusTextobj: TIdFTP@8E47A910
- res1:
- rescount: 104
- drwxr-xr-x 2 ftp ftp 4096 May 14 2010 adrian
- drwxr-xr-x 2 ftp ftp 4096 Sep 03 2019 aherrmann
- drwxr-xr-x 3 ftp ftp 4096 Jul 22 2008 aj
- drwxr-xr-x 2 ftp ftp 4096 Oct 21 2014 amach
- drwxr-xr-x 2 ftp ftp 4096 Sep 17 2015 aosthof
- drwxr-xr-x 2 ftp ftp 4096 Sep 09 2011 axels

- drwxr-xr-x 2 ftp ftp 4096 Feb 15 2018 bjin
- drwxr-xr-x 2 ftp ftp 4096 Apr 28 2009 blotz
- drwxr-xr-x 5 ftp ftp 4096 Nov 23 2005 bwhiteley
- drwxr-xr-x 4 ftp ftp 4096 Nov 04 2022 bwiedemann
- drwxr-xr-x 8 ftp ftp 4096 Aug 06 2007 cihlarov
- drwxr-xr-x 3 ftp ftp 4096 Jan 20 2009 ckornacker
- drwxr-xr-x 2 ftp ftp 4096 Apr 03 2020 clin
- drwxr-xr-x 4 ftp ftp 4096 Aug 14 2016 colyli
- drwxr-xr-x 2 ftp ftp 4096 Apr 23 2009 coolo

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[Index of /pub/people/](#)

```

110 writ(ftp.ListResult[i]);
111 finally
112     sstatus.free;
113     ftp.Quit; //Disconnect;
114     ftp.free;
115 end;
116 end;
117
118
119 begin //main
120     maxform1.setconsole;
121     assert2(DateTimeToUnixTime(EncodeDate(1970,1,1))=0,'DateTimeToUnixTime');
122     assert2(UnixTimeToDateTime(0)=EncodeDate(1970,1,1),'UnixTimeToDateTime');
123     testftp_LIST();
124 end.
125 end.

```

```

maxXbox5 C:\maxbox\maxbox5\examples\1458_FTP_Anonymous.pas 05/01/2026 15:13:23 Mem:64% Runtime:0:04:23 Thr:5
drwxr-xr-x 2 ftp ftp 4096 May 31 2016 vczek
drwxr-xr-x 2 ftp ftp 4096 Nov 30 2012 vdziewiecki
drwxr-xr-x 9 ftp ftp 4096 Oct 15 2023 wengel
drwxr-xr-x 3 ftp ftp 4096 Feb 13 2008 werner
drwxr-xr-x 4 ftp ftp 4096 Dec 14 2007 wstephenson
drwxr-xr-x 4 ftp ftp 4096 Sep 02 2010 yxu
drwxr-xr-x 3 ftp ftp 4096 Mar 11 2010 zoz
□ □ mX5 @ executed: 05/01/2026 15:13:25 Runtime: 0:0:4.23 Memload: 64% use
RemObjects Pascal Script. Copyright (c) 2004-2026 by RemObjects Software & maXbox5

```

[https://sourceforge.net/projects/maxbox5/files/examples/1458\\_FTP\\_Anonymous.pas/download](https://sourceforge.net/projects/maxbox5/files/examples/1458_FTP_Anonymous.pas/download)

## 12. Equation Solver

Pell's equation (also called the Pell–Fermat equation) is a [Diophantine equation](#) of the form:

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$$x^2 - ny^2 = 1$$

Task requirements

- find the smallest solution in positive integers to Pell's equation for  $n = \{61, 109, 181, 277\}$ .

```

1 procedure SolvePellPasBigInt( n : integer; out x, y : TInteger
2 var
3     m, a, c, d: integer;
4     p, q, p_next, q_next, p_prev, q_prev: TInteger;
5     evenNrSteps: boolean;
6 begin
7     if (n >= 0) then m:= Trunc(Sqrt( 1.0*n + 0.5)) // or use Ro
8         else m:= 0;
9     if n <= m*m then begin // if n is not a positive non-squ
10         x:= 1; y:= 0; exit; // return a trivial solution
11     end;
12     c:= m; d:= 1; a:= m;
13     p:= TInteger.create(1);
14     q:= TInteger.create(0);
15     p_prev:= TInteger.create(0);
16     q_prev:= TInteger.create(1);

```

```

17  evenNrSteps := true;
18  repeat
19    // Get next convergent p/q in the continued fraction for
20    p_next := TInteger.create(0);
21    q_next := TInteger.create(0);
22    //p_next := a*p + p_prev; //q_next := a*q + q_prev;
23    p_next.assign1(a); p_next.mult(p); p_next.add(p_prev);
24    q_next.assign1(a); q_next.mult(q); q_next.add(q_prev);
25
26    //p_prev := p; p := p_next;
27    //q_prev := q; q := q_next;
28    p_prev.assign(p); p.assign(p_next);
29    q_prev.assign(q); q.assign(q_next);
30
31    // Get the next term a in the continued fraction for sqrt
32    synAssert((n - c*c) mod d = 0); // optional sanity check
33    d := (n - c*c) div d;
34    a := (m + c) div d;
35    c := a*d - c;
36    evenNrSteps := not evenNrSteps;  (**)
37  until (c = m) and (d = 1);
38  {
39  If first return to (c,d) = (m,1) occurs after an even numbe
40  then p^2 - n*q^2 = 1, and there is no solution to x^2 - n
41  Else p^2 - n*q^2 = -1, and to get a solution to x^2 - n*y^2
42  either continue until we return to (c,d) = (m,1) for the
43  or use the short cut below.
44  }
45  if evenNrSteps then begin
46    //x := p; y := q;
47    x.assign(p); y.assign(q);
48  end else begin
49    //x := 2*p*p + 1; y := 2*p*q
50    x.assign1(2); x.mult(p); x.mult(p); x.add1(1);
51    y.assign1(2); y.mult(p); y.mult(q);
52  end;
53  p.free; q.free; p_prev.free; q_prev.free;
54  p_next.free; q_next.free;
55  end;

```

The screenshot shows the ScriptStudio IDE window titled "maXbox5 64-bit ScriptStudio 1459\_Pells\_equation1.pas". The code editor displays the Pascal code from the previous block, with line numbers 743 to 758. The code includes comments and function calls like `TestStringList()`, `testftp_LIST()`, `Solvepells()`, `ShowPellSolution(61)`, `ShowPellSolution(109)`, `ShowPellSolutionBigInt(61)`, `ShowPellSolutionBigInt(109)`, `ShowPellSolutionBigInt(181)`, `ShowPellSolutionBigInt(277)`, and `TestBigShiftLeft()`. The output window at the bottom shows the execution results:

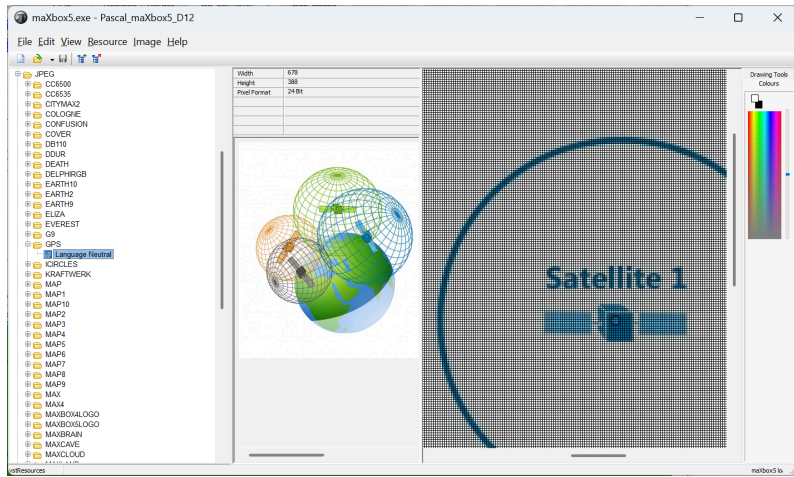
```

delphi,maXbox,pascal,programming
forma: n = 61 --> (1766319049, 226153980)
lineout: n = 61 --> (1766319049, 226153980)
lineout: n = 109 --> (158070671986249, 15140424455100)
lineout: n = 181 --> (2469645423824185801, 183567298683461940)
lineout: n = 277 --> (159150073798980475849, 9562401173878027020)
□□ mX5 executed: 09/01/2026 17:21:46 Runtime: 0:0:2.315 Memload: 55% use
RemObjects Pascal Script. Copyright (c) 2004-2026 by RemObjects Software & maXbox5

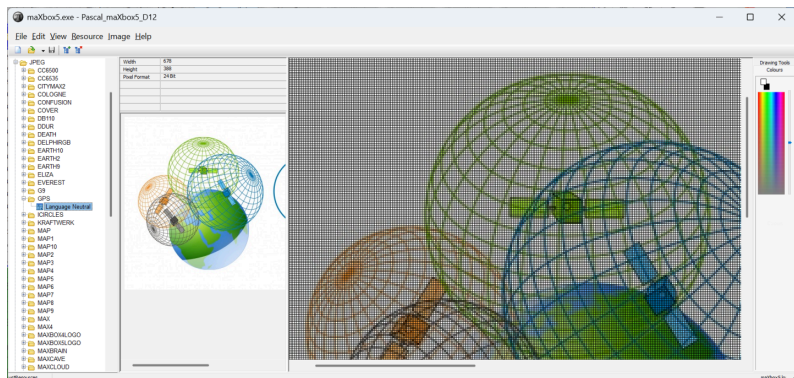
```

[https://sourceforge.net/projects/maxbox5/files/examples/1459\\_Pells\\_equation1.pas/download](https://sourceforge.net/projects/maxbox5/files/examples/1459_Pells_equation1.pas/download)

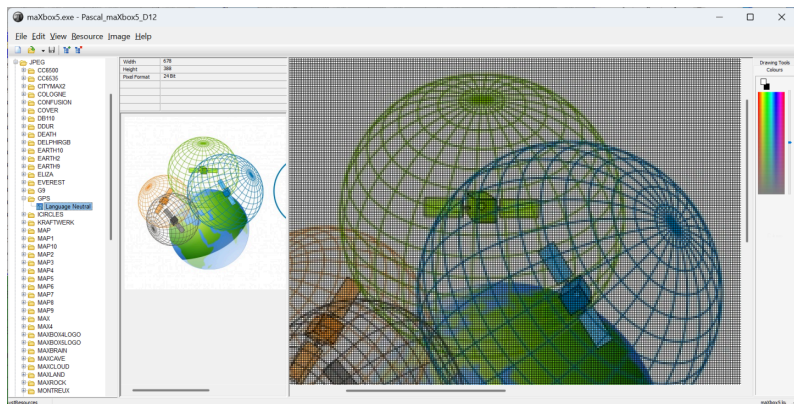
Advertisement  
Privacy Settings



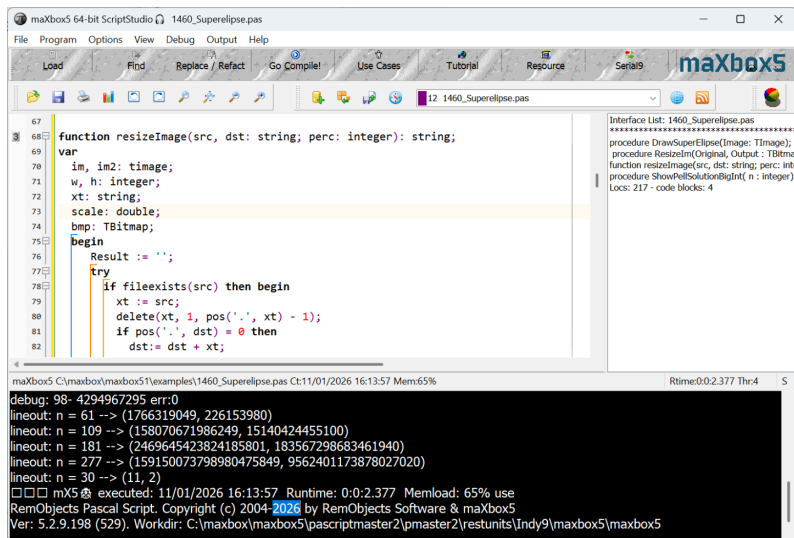
Resource Explorer mX5.2



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Resource Explorer Zooms



[https://sourceforge.net/projects/maxbox5/files/examples/1460\\_Superellipse.pas/download](https://sourceforge.net/projects/maxbox5/files/examples/1460_Superellipse.pas/download)

A [superellipse](#) is a geometric figure defined as the set of all points (x, y) with

$$\left| \frac{x}{a} \right|^n + \left| \frac{y}{b} \right|^n = 1,$$

where  $n$ ,  $a$ , and  $b$  are positive numbers.

#### Task

Draw a superellipse with  $n = 2.5$ , and  $a = b = 200$

[Superellipse – Rosetta Code](#)

GPS and an ellipse are closely related because GPS positions are defined on an ellipsoid, which is a 3-D body generated by rotating an ellipse.

#### Earth as an ellipsoid

- For GPS, the Earth is not treated as a perfect sphere but as an oblate ellipsoid (flattened at the poles, bulging at the equator).
- This ellipsoid is defined mathematically (semi-major axis and flattening), and the standard used by GPS is essentially the WGS-84/GRS80 ellipsoid.

#### GPS coordinates on the ellipsoid

- A GPS receiver first computes a 3D Cartesian position (X, Y, Z) and then converts it into latitude, longitude, and ellipsoidal height relative to this reference ellipsoid.
- The latitude and longitude you see on a GPS are therefore geodetic coordinates on that ellipsoidal model of Earth, and the reported “height” is the distance above or below the ellipsoid, not directly above mean sea level.

The screenshot shows the Softpedia website interface. At the top, there are navigation links for 'WINDOWS APPS', 'MAC APPS', 'LINUX APPS', 'DRIVERS', and 'ANDROID APK'. Below this, there are filters for 'SORT BY' (Last Update, Downloads, Rating) and 'ALL', 'FREE', 'PAID'. The main content area displays a list of software applications:

- maXbox 5.2.9.198**: Create your scripts with this Delphi-based application that enables you to test your algorithms, L... (6,399 downloads, 82.7 MB)
- Amazon ElastiCache Command Line Toolkit 2.33.2 / 1.44.20**: A toolkit that enables users to execute Amazon ElastiCache APIs with simple commands, through inte... (17,250 downloads, 21.9 MB)
- Gradle 9.3.0 / 8.14.3 / 7.6.6 / 6.9.4**: Open-source building tool for Java, C++, Python and other types of software developers, featuring ... (31,850 downloads, 128 MB)
- PMD 7.15.0 / 7.21.0 (16-January-2026) Snapshot**: A simple source code scanner and analysis utility that can help you with your work by detecting in... (56,518 downloads, 67.9 MB)

[maXbox – Download – Softpedia](#)

## 13. Barcode Generator

This is a Delphi library for generating barcodes using the <https://barcodeapi.org> API. The library provides functions to create barcodes of various types, such as QR codes, Aztec codes, Code 39, Code 128, and more. It also allows you to display the generated barcodes in Delphi TImage components.

[maxkleiner/BarcodeApiCreator](#): This is a Delphi library for generating barcodes using the <https://barcodeapi.org> API

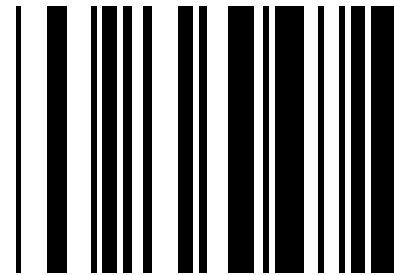
Generate barcodes of different types (QR codes, Aztec codes, Code 39, etc.). Display the generated barcodes in Delphi TImage components. Easy-to-use API integration for barcode generation. Error handling for network requests and API responses.

[maxkleiner/BarcodeApiCreator](#): This is a Delphi library for generating barcodes using the <https://barcodeapi.org> API

```

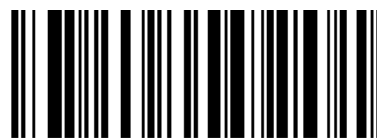
1  function APIBarcode(AURL, atype, url_name, afile: string): st
2  var httpq: THttpConnectionWinInet;
3      rets: TMemoryStream;
4      heads: TStrings; iht: IHttpConnection; //losthost:THTTCo
5  begin
6      httpq:= THttpConnectionWinInet.Create(true);
7      rets:= TMemoryStream.create;
8      //heads:= TStringlist.create;
9      try
10     //heads.add('Accept=image/jpg');
11     writ(Format(AURL,[urlencode(atype),urlencode(url_name)]))
12     //iht:= httpq.setHeaders(heads);
13     httpq.Get(Format(AURL,[urlencode(atype),urlencode(url_nam
14     if httpq.getresponsecode=200 Then begin
15         rets.Position:= 0;
16         // Add the '.png' extension to the FileName
17         //FileName := ChangeFileExt(FileName, '.png');
18         rets.savetofile(afile);
19         openfile(afile);
20     end
21     else result:='Failed:'+
22         itoa(Httpq.getresponsecode)+Httpq.GetResponseHea
23 except
24     writeln('EWI_HTTP: '+ExceptionToString(exceptiontype, exce
25 finally
26     httpq:= Nil;
27     //heads.Free;
28     rets.Free;
29 end;
30 end;           //}

```



maXbox5

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maXbox5

Barcode Generator

[https://sourceforge.net/projects/maxbox5/files/examples/1471\\_BarcodeGenerator\\_API12.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1471_BarcodeGenerator_API12.txt/download)



[https://sourceforge.net/projects/maxbox5/files/examples/1471\\_BarcodeGenerator\\_API12form.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1471_BarcodeGenerator_API12form.txt/download)

```

1  function APIBarcode3(AURL,atype,url_name,afile: string): bool
2  var encodedURL:String; mapStream: TMemoryStream;
3  begin
4  encodedURL:= Format(AURL,[urlencode(atype),urlencode(url_name)
5  mapStream:= TMemoryStream.create;
6  try
7  Wininet_HttpGet(EncodedURL, mapStream); //WinInet
8  mapStream.Position:= 0;
9  mapStream.Savetofile(afile); // OpenDoc(apath);
10 result:= true;
11 S_ShellExecute(afile, '',seCmdOpen);
12 except
13 writeln('HTTPS: '+ExceptionToString(exceptiontype,exceptionmessage));
14 result:= false;
15 finally
16 mapStream.Free;
17 end;
18 end;

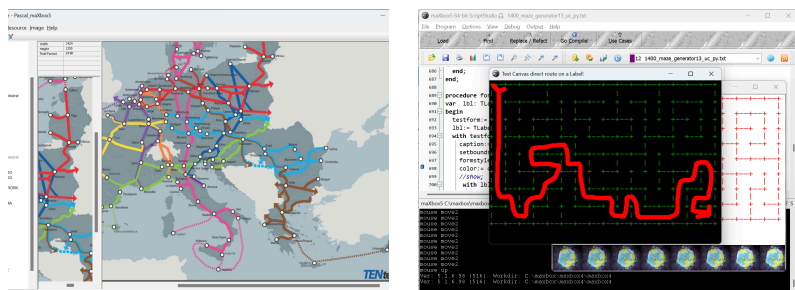
```



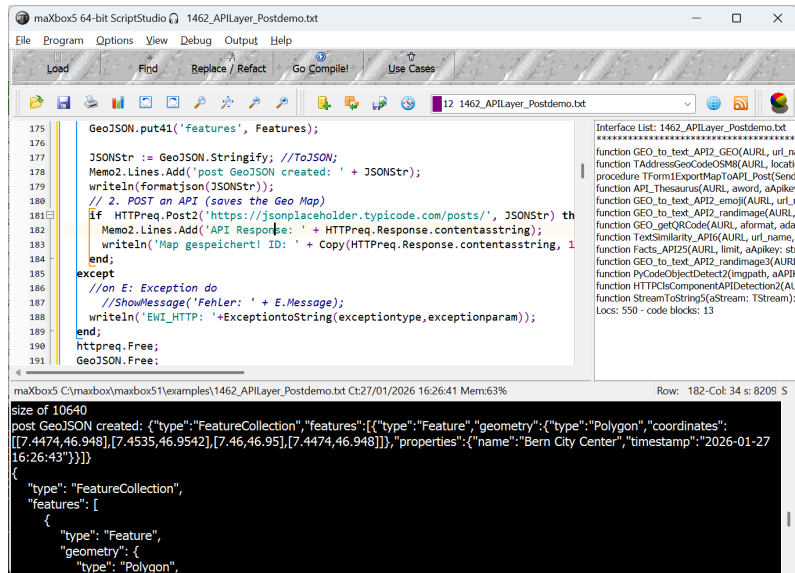
[https://sourceforge.net/projects/maxbox5/files/examples/1471\\_BarcodeGenerator\\_API12form\\_simple.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1471_BarcodeGenerator_API12form_simple.txt/download)

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## Preparing 5.3







[https://sourceforge.net/projects/maxbox5/files/examples/1462\\_APILayer\\_Postdemo.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1462_APILayer_Postdemo.txt/download)

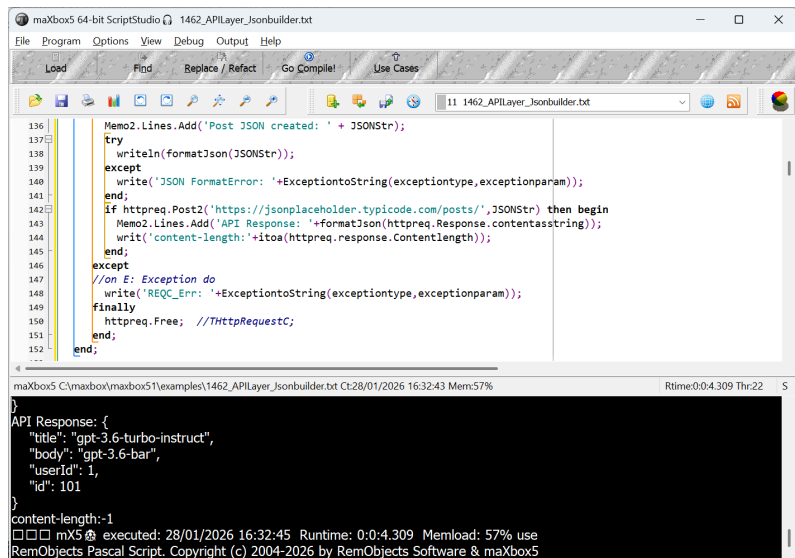
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JSONPlaceholder is a free online REST API that you can use whenever you need some fake data. It can be in a README on GitHub, for a demo on CodeSandbox, in code examples on Stack Overflow, ...or simply to test things locally.

A REST API responds with the 201 status code whenever a resource is created inside a collection. There may also be times when a new resource is created as a result of some controller action, in which case 201 would also be an appropriate response.

## JSONPlaceholder Test

JSONPlaceholder – Below you'll find examples using [Fetch API](#) but you can JSONPlaceholder with any other language and with maxBox5 as a JSON Bulder:



[https://sourceforge.net/projects/maxbox5/files/examples/1462\\_APILayer\\_Jsonbuilder.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1462_APILayer_Jsonbuilder.txt/download)

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```

fetch('https://jsonplaceholder.typicode.com/posts', {
  method: 'POST',
  body: JSON.stringify({
    title: 'foo',
    body: 'bar',
    userId: 1,
  }),
  headers: {
    'Content-type': 'application/json; charset=UTF-8',
  },
})
.then((response) => response.json())
.then((json) => console.log(json));

```

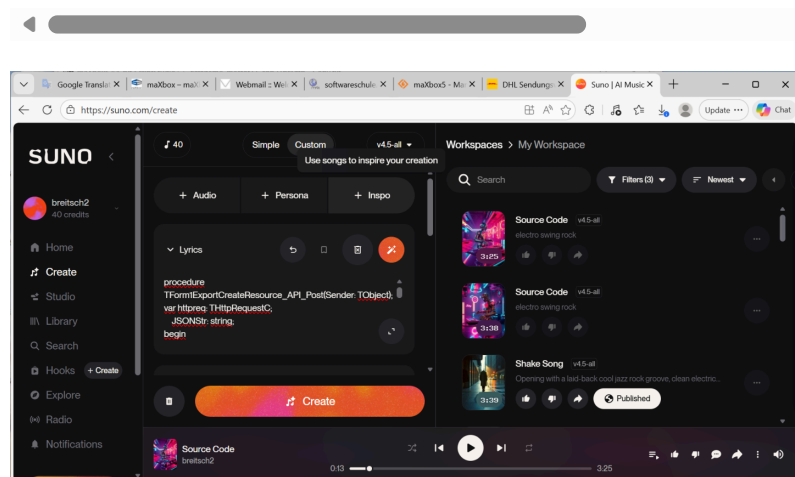
[JSONPlaceholder – Guide](#)

Important: resource will not be really updated on the server but it will be faked as if.

```

1  procedure TForm1ExportCreateResource_API_Post(Sender: TObject
2  var httpreq: THttpRequestC;
3     JSONStr: string;
4  begin
5     httpreq:= THttpRequestC.create(self);
6     httpreq.headers.add('Content-type: application/json; chars
7     try
8         //JSONStr:= GeoJSON.Stringify; //ToJSON;
9         JSONStr:= '{' +
10        '"title": "gpt-3.6-turbo-instruct",' +
11        //' "prompt": "%s",' +
12        '"body": "gpt-3.6-bar",' +
13        '"userId": 1'+
14        '}' ;
15
16        Memo2.Lines.Add('Post JSON created: ' + JSONStr);
17        try
18            writeln(formatJson(JSONStr));
19        except
20            write('JSON FormatError: '+ExceptionToString(exception
21            end;
22        if httpreq.Post2('https://jsonplaceholder.typicode.com/p
23            Memo2.Lines.Add('API Response: '+formatJson(httpreq.Re
24            writ('content-length: '+ittoa(httpreq.response.Contentle
25            end;
26        except
27            //on E: Exception do
28            write('REQC_Err: '+ExceptionToString(exceptiontype, excep
29        finally
30            httpreq.Free; //THttpRequestC;
31        end;
32    end;

```



Suno Song of Source Code above

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This electro swing rock number kicks off with punchy upright bass and swinging brass stabs layered atop crisp electronic beats. Electric guitars add distortion and rhythmic drive, while the verses combine syncopated piano chords, energetic drums, and occasional scratching. The chorus blends bold horn riffs

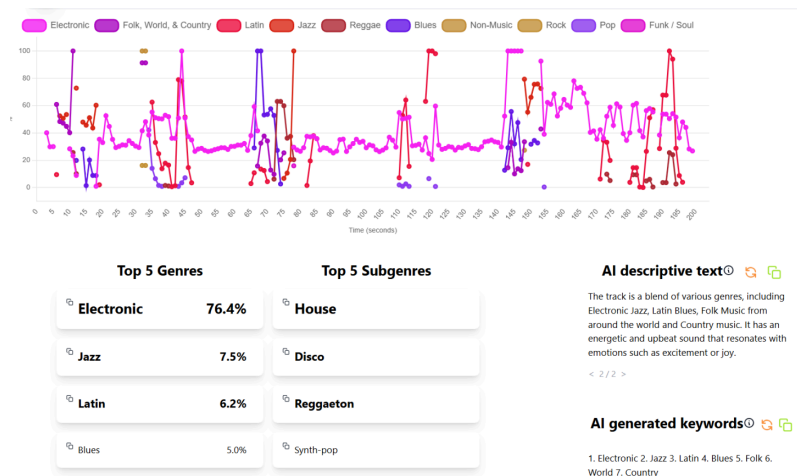
with crunchy power chords, and the bridge features a breakdown with filtered synths and jazz-influenced solos before returning to a high-energy, big-band finale.



Live Analysis Genre Finder


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[Music Genre Finder](#) | [Music Genre](#) | [Find Song Genre](#)



## maXbox Overview

Here's a clear, structured summary of the main points from the page you're viewing [1](#).



# Summary Page: maXbox / maXbox5 / maXbox6 Overview

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## What maXbox Is

- A self-contained scripting tool, compiler, and source library in one executable.
- Designed for object-based scripting with a focus on simplicity.
- Requires no installation or registration.
- Functions as a precompiled virtual machine with a bytecode interpreter.



## Technical Scope

- Contains 37,721+ functions, 4,343 objects, and 3,860 units.
- Supports a wide range of libraries:  
VCL, FCL, LCL, JCL, Indy, Synapse, TurboPower, TeeChart, DMath, PCRE, Python4Delphi, and many more.
- Multiple versions listed, including 64-bit Unicode builds.



## Tutorials & Learning Resources

The page includes a massive index of 150+ tutorials, covering:

- Procedural, OO, modular, and UML coding
- Networking, web servers, sockets, REST APIs
- Machine learning (many ML tutorials)
- Python integration
- Arduino & IoT
- Cryptography, regex, SQL, databases
- Data science, big numbers, geocoding
- Graphics, maps, 3D coding
- Debugging, refactoring, performance tuning
- pas2js, services, robotics, APIs
- Unicode, OS services, multimedia, and more
- And many more specialized topics

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This is essentially a complete learning hub for maXbox users.

# Examples & Code Snippets

The page embeds or links to many example projects, such as:

- Machine learning with Python (Iris dataset, ARIMA forecasting)
- FTP directory listing with Indy
- Pell's equation solver using big integers
- Superellipse / geometry examples
- REST API demos (JSONPlaceholder)
- GPS / ellipsoid explanations

These examples demonstrate how maXbox integrates with Python, handles math, networking, and data processing.

## Additional Features & Topics

- Games (Reversi, Othello, Minesweeper, Go)
- MIDI tools for musicians
- Print Studio, RichEdit control
- Resource Explorer, memory leak tracking
- Object detection with YOLO
- OpenGTS GPS tracking

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## Development Notes

- Mentions fixes and improvements in 64-bit Delphi integration.
- Notes on string handling, exceptions, and Pascal Script behavior.
- Python integration examples show full ML workflows embedded in maXbox.

```

1  procedure PY_Solution;
2  begin
3    with TPythonEngine.Create(Nil) do begin
4      autofinalize:= false;
5      loadDLL;
6      try
7        ExecString('import sys,re,io');
8        //ExecString(PYFUNC);
9        execstr('output=io.StringIO(); sys.stdout=output');
10       execstr('limit = 10000')
11       ExecString('for n in range(1,limit): '+lf+
12         '  nstr = str(n)           '+lf+
13         '  nlen = len(nstr)        '+lf+
14         '  square = str(pow(n,2))  '+lf+
15         '  rn = square[-nlen:]    '+lf+
16         '  if nstr == rn:          '+lf+
17         '    print(str(n)+" "+str(square))'+lf+
18         'print("PY done...")');
19       println(StringReplace(evalstr('(output.getvalue()).strip
20                                     LF,CRLF,[rFRep]
21
22     except
23       raiseError;
24     finally
25       unloadDll;
26       Free;
27     end;
end;

```

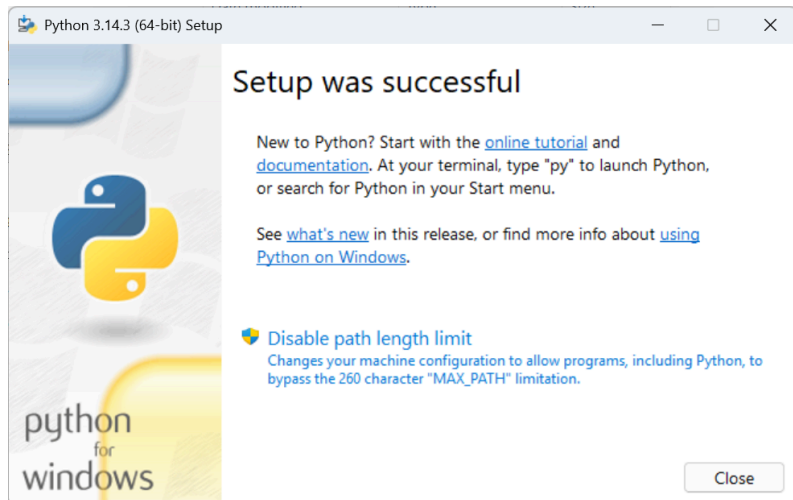
28 | end;



# Downloads

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- Links to maXbox5 releases, examples, and assets on SourceForge and GitHub.
- 10. Common Units
- Indy (HTTP, FTP, SMTP)
- Synapse (networking)
- TeeChart (charts)
- DMath (math)
- PCRE (regex)
- Python4Delphi
- ADO4 (database)
- Mapbox / GPS
- LockBox (crypto)

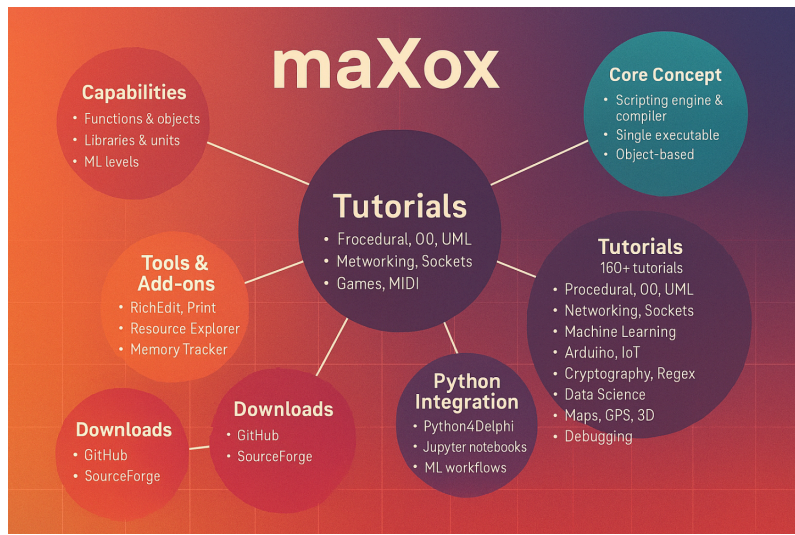


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If you want, I can also create:

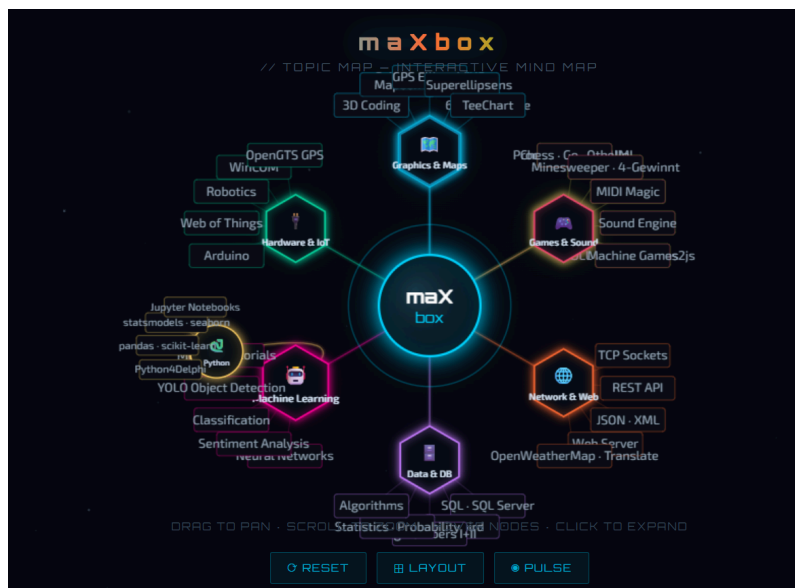
- A shorter summary
- A topic map
- A learning path based on the tutorials
- A cheat sheet for maXbox features

Just tell me what direction you want to explore next.



Different spell faults

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maXbox mindmap by Claude

[maXbox Topic Map](#)

## Translate API Gate Tool

While learning katekan through the source code of Google's [Google Dictionary Chrome extension](#), which has support for translating via Google Translate, I found the web frontend endpoint they use in order to do just that.

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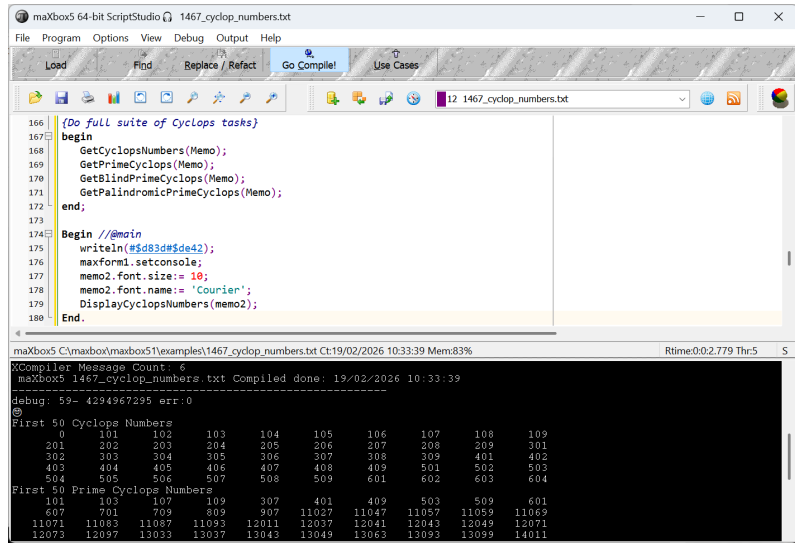
We dont need an API-Key and can call and use almost any Rest-Client:



11 | `print(model.summary())` # Outputs the full statistical table

# Cyclops numbers – Rosetta Code

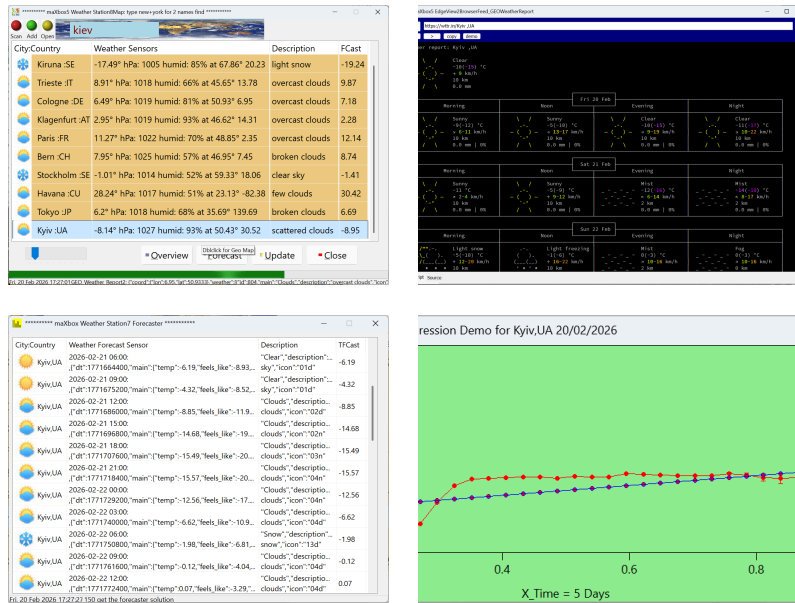
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[https://sourceforge.net/projects/maxbox5/files/examples/1467\\_cyclop\\_numbers.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1467_cyclop_numbers.txt/download)

# Weatherbox 5.7

The weatherbox application refers to various weather monitoring systems and software solutions. It uses different API's integrated in one platform of a maXbox host environment:



Weatherbox with forecast model 5 days

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Du kannst in maXbox entweder ein fertiges Wetterstations-Script laden oder dir mit wenigen Zeilen selbst eine kleine „Wetterstation“ bauen, die per OpenWeatherMap misst.softwareschule+1

In maXbox, you can either load a ready-made weather station script or build your own small “weather station” with just a few lines of code that measures

using OpenWeatherMap. softwareschule+1

## 1. Fertige Wetterstation (Weatherbox) starten

- Lade das Beispielscript „1415\_weather\_listview52.txt“ von SourceForge:  
Menü: File → Open from Web (oder direkt URL einfügen):  
[https://sourceforge.net/projects/maxbox5/files/examples/1415\\_weather\\_listview52.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1415_weather_listview52.txt/download)scribd+1
- Script in maXbox öffnen und mit F9 ausführen, damit startet die Open Weather Station App („Weatherbox“) unter Windows.softwareschule+1
- In Starter 147 ist das Schritt für Schritt beschrieben:  
[maxbox\\_starter147.pdf](#).scribd+1

## 2. Eigene Mini-Wetterstation in maXbox

Beispiel: aktuelles Wetter für Bern in der Konsole ausgeben.

1. In maXbox neues Script anlegen.
2. das script speichern und syntax-check durchführen
3. Diesen Code einfügen (API-Key bei Bedarf ergänzen):

```

program WeatherStationMini;

const
  UrlWeatherReport25 =
    'http://api.openweathermap.org/data/2.5/weather?q=%s&units=m

function GetGeoWeather(const location: string; const UrlRestAPI:
var
  lHTTP: TIdHTTP;
  lStream: TStringStream;
begin
  lHTTP := TIdHTTP.Create(nil);
  lStream := TStringStream.Create('');
  try
    lHTTP.Get(Format(UrlRestAPI, [location]), lStream);
    lStream.Seek(0, 0);
    Result := 'GEO_Weather_Report: ' + lStream.ReadString(lStre:
  finally
    lHTTP.Free;
    lStream.Free;
  end;
end;

begin
  writeln(GetGeoWeather('Bern', UrlWeatherReport25));
end.

```



Diese Struktur entspricht dem GetGeoWeather-Beispiel aus dem MAPS-und-GPS-Starter, der zeigt, wie man in maXbox eine einfache Wetterstation per REST-Aufruf aufbaut. [\[softwareschule\]](#)

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In maXbox integrierst du Wettervorhersagen, indem du statt des „current weather“-Endpoints die Forecast-Endpoints von OpenWeatherMap aufrufst und das JSON im Script auswertest. [openweathermap+1](#)

## Weather Forecasting

### 1. Passenden Forecast-Endpoint wählen

OpenWeather bietet mehrere Vorhersage-APIs, die alle JSON liefern. Typisch für maXbox sind: [maxbox4.wordpress+1](#)

- 5-Tage-/3-Stunden-Vorhersage:  
`http://api.openweathermap.org/data/2.5/forecast?q=Bern,ch&units=metric&appid=DEIN_API_KEYopenweathermap+1`
- Stündliche / tägliche Forecasts (One Call / weitere Varianten) analog, aber für den Anfang reicht `/forecast.maxbox4.wordpress+1`

Im Unterschied zur aktuellen Wetterabfrage ersetzt du also `/weather` durch `/forecast`. [\[youtube\]](#) [\[openweathermap\]](#)

### 2. maXbox-HTTP-Request anpassen

Ausgehend von deinem bisherigen GetGeoWeather-Muster (Starter 40 / Weatherstation-Tutorial) musst du nur die URL und ggf. den Rückgabetyper anpassen. [softwareschule+2](#)

```
program WeatherForecastMini;

const
  UrlForecast5 =
    'http://api.openweathermap.org/data/2.5/forecast?q=%s&units=

function GetForecast5(const location: string; const UrlRestAPI:
```

```
var
  lHTTP: TIdHTTP;
  lStream: TStringStream;
begin
  lHTTP := TIdHTTP.Create(nil);
  lStream := TStringStream.Create('');
  try
    lHTTP.Get(Format(UrlRestAPI, [location]), lStream);
    lStream.Seek(0, 0);
    Result := lStream.ReadString(lStream.Size); // rohes JSON, s
  finally
    lHTTP.Free;
    lStream.Free;
  end;
end;

begin
  writeln(GetForecast5('Bern,ch', UrlForecast5));
end.
```

Dieses Schema entspricht dem im maXbox-Primer zu OpenWeather (Starter 40) und dem Weatherstation-Tutorial, nur mit Forecast-Endpoint.softwareschule+2

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### 3. Vorhersage-Daten aus dem JSON lesen

Die 5-Tage-Vorhersage liefert eine Liste von Zeitpunkten (`list[]`), jeweils mit `dt_txt`, `main.temp`, `weather[0].description` usw. `openweathermap+1`

Ein typischer Auszug sieht so aus: `maxbox4.wordpress+1`

```
json{
  "list": [
    {
      "dt": 1572836400,
      "main": { "temp": 7.5, "humidity": 93 },
      "weather": [ { "main": "Rain", "description": "light rain" },
      "wind": { "speed": 3.0 },
      "dt_txt": "2019-11-04 00:00:00"
    }
  ],
  "city": { "name": "Bern", "country": "CH" }
}
```



Im Weather-Forecast-Blog/WordPress-Beitrag zu maXbox wird gezeigt, wie diese Struktur für Bern, CH genau aussieht und wie man die verschiedenen Forecast-Typen (Hourly, 3-h-Step, Daily, Climate) anspricht. Dort kannst du dich beim Parsen an den Beispielen orientieren (z.B. Schleife über `list[]`, jeweils Datum/Zeit, Temperatur, Beschreibung herausziehen). `softwareschule.code+1`

#### 4. Integration in eine GUI-Wetterstation

Im Weatherstation-Tutorial (Starter 147) wird bereits eine Open-Weather-Station („Weatherbox“) als maXbox-Script gezeigt, die aktuelle Daten holt und in einer GUI darstellt. Um Vorhersagen zu integrieren, gehst du genauso vor, ersetzt aber den Endpoint durch `/forecast` und zeigst statt nur eines Eintrags mehrere Zeitpunkte in einer ListView oder einem Memo an.scribd+2

- Bestehende `GetGeoWeather`-Funktion duplizieren → `GetForecast5.softwareschule+1`
- Rückgabe-JSON mit einer JSON-Lib oder manueller String-Suche auf `dt_txt`, `temp`, `description` untersuchen.[[maxbox4.wordpress](#)]
- Pro Vorhersage-Zeile einen Eintrag in ListView/Grid hinzufügen (z.B. Datum, Uhrzeit, Temp, Beschreibung).softwareschule+1

Wenn du mir dein aktuelles maXbox-Script (Weatherbox oder dein eigenes) oder deine Ziel-GUI (Memo, ListView, Chart) beschreibst, kann ich dir den Forecast-Code direkt in deine Struktur einbauen (Perplexity, Claude).

## Cubic Primes

$n$  is smallest prime such that the difference of successive terms are the smallest cubics of positive integers, where  $n < 15000$ .

```

32 (Find first cube increment that is prime)
33 PP:=4+I*I;
34 if PP>limit then break;
35 //if Sieve.Flags[PP] then
36 if Sieve.isprime(PP) then begin
37   Inc(Count);
38   S:=S+Format('%d', [PP]);
39   if (Count mod 5) = 0 then S:=S+CRLF;
40   {Step to next cube position}
41   I:=I+1;
42   N:=PP;
43 end
44 else Inc(I);
45 end;
46 Memo.Lines.Add(Format('There are %d cubic special primes', [count]));
47 Memo.Lines.Add(S);
48 finally

```

maXbox5 C:\maxbox\maxbox5\examples\1470\_cCubicSpecialPrimes.txt Ct:22/02/2026 20:37:48 Mem:66% Rtime:0:0:2.615 Thr:4 S

```

XCompiler Message Count: 1
maXbox5 1470_cCubicSpecialPrimes.txt Compiled done: 22/02/2026 20:37:48
debug: 21- 4294967295 err:0
There are 23 cubic special primes
2 3 11 19 83
1011 2027 2243 2251 2467
2521 2539 2839 3247 4547
5059 10891 12619 13619 13627
13691 13907 14419
maXbox5 executed: 22/02/2026 20:37:48 Runtime: 0:0:2.615 Memload: 66% use
RemObjects Pascal Script Copyright (c) 2004-2026 by RemObjects Software & maXbox5

```

[https://sourceforge.net/projects/maxbox5/files/examples/1470\\_cCubicSpecialPrimes.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1470_cCubicSpecialPrimes.txt/download)

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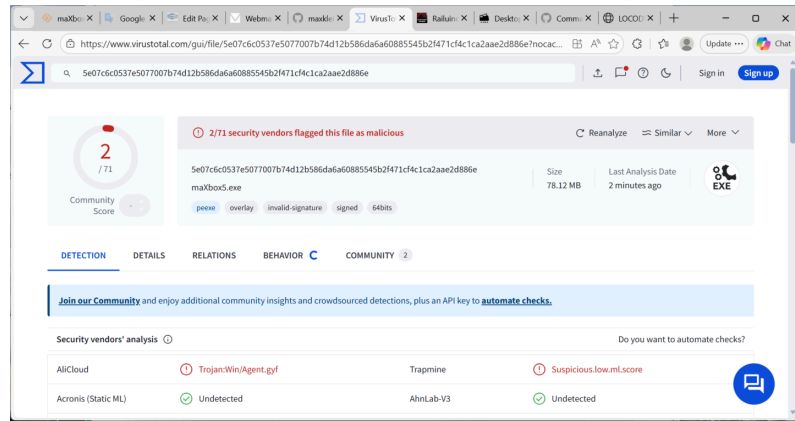
Here's another program answering fairly meaningless questions but providing a good programming exercise with a little math mixed in.

## CheatSheet:

<https://claude.ai/public/artifacts/11968d9f-d02c-4183-a7aa-68dcfefcd382e>

## Mindmap:

<https://claude.ai/public/artifacts/8a58da49-1753-4522-b0a2-8207942b300e>



Latest Version 5.2.9.198

## **maXbox ist eine portable, in Delphi entwickelte Object-Pascal-Scriptumgebung, die als „Script Studio“ mit integriertem Interpreter/Compiler und großer Funktionsbibliothek konzipiert ist. [\[blogs.embarcadero\]](https://blogs.embarcadero.com)**

### **Grundkonzept und Architektur**

- Object-Pascal-Scripting: Die Skriptsprache basiert auf Object Pascal, sodass Delphi-Kenntnisse direkt einsetzbar sind.[\[blogs.embarcadero\]](https://blogs.embarcadero.com)
- All-in-one-Studio: Editor, Skriptengine, Compiler und umfangreiche Beispiel-/Quellcodesammlung sind in einer einzigen EXE gebündelt, ohne Installation oder Registry-Einträge.[\[blogs.embarcadero\]](https://blogs.embarcadero.com)
- Selbstenthaltend und portabel: Läuft als 32-Bit-Windows-Programm, funktioniert auch unter 64-Bit-Windows sowie via Wine unter Linux und macOS.[\[blogs.embarcadero\]](https://blogs.embarcadero.com)

### **Einsatzgebiete**

- Schnelle Tests und Prototyping: Ideal für das Ausprobieren von Algorithmen, Delphi-Code-Snippets und API-Aufrufen, ohne ein vollständiges Delphi-Projekt aufzusetzen.[\[blogs.embarcadero\]](https://blogs.embarcadero.com)
- Admin- und Automation-Skripte: Wird u.a. für Testing, Security-Checks und Administration verwendet; Skripte können Dateisystem- und Netzwerkoperationen durchführen.[\[blogs.embarcadero\]](https://blogs.embarcadero.com)
- Lehre und Beispielcode: In Verbindung mit der Softwareschule/maXbox-Tutorials dient es als Lernumgebung für Pascal/Delphi und angewandte Programmierung.[\[softwareschule\]](https://softwareschule.com)

### **Technische Besonderheiten**

- Basierend auf Delphi und PascalScript: Die Engine nutzt eine PascalScript-Runtime; es existieren Arbeiten zur Migration der Codebasis bzw. Script-Runtime Richtung 64-Bit (Win64, Linux64, macOS64).[\[softwareschule\]](https://softwareschule.com)
- Bibliotheksstruktur: Quellcode ist typischerweise in Komponenten- (\_C), Runtime- (\_R) und Design-Units (\_D) gegliedert, was Wiederverwendung und Portierung erleichtert.[\[softwareschule\]](https://softwareschule.com)
- Debugger-Unterstützung: Beim Portieren/Erweitern werden Delphis Debug-Möglichkeiten (Exceptions filtern, erweiterte Breakpoints) intensiv genutzt, um Script-Laufzeitfehler sauber zu behandeln.[\[softwareschule\]](https://softwareschule.com)

### Praxisbeispiel

Ein typischer Workflow: maXbox starten, ein Object-Pascal-Script im Editor schreiben (z.B. HTTP-Request, JSON-Parsing, Dateiverarbeitung), mit einem Klick kompilieren und ausführen – ohne Projektdateien, Installer oder IDE-Konfiguration.[\[blogs.embarcadero\]](#)

### Try it online!

# Wine Debugging

## maXbox5.2 on Wine 10 or 11

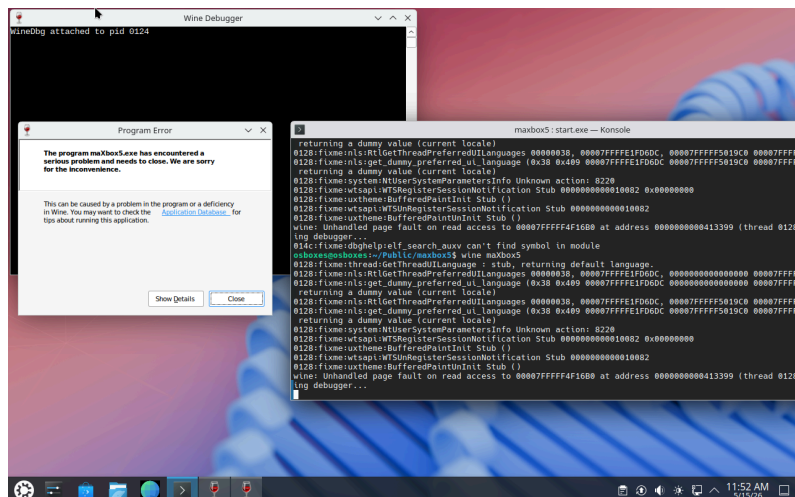
As I got one page fault exception in Version 5.2 and couldn't solve the problem, so I summarised my experience to track or debug the problem, which still exists.

I suspect the SynEdit component which provokes an unhandled page fault to DirectWrite in the Library DirectX as a signal wine raises an exception to stop and crashes.

Version	Description	Latest Rating	Latest Wine version tested	Test results	Comments
4.2.5	Release Notes maXbox 4.2.5.10 March 2017	Gold	1.6.2	1	3
4.2.6.10	add 10 units + 260 functions SHA256 -StreamStorage -WMI 3 etc.	Gold	2.11-staging	1	1
4.5.8.10	Release Notes maXbox 4.5.8.10 Dez 2017 Ocean8 mX4	Gold	2.22	1	1
4.6.2.10	add Tutor 56 Neural Network -Python Checker	Gold	3.0	1	2
4.7.1.82	Release Notes maXbox 4.7.1.82 Dez 2019 mX47	Gold	4.0.2	1	0
4.7.4.60	Release Notes maXbox 4.7.4.60 April 2020 mX47	Gold	5.4	1	0
4.7.4.64	Release Notes maXbox 4.7.4.64 June 2020 mX47	Gold	5.6	1	0
4.7.5.20	Release Notes maXbox 4.7.5.20 Jan 2021 mX47	Gold	5.22	1	0
4.7.5.90	Release Notes maXbox 4.7.5.90 V October 2021 mX475	Silver	6.20	1	1
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5.2.9.198	Release Notes maXbox 5.2.9.198 September 2025 mX529 beta64-bit	Garbage	11.0	1	0
5.2.9.198	Release Notes maXbox 5.2.9.198 September 2025 mX529 beta64-bit	Garbage	11.0	1	0

winehq db list

Wine is a compatibility layer that translates Windows system calls to Linux-friendly ones, allowing Windows programs to run efficiently without the overhead of a complete emulator. It's been around since 1993 and is constantly evolving. Wine is open-source, allowing contributions from the Linux community and companies like Valve (more on that later), so support for many Windows programs has gotten better with time.



Unhandled Page Fault

A Wine “page fault” is usually an `STATUS_ACCESS_VIOLATION` crash, and the right way to handle it is to capture the backtrace, identify whether the fault is in Wine or in the app, and then narrow it down with Wine’s debug logs. Wine’s own debugging guide recommends starting with `WINEDEBUG+=seh`, then using `winedbg` for a backtrace if needed, and checking for heap corruption with `warn+heap` or `+heap` when relevant.

### Practical workflow

1. Run the program from a terminal so you can see the crash output.
2. Add `WINEDEBUG+=seh` to capture exception context; for example, this helps you find the first `c0000005` page fault.
3. If the app still hides the problem, attach `winedbg` and use `bt` to get a backtrace.
4. If the crash looks like memory corruption, try `WINEDEBUG=warn+heap` or `WINEDEBUG+=heap`.

### What to look for

If the backtrace points into Wine code, the bug is likely in Wine or in a dependency it uses; if it points into the application, the app may be making a bad API call or dereferencing a bad pointer. A `NULL` pointer dereference often means Wine did not provide something the app expected, while crashes in `ntdll/heap.c` often mean heap corruption somewhere earlier. The Wine docs also note that `CoGetClassObject` failures followed by a null dereference often indicate a missing COM object implementation.

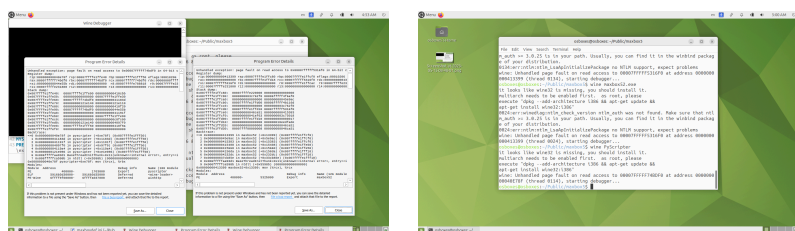
### Common fixes

For many “unhandled page fault” reports, the fix is actually outside Wine: graphics-driver issues, broken GPU switching on hybrid laptops, or a bad prefix can be the real cause. In one WineHQ thread, the crash disappeared after fixing GPU/Optimus configuration, and another report linked the issue to an Intel virtual-heads Xorg config file that had to be removed.

The problem is, when I run my application from the IDE then everything works correctly, but if I try to start the application from File Explorer then I get runtime error 217 in both Debug and Release modes.

Runtime error 217 is thrown when an unhandled exception is raised before the exception handling framework is installed at startup, or after it is removed at shutdown.

So most likely the error is being caused in Initialization section of one of your units and I traced it down to the packages SynEdit in dependence to DirectWrite.



Wine Debugger at Kubuntu

### Example command

A good first probe is:

```
bashWINEDEBUG=+seh wine yourapp.exe
```

If you want deeper tracing, use `winedbg` after the crash and grab `bt` for the stack trace.

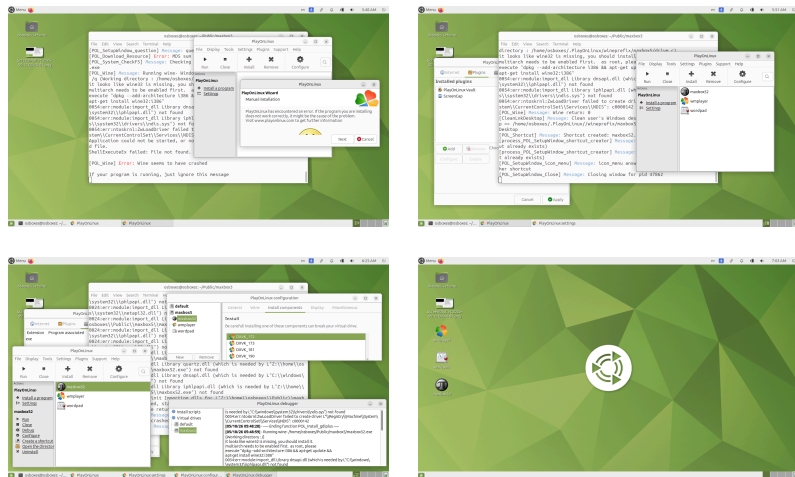
## PlayOnLinux

PlayOnLinux is a free and open-source program that uses Wine as its compatibility layer but provides a more user-friendly graphical interface. It simplifies the installation and configuration of Windows applications and games on Linux. PlayOnLinux supports a wide range of applications, including Microsoft Office, Adobe Acrobat Reader, and various games.

# Example of installing PlayOnLinux on Ubuntu

```
sudo apt update
```

```
sudo apt install playonlinux
```



Play on Linux Debug Session

## Handle or bypassing a page fault exception

You usually don't bypass a Wine page fault exception; you fix the cause, because the message is just Wine reporting a crash, not something meant to be ignored. In many real cases on Linux, the fix is graphics- and Wine-stack related: Xorg/driver configuration, switching GPU mode, rebuilding the Wine prefix, or changing the Wine/DXVK version. [ubuntuforums+5](#)

## What to try

- Check whether it happens with only one app or with every Wine app. If it is every app, the problem is more likely Wine, drivers, or your graphics setup than the program itself. [forum.winehq+1](#)
- Try a clean prefix: back up and remove `~/.wine`, then let Wine recreate it. Several reports mention corrupted prefixes or old configs causing repeated page faults. [forum.endeavourous+1](#)
- Test another Wine version, and if you use DXVK/Lutris/Proton-GE, try a different build or run once without DXVK. One report fixed the issue by changing Wine/DXVK combinations. [forum.endeavourous](#)
- If you have Intel/NVIDIA/AMD graphics switching, verify the correct GPU is active and that Xorg config is present and loaded correctly. Missing or wrong Xorg device config has been linked to Wine page faults. [bbs.archlinux+1](#)

- On older setups, TLS-related Xorg settings were a fix for Wine crashes; one report resolved it with `Option "UseFastTLS" "2"` in `xorg.conf`. [ubuntuforums](#)

When a "bypass" makes sense

If by "bypass" you mean "keep the app running even though Wine crashes," that is generally not practical for a page fault. The closest alternatives are debugging with `winedbg` or `gdb`, or isolating the exact module causing the crash so you can replace or disable that component. [stackoverflow+1](#)

Practical next step

The fastest useful approach is: create a fresh Wine prefix, try a different Wine build, and confirm your GPU/Xorg setup. If the problem is specific to one application, the likely fix is app-specific compatibility settings rather than a global bypass. [forum.winehq+2](#)

You debug Wine crashes by using `winedbg` (Wine's built-in debugger) for simple Windows-style debugging, or by attaching `gdb` to the Wine process for deeper low-level inspection. The key difficulty is that Wine's loader can complicate things; a common workaround is to set `WINELOADERNOEXEC=1` so `gdb` sees symbols correctly. [ubuntuforums](#)

## 1. Using `winedbg` (Wine's debugger)

### Basic usage

Run the program directly under `winedbg`:

```
bashwinedbg your_app.exe
```

or with a custom prefix:

```
bashWINEPREFIX=~/.mywineprefix winedbg your_app.exe
```

Once inside `winedbg`:

- `c` – continue execution
- `s` – step into next instruction
- `n` – step over
- `bt` – backtrace (show call stack)
- `info registers` – show registers
- `list` – show source (if available)
- `break function` – set breakpoint, e.g. `break CreateFileA`
- `run` – start the program [winehq+1](#)

**Important:** `winedbg` requires you to set breakpoints *before* the crash happens if you want to stop early. If you just run the program without breakpoints, it may exit immediately and you only see the crash state. [winehq](#)

For built-in tools:

```
bashwinedbg notepad.exe
```

works even if your own exe crashes before `winedbg` can attach. [winehq](#)

## When `winedbg` isn't enough

- Some crashes happen during process startup, before you can set breakpoints.
- wineDBG may not reliably break before the entry point in all cases. [news.ycombinator+1](#)
- For complex crashes (e.g. page faults, stack corruption), gdb is usually more powerful.

---

## 2. Using gdb to debug Wine apps

### A. Simple approach: attach to a running Wine process

1. Start your Wine app normally: `bash wine your_app.exe &`
2. Find its PID: `bash ps aux | grep your_app.exe`
3. Attach gdb: `bash gdb -p <PID>`

Inside gdb:

- `bt` – backtrace
- `info registers`
- `frame N` – select stack frame
- `print var` – inspect variables
- `continue` – resume [reddit](#)

This is good for investigating a crash that already happened, but you can't easily set breakpoints before the crash.

---

### B. Better: run Wine itself under gdb (with WINELOADERNOEXEC=1)

This is the most robust method for debugging startup crashes and page faults.

1. Set the environment variable to prevent Wine from re-executing its preloader: `bash export WINELOADERNOEXEC=1`
2. Start gdb with Wine and your program: `bash gdb --args wine your_app.exe` Or with a custom prefix: `bash WINEPREFIX=~/.mywineprefix gdb --args wine your_app.exe`
3. In gdb, set up fork/exec behavior and run: `text set follow-fork-mode child set follow-exec-mode new run` If you see fork/exec catchpoints, you can use: `text catch fork catch exec continue` until you're in your actual program. [ubuntuforums](#)
4. Set breakpoints: `text break CreateFileA break RtlAnsiStringToUnicodeString break your_dll!YourFunction` Or by address if symbols aren't available: `text break *0x7bc714dd`
5. Run and inspect on crash: `text run # When it crashes: bt info registers frame N print var`

With `WINELOADERNOEXEC=1`, gdb can see Wine DLL symbols (like `ntdll.dll`, `kernelbase.dll`) and produce useful backtraces instead of just ?? frames. [ubuntuforums](#)

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### C. Adding Wine DLL symbols manually (if needed)

If gdb doesn't automatically resolve Wine DLL functions:

1. Find the PID of the Wine process.
2. Check `/proc/<PID>/maps` to find where `ntdll.dll.so`, `kernelbase.dll.so`, etc. are mapped: `bashcat /proc/<PID>/maps | grep ntdll`
3. In gdb, load symbols at the mapped base address: `textadd-symbol-file /usr/lib/wine/ntdll.dll.so 0x7bc00000 add-symbol-file /usr/lib/wine/kernelbase.dll.so 0x7b000000` Adjust paths and addresses to your system. [ubuntuforums](https://ubuntuforums.org)

### 3. Debugging a page fault / access violation

When Wine reports something like:

Unhandled exception: page fault on read/access/execute

1. Run under gdb as above.
2. When it crashes, immediately do: `textbt info registers info args`
3. Look at:
  - The instruction pointer (`eip/rip`)
  - The faulting address (often in registers or in the signal info)
  - Which Wine DLL or your app's module it's in `stackoverflow+2`

This often reveals:

- Corrupted stack / invalid pointer
- Bad module load address
- GPU/driver-related code path (e.g. shader compiler, DXVK)

You can then:

- Try a fresh Wine prefix (`rm -rf ~/.wine` and recreate).
- Test different Wine / DXVK versions.
- Disable graphics features (hardware acceleration, etc.) to isolate the crash path.

### 4. Practical workflow summary

- For quick checks:  
`winedbg your_app.exe` → set breakpoints → `c` → `bt` on crash.
- For real crash investigation:  
`WINELOADERNOEXEC=1 gdb --args wine your_app.exe`  
→ `set follow-fork-mode child` → `run` → `bt` on crash.
- If every Wine app crashes, the issue is likely Wine/drivers/Xorg, not the app; focus on prefix, Wine version, and graphics config instead of just debugging. [forum.winehq+1](https://forum.winehq.org)

If you tell me your Linux distro, Wine version, and whether the crash is 32-bit or 64-bit, I can give exact commands tailored to your setup.

On Ubuntu 24.04 with Wine 9.0 crashing on 64-bit apps (often with “page fault” errors), the most effective approach is to debug with gdb under `WINELOADERNOEXEC=1` and then use what you find to decide whether to switch Wine versions/branches, fix graphics drivers, or recreate the prefix.

Below is a tailored, step-by-step guide.

## 1. Prepare your system for debugging

### 1.1. Enable 32-bit architecture (required for full Wine on 64-bit)

Even if you only run 64-bit apps, Wine on Ubuntu needs multiarch:

```
bashsudo dpkg --add-architecture i386
sudo apt update
```

### 1.2. Install gdb and Wine debug tools

```
bashsudo apt install gdb wine64 wine32:i386 winehq-stable # if
you want WineHQ stable
```

If you're using the Ubuntu repo Wine (9.0~repack), that's already Wine 9.0 stable; you can also install `winehq-staging` to test a different build side-by-side.[reddit+1](#)

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## 2. Debug with wineDBG (quick checks)

### 2.1. Run the app under wineDBG

```
bashWINEPREFIX=~/.wine64prefix wineDBG your_app.exe
```

If wineDBG starts but the app crashes immediately:

- Inside wineDBG: `textbt info registers`
- Try setting a breakpoint before running: `textbreak NtCreateFile c`

wineDBG can act as a drop-in Dr. Watson and show basic crash info.[manpages.ubuntu](#)

Limitation: For startup crashes and page faults, wineDBG often isn't enough; `gdb` is more powerful.

---

## 3. Best method: run Wine under gdb with WINELOADERNOEXEC=1

This is the most reliable way to get a real backtrace on a Wine 9.0 64-bit crash under Ubuntu 24.04.

### 3.1. Set the environment variable

```
bashexport WINELOADERNOEXEC=1
```

This prevents Wine from re-executing its preloader, which otherwise breaks gdb symbol resolution.[ubuntuforums](#)

### 3.2. Start gdb with Wine and your app

```
bashgdb --args wine64 your_app.exe
```

Or with a custom prefix:

```
bashWINEPREFIX=~/.wine64prefix gdb --args wine64 your_app.exe
```

Inside gdb:

```
textset follow-fork-mode child
set follow-exec-mode new
run
```

If you see fork/exec catchpoints:

```
textcatch fork
catch exec
continue
```

Keep continuing until you're in your actual app and it crashes.

### 3.3. When it crashes

Immediately run:

```
textbt full
info registers
info args
frame 0
```

Look for:

- The instruction pointer (`rip`)
- The faulting address (often in registers or in the signal message)
- Which module is crashing: your app's EXE/DLL or a Wine DLL (`ntd11.dll.so`, `kernelbase.dll.so`, `wow64.dll`, etc.)

This backtrace will show whether the crash is:

- In Wine itself (e.g., `ntd11`, `kernelbase`, `wow64`)
- In your app's code
- In a graphics/directx path (`DXVK`, `Vulkan`, etc.)

---

## 4. Common causes on Ubuntu 24.04 + Wine 9.0 64-bit

Based on similar reports with Wine 9.0 and page faults:

### 4.1. Corrupted or incompatible Wine prefix

Many users fix page faults by removing and recreating the prefix:

```
bashmv ~/.wine ~/.wine.bak
wine64 your_app.exe # creates a new prefix
```

If you use a custom prefix:

```
bashrm -rf ~/mywineprefix
WINEPREFIX=~/mywineprefix wine64 your_app.exe
```

Then test again.

### 4.2. Wine version / branch issues

Some apps crash on Wine 9.0 stable but work on:

- `winehq-staging`, or
- a newer Wine (e.g., 9.x development / 10.x), or
- Proton via Steam

You can install Wine Staging side-by-side:

```
bashsudo apt install --install-recommends winehq-staging
```

Then test:

```
bashWINEPREFIX=~/.wine-staging-prefix /opt/wine-staging/bin/wine
your_app.exe
```

One user reported that a modern game that crashed on Wine 9.0 with page faults worked well on Wine 10.0 with a clean 64-bit prefix [crateentertainment](#)

### 4.3. Graphics / DXVK / Wayland issues

Page faults on “execute access” often tie to GPU/driver/DXVK:

- If you’re on Wayland, try X11:
  - At login, choose “Ubuntu on Xorg”.
- If you use DXVK, try:
  - Disabling DXVK, or
  - Switching DXVK versions.
- Update your GPU drivers:
  - NVIDIA: `sudo ubuntu-drivers install` or use the official driver PPA.
  - Intel/AMD: ensure you have the latest mesa drivers.

Multiple reports link Wine crashes to GPU driver issues, especially with Intel Arc and hybrid graphics. [discourse.ubuntu+1](#)

### 4.4. Missing wine32 / multiarch issues

On Ubuntu 24.04, Wine 9.0 often complains:

it looks like wine32 is missing, you should install it.

Even for 64-bit apps, a full Wine install needs `wine32:i386`:

```
bashsudo apt-get install wine32:i386 wine64
```

Otherwise, some apps may crash or misbehave. [winehq+1](#)

---

## 5. Using the backtrace to decide next steps

After you get the gdb backtrace:

- If the crash is in Wine DLLs (`ntdll`, `kernelbase`, `wow64`):
  - Try a different Wine branch/version (stable → staging, or newer Wine).
  - Recreate the prefix.
- If the crash is in your app’s code:
  - Check for app patches, compatibility settings, or specific DLL overrides.
  - Use `winetricks` to install missing runtimes (e.g., `vcrun`, `dotnet`) if relevant.

- If the crash is in graphics/directx paths:
  - Disable DXVK or test without hardware acceleration.
  - Update GPU drivers and try X11 instead of Wayland.

## 6. Minimal working recipe for your case

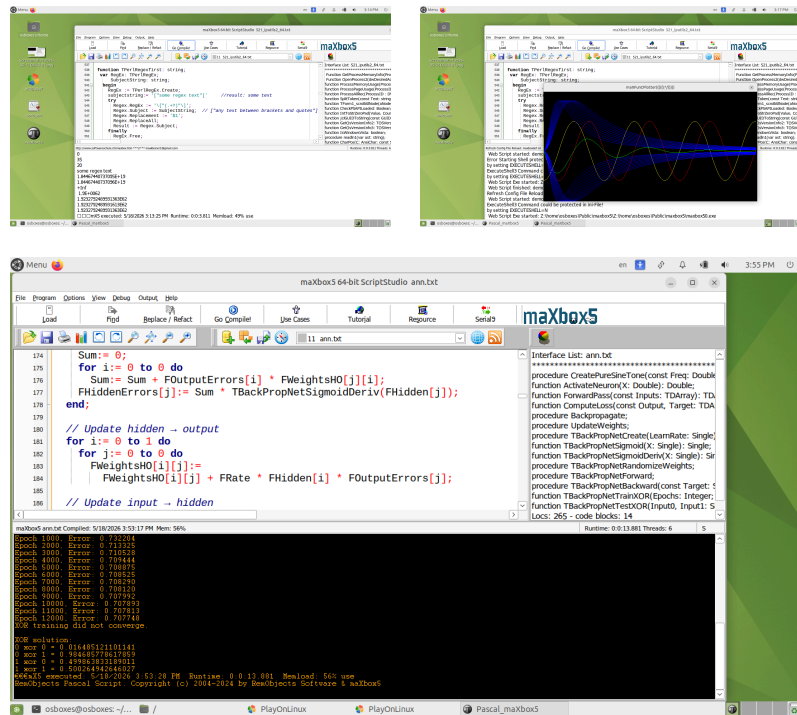
Given Ubuntu 24.04 + Wine 9.0 64-bit crashes:

1. Ensure multiarch and wine32: `bashsudo dpkg --add-architecture i386 sudo apt update sudo apt install wine32:i386 wine64 gdb`
2. Try a clean 64-bit prefix: `bashmv ~/.wine ~/.wine.bak wine64 your_app.exe`
3. If it still crashes, debug with `gdb: bashexport WINELOADERNOEXEC=1 gdb --args wine64 your_app.exe` Inside `gdb: textset follow-fork-mode child set follow-exec-mode new run #` on crash: `bt full info registers`
4. If the backtrace shows Wine/graphics issues:
  - Install Wine Staging and test: `bashsudo apt install --install-recommends winehq-staging WINEPREFIX=~/.wine-staging-prefix /opt/wine-staging/bin/wine your_app.exe`
  - Or test with Steam Proton if it's a game.

If you tell me in maXbox:

- the exact app/game name,
- whether it's a game or a regular Windows app,
- and whether you're on NVIDIA/Intel/AMD graphics,

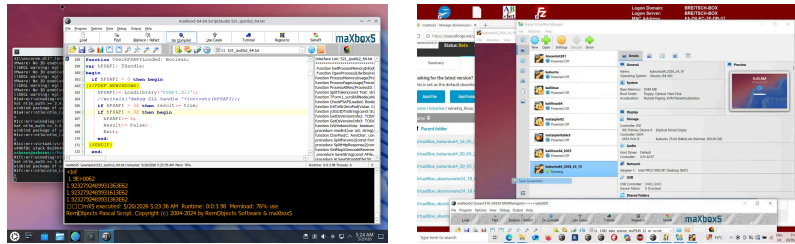
I can give you a precise set of commands and configuration changes (including specific DLL overrides and DXVK settings) for your case.



V 5.0.122 runs on WineHQ 64-bit

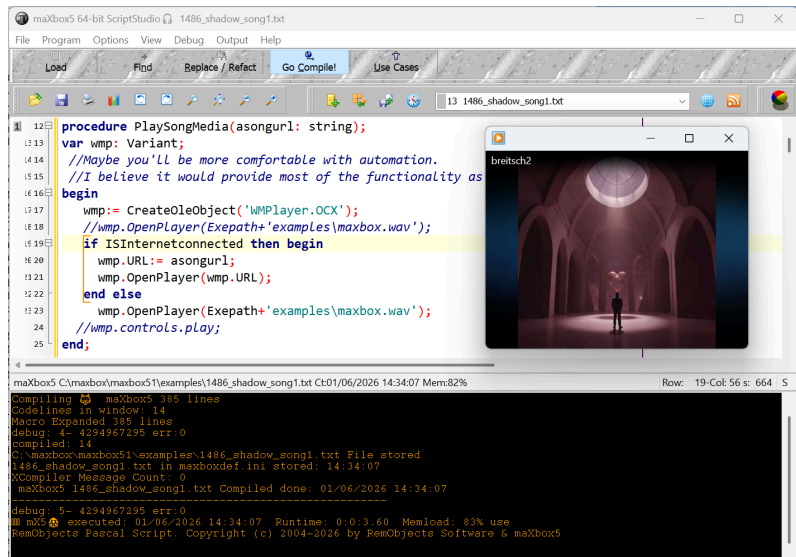
Version	Description	Latest Rating	Latest Wine version tested	Test results	Comments
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4.7.6.50	Release Notes maXbox 4.7.6.50 June 2023 mX476	Platinum	8.5	1	2
5.0.1.22	V5.0.2.90 Jan 2024: 64-bit beta 🚧, AsyncPro, 64bitPython, LockBox64, Indy10, SynEdit, D11.3 🚧	Silver	10.12	1	1
5.2.9.198	Release Notes maXbox 5.2.9.198 September 2025 mX529 beta64-bit 🚧	Garbage	11.0	1	1
5.2.9.198	Release Notes maXbox 5.2.9.198 September 2025 mX529 beta64-bit 🚧	Garbage	11.0	1	1

WineHQ – maXbox



MX5 on Kubuntu 24.10

Play a song from URL



[https://sourceforge.net/projects/maxbox5/files/examples/1486\\_shadow\\_song1.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1486_shadow_song1.txt/download)

maXbox uses OLE/COM automation here, i.e., the dynamic control of an external ActiveX object, instead of implementing its own audio function. This allows the code to play media via URL or local file without having to write a decoder itself.

```
PlaySongMedia(SONG_URL);
```

This procedure is a small wrapper around the Windows Media Player COM object, used to play either an online audio file or a local fallback file.

What each part does

- `procedure PlaySongMedia(asongurl: string);` defines a routine that receives one text parameter: the media URL or file path.
- `var wmp: Variant;` declares a late-bound object variable, which is convenient for automation objects like COM/ActiveX.
- `wmp:= CreateOleObject('WMPPlayer.OCX');` creates an instance of the Windows Media Player control.
- `if ISInternetconnected then ... else ...` chooses between the given song URL and a bundled local WAV file.
- `wmp.URL:= asongurl;` sets the media source to the input string.
- `wmp.OpenPlayer(wmp.URL);` opens and plays that media source through Windows Media Player.

#### Flow in plain English

1. Create a Windows Media Player object.
2. Check whether the computer is online.
3. If online, use the supplied song address.
4. If offline, use a local example WAV file.
5. Tell the player to open and play the selected source.

#### Important details

The code relies on COM automation, so it works only on Windows where the Media Player control is available. It does not include error handling, so a bad URL, missing file, or player creation failure could raise an exception. The commented line `wmp.controls.play;` would be another way to start playback, but `OpenPlayer` already handles the launch here.

#### One subtle point and error handling

`Variant` is used instead of a strongly typed interface, which makes the code flexible but also less safe at compile time. In practice, that means maXbox can talk to the player without importing a specific type library.

In maXbox (which uses Delphi-like Object Pascal), you add error handling for missing files in COM code by combining:

1. `FileExists` to check if a local file exists before using it
2. `try...except` to catch COM and runtime exceptions
3. Optional custom error messages/logs in the `except` block

This prevents crashes when files are missing or the COM object fails.

[softwareschule]

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## Complete Example: PlaySongMedia with Error Handling

```
textprocedure PlaySongMedia(asongurl: string);
var
  wmp: Variant;
  localFile: string;
  errorMsg: string;
begin
  localFile := Exepath + 'examples\maxbox.wav';
  wmp := Unassigned; // Initialize variable
```

```

try
  // 1. Check file existence before using it
  if ISInternetconnected and (asongurl <> '') then begin
    // For online URLs, you could add timeout/retry logic here
    wmp := CreateOleObject('WMPPlayer.OCX');
    wmp.URL := asongurl;
  end else begin
    // 2. Fallback: check local file exists
    if not FileExists(localFile) then
      raise Exception.Create('Local file not found: ' +
localFile);

    wmp := CreateOleObject('WMPPlayer.OCX');
    wmp.URL := localFile;
  end;

  // 3. Start playback
  wmp.OpenPlayer(wmp.URL);
  writeln('Playing: ' + wmp.URL);

except
  on E: Exception do begin
    errorMsg := 'Error playing media: ' + E.Message;
    writeln(errorMsg);
    // Optional: log to file, show message box, or use
fallback
  end;
end;
end;

```

---

### Key Points

Technique	Purpose
FileExists(path)	Check if local file exists before passing to COM [ <a href="#">groups.google</a> ]
try...except	Catch COM errors, missing files, or runtime exceptions [ <a href="#">softwareschule</a> ]
on E: Exception do	Access the error message via E.Message [ <a href="#">softwareschule</a> ]
raise Exception.Create(...)	Manually trigger error when file is missing [ <a href="#">softwareschule</a> ]
Unassigned	Initialize variant to avoid undefined state

---

### Why This Works

- Pre-check with FileExists avoids passing invalid paths to COM[[groups.google](#)]
- try...except catches COM failures like WMPPlayer.OCX not being registered or player creation failing[[stackoverflow](#)]

- Graceful degradation: if the online URL fails, you fall back to a local file; if that's missing too, you get a clear error message instead of a crash[[es.scribd](#)]

---

### Alternative: Silent Fallback Without Raising

If you want to silently skip playback instead of raising an exception:

```

textif not FileExists(localFile) then
begin
  writeln('Warning: Fallback file not found, skipping
  playback');
  Exit; // Exit procedure early
end;

```

This is useful when missing files are expected and not truly errors.

---

Let me know if you want:

- A version that logs errors to a file
- Retry logic for network URLs
- Message box popup instead of console output

```

1  const SONG_URL = 'http://softwareschule.ch/download/shadow.mp
2
3  procedure PlaySongMedia(asongurl: string);
4  var wmp: Variant;
5      //Maybe you'll be more comfortable with automation.
6      //I believe it would provide most of the functionality as in
7  begin
8      wmp:= CreateOleObject('WMPlayer.OCX');
9      //wmp.OpenPlayer(Exepath+'examples\maxbox.wav');
10     if ISInternetconnected then begin
11         wmp.URL:= asongurl;
12         wmp.OpenPlayer(wmp.URL);
13     end else
14         wmp.OpenPlayer(Exepath+'examples\maxbox.wav');
15     //wmp.controls.play;
16 end;
17
18 PlaySongMedia(SONG_URL);

```

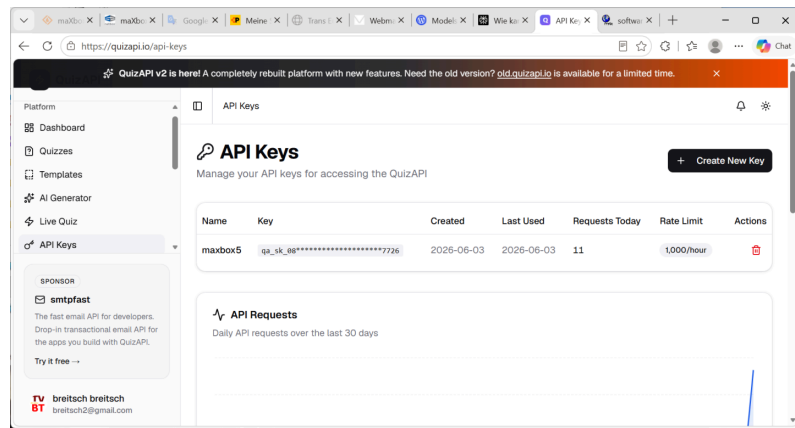
You can access many Windows Media Player properties and methods via `CreateOleObject('WMPlayer.OCX')` in maXbox using late-bound `Variant` access. The main objects are:

- `wmp` – the player itself
- `wmp.controls` – playback control (play, pause, stop, position, etc.)
- `wmp.settings` – volume, mute, rate, autoStart, etc.
- `wmp.currentMedia` – info about the current song/video
- `wmp.currentPlaylist` – playlist info
- `wmp.URL`, `wmp.playState`, `wmp.uiMode` – basic player properties

All of these work with a `Variant` in maXbox/Delphi.

## QUIZ-API

Build, generate, and embed quizzes with a powerful REST API. AI-powered question generation, real-time leaderboards, and embeddable widgets — everything you need in one platform.



QuizAPI – Developer-First Quiz Platform

To call a quiz API with maXbox, you essentially only need an HTTP GET (or POST) request to the endpoint, followed by some JSON parsing, all in the familiar Delphi/maXbox style using COM or Indy-like components.

```

1  {$I .\NINJAAPIKEY2.INC}
2
3  const
4      QUIZ_APIKEY2 = 'qa_sk_08ff_____your own api key';
5      SONG_URL = 'http://softwareschule.ch/download/shadow.mp3';
6      API_URL = 'https://quizapi.io/api/v1/questions?limit=2';
7      API_URL_LIST = 'https://quizapi.io/api/v1/quizzes?limit=5';
8      API_URL_TOPIC = 'https://quizapi.io/api/v1/quizzes?topic=py';
9
10 function GetQuizAPI(aAPI_URL:string): string;
11 var
12     XMLhttp: OleVariant;
13 begin
14     XMLhttp:= CreateOleObject('msxml2.xmlhttp'); // from Start
15     XMLhttp.open('GET', aAPI_URL, False);
16     XMLhttp.setRequestHeader('Authorization', 'Bearer ' + QUIZ_AP
17     XMLhttp.setRequestHeader('Content-Type', 'application/json')
18     XMLhttp.send('');
19
20     if XMLhttp.status = 200 then begin
21         Result:= XMLhttp.responseText;
22         //: maXbox-JSON-Objects parsen 'question', 'answers', 'co
23     end else
24         writeln('OLE_HTTP-Error: ' + IntToStr(XMLhttp.status));
25     XMLhttp:= unassigned;
26 end;
```

This function sends an authenticated HTTP GET request to a Quiz-API and returns the raw JSON response as a string, or prints an error if the call fails.

### Conclusion

You can call a Quiz API from maXbox the same way you would from Delphi: create an HTTP client, send a GET or POST request, then parse the JSON response. maXbox is a Pascal script engine built on Delphi, so COM/XMLHTTP or Indy-style HTTP access both fit well.

Typical approach is to use one of these patterns:

- GET for fetching quiz questions.
- POST for submitting answers or starting a quiz session.
- Set **Accept: application/json** and **Content-Type: application/json** when sending JSON payloads.

```

function GetQuizAPI(aAPI_URL:string): string;
var
  XMLhttp: OleVariant;
begin
  XMLhttp:= CreateOleObject('msxml2.xmlhttp'); // from Starter-Doku-Style[]
  XMLhttp.open('GET', aAPI_URL, False);
  XMLhttp.setRequestHeader('Authorization','Bearer '+ QUIZ_APIKEY); //from external include file
  XMLhttp.setRequestHeader('Content-Type','application/json');
  XMLhttp.send('');
  if XMLhttp.status = 200 then begin
    Result:= XMLhttp.responseText;
    //: maXbox-JSON-Objects parsen 'question', 'answers', 'correct_answer[]
  end else
end

```

```

{
  "page": 1,
  "lastPage": 5917,
  "limit": 2,
  "offset": 0,
  "links": {
    "first": "\api\v1\questions?limit=2&offset=0",
    "last": "\api\v1\questions?limit=2&offset=11832",
    "next": "\api\v1\questions?limit=2&offset=2",
    "prev": null
  }
}

```

maXbox5 executed: 03/06/2026 12:02:38 Runtime: 0:0:2.606 Memload: 71% use  
RemObjects Pascal Script. Copyright (c) 2004-2026 by RemObjects Software & maXbox5

[https://sourceforge.net/projects/maxbox5/files/examples/1487\\_quiz\\_api1.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1487_quiz_api1.txt/download)

Based on the QuizAPI documentation, here's a complete maXbox script that sends a POST request to create a new quiz at

<https://quizapi.io/api/v1/quizzes> [page:quizapi-quizzes]:[quizapi]

```

text// maXbox Script: POST request to QuizAPI to create a quiz
// Run in maXbox IDE (Object Pascal script engine)
// Requires: Free QuizAPI account and API key from
https://quizapi.io

```

uses ActiveX, MSXML2\_TLB, Variants, SysUtils, Classes;

```

var
  http: IXMLHTTP;
  url, body, resp, statusText: string;
begin
  CoInitialize(nil);
  try
    // QuizAPI base URL for creating quizzes
    url := 'https://quizapi.io/api/v1/quizzes';

    // JSON payload for creating a quiz (required fields: title,
    difficulty)
    // Adjust title, description, category, difficulty, and tags
    as needed
    body := '{' +
      ' "title": "Delphi Programming Quiz",' +
      ' "description": "Test your knowledge of Delphi and
Object Pascal",' +
      ' "category": "Programming",' +
      ' "difficulty": "MEDIUM",' +
      ' "tags": ["delphi", "pascal", "programming"],' +
      ' "published": true' +
      ' }';

    writeln('=== QuizAPI POST Request ===');
    writeln('URL: ' + url);
    writeln('Request Body:');
    writeln(body);
    writeln('');

```

```

// Create HTTP client via COM (XMLHTTP)
http := CoXMLHTTP.Create;

// Open POST request (synchronous, third param = False)
http.open('POST', url, False, '', '');

// Set required headers
http.setRequestHeader('Content-Type', 'application/json');
http.setRequestHeader('Accept', 'application/json');

// IMPORTANT: Replace with your actual API key from
https://quizapi.io/dashboard
// Get your key by signing up for a free account
http.setRequestHeader('Authorization', 'Bearer
YOUR_API_KEY_HERE');

// Send request
http.send(body);

// Check response
statusText := http.statusText;
resp := http.responseText;

writeln('HTTP Status: ' + IntToStr(http.status) + ' ' +
statusText);
writeln('');
writeln('Response Body:');
writeln(resp);
writeln('');

// Error handling
if http.status = 201 then
    writeln('✓ Quiz created successfully!')
else if http.status = 401 then
    writeln('X Error: Unauthorized - Check your API key')
else if http.status = 400 then
    writeln('X Error: Bad request - Check your JSON payload')
else if http.status = 429 then
    writeln('X Error: Rate limit exceeded')
else if http.status <> 200 then
    writeln('X Error: POST failed with status ' +
IntToStr(http.status));

except
    on E: Exception do
        writeln('Exception: ' + E.ClassName + ': ' + E.Message);
finally
    CoUninitialize;
end;
end.

```

**Key steps to use this script:**

Step	Action
1	Sign up at <a href="https://quizapi.io">quizapi.io</a> for a free account [ <a href="https://quizapi.io">quizapi</a> ]
2	Generate an API key from your dashboard [ <a href="https://quizapi.io">quizapi</a> ]
3	Replace YOUR_API_KEY_HERE with your actual API key
4	Adjust the quiz title, description, category, difficulty, and tags as needed [ <a href="https://quizapi.io/page:quizapi-quizzes">page:quizapi-quizzes</a> ]
5	Run in maXbox IDE

**Expected response on success (HTTP 201):**

```

json{
  "success": true,
  "data": {
    "id": "quiz_new789",
    "title": "Delphi Programming Quiz",
    "description": "Test your knowledge of Delphi and Object
Pascal",
    "category": "Programming",
    "difficulty": "MEDIUM",
    "tags": ["delphi", "pascal", "programming"],
    "published": true
  }
}

```

**Alternative: GET request to fetch quiz questions**

If you actually wanted to fetch questions instead of creating a quiz, QuizAPI uses a GET request:

```

texthttp.open('GET', 'https://quizapi.io/api/v1/questions?
limit=5&difficulty=EASY', False, '', '');
http.setRequestHeader('Authorization', 'Bearer
YOUR_API_KEY_HERE');
http.send(EmptyParam);

```

Let me know if you want the script adjusted for a different QuizAPI endpoint (e.g., fetching questions, listing quizzes, or batch importing questions). [[quizapi](https://quizapi.io)]

```

1 import requests
2
3 response = requests.get(
4     "https://quizapi.io/api/v2/quizzes",
5     headers={
6         "Authorization": "Bearer qz_live_abc123",
7         "Content-Type": "application/json",
8     },
9     params={
10        "topic": "javascript",
11        "limit": 5,
12    },
13 )
14
15 data = response.json()
16 print(f"Found {data['total']} quizzes")

```

Based on the QuizAPI documentation, here's a complete maXbox tested script that sends a POST request to create a new quiz at <https://quizapi.io/api/v1/quizzes> [page:quizapi\_quizzes]:

```

1 // maXbox Script: POST request to QuizAPI to create a quiz
2 // Run in maXbox IDE (Object Pascal script engine)
3 // Requires: Free QuizAPI account and API key from https://qu
4
5 //uses ActiveX, MSXML2_TLB, Variants, SysUtils, Classes;
6
7 function PostQuizAPI(aAPI_URL:string): string;
8 var
9     //http: IXMLHTTP;
10    Xhttp: OleVariant;
11    url, body, resp, statusText: string;
12 begin
13     // CoInitialize(nil);
14     try
15         // QuizAPI base URL for creating quizzes
16         url := 'https://quizapi.io/api/v1/quizzes';
17
18         // JSON payload for creating a quiz (required fields: tit
19         // Adjust title, description, category, difficulty, and t
20         body := '{' +
21             '  "title": "Delphi Programming Quiz",' +
22             '  "description": "Test your knowledge of Delphi'
23             '  "category": "Programming",' +
24             '  "difficulty": "MEDIUM",' +
25             '  "tags": ["delphi", "maXbox","pascal", "program
26             '  "published": true' +
27             '}'';
28
29         writeln('=== QuizAPI POST Request ===');
30         writeln('URL: ' + url);
31         writeln('Request Body:');
32         writeln(body);
33         writeln('');
34
35         // Create HTTP client via COM (XMLHTTP)
36         xhttp:= CreateOleObject('msxml2.xmlhttp'); //CoXMLHTTP.C
37
38         // Open POST request (synchronous, third param = False)
39         xhttp.open('POST', url, False, '', '');
40
41         // Set required headers
42         xhttp.setRequestHeader('Content-Type', 'application/json')
43         xhttp.setRequestHeader('Accept', 'application/json');
44
45         // IMPORTANT: Replace your actual API key from https://qu
46         // Get your key by signing up for a free account
47         xhttp.setRequestHeader('Authorization', 'Bearer ' + QUIZ_AP
48         // Send request
49         xhttp.send(body);
50
51         // Check response
52         statusText:= xhttp.statusText;
53         resp:= xhttp.responseText;
54
55         writeln('HTTP Status: ' + IntToStr(xhttp.status) + ' ' +
56         writeln('Response Body:');
57         writeln(resp);
58         writeln('');
59
60         // Error handling
61         if xhttp.status = 201 then
62             writeln('✓ Quiz created successfully!')
63         else if xhttp.status = 401 then
64             writeln('X Error: Unauthorized - Check your API key')
65         else if xhttp.status = 400 then
66             writeln('X Error: Bad request - Check your JSON payload')
67         else if xhttp.status = 429 then
68             writeln('X Error: Rate limit exceeded')
69         else if xhttp.status <> 200 then
70             writeln('X Error: POST failed with status ' + IntToStr(
71
72     except
73         //on E: Exception do
74         //writeln('Exception: ' + E.ClassName + ': ' + E.Messag
75         writeln(ExceptionToString(ExceptionType, ExceptionParam
76     finally
77         //CoUninitialize;
78         Xhttp:= unassigned;

```

```
79 | end;
80 | end;
```

[https://sourceforge.net/projects/maxbox5/files/examples/1487\\_quiz\\_api12.txt/download](https://sourceforge.net/projects/maxbox5/files/examples/1487_quiz_api12.txt/download)

debug: 106- 4294967295 err:0

=== QuizAPI POST Request ===

URL: <https://quizapi.io/api/v1/quizzes>

Request Body:


```
{ "title": "Delphi Programming Quiz", "description": "Test your knowledge of
Delphi and Object Pascal", "category": "Programming", "difficulty": "MEDIUM",
"tags": ["delphi", "maXbox", "pascal", "programming"], "published": true }
```

HTTP Status: 403 Forbidden

Response Body:

```
{ "success": false, "error": "Quiz creation via API is available on Starter and Pro
plans. Please upgrade to continue." }
```

? Error: POST failed with status 403

mX5  executed: 03/06/2026 14:13:43 Runtime: 0:0:2.536 Memload: 57% use  
RemObjects Pascal Script. Copyright (c) 2004-2026 by RemObjects Software  
& maXbox5

#### Key details about this endpoint [page:quizapi\_quizzes]:

Parameter	Value	Description
Method	GET	Lists quizzes (no body needed)
URL	<a href="https://quizapi.io/api/v1/quizzes">https://quizapi.io/api/v1/quizzes</a>	Base endpoint
Auth	Authorization: Bearer YOUR_API_KEY	Required
Rate limit	20 requests/min	Free tier [page:quizapi_quizzes]

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