Wolfram Language

Gallery of Tweetable Programs
The Wolfram Language allows programmers to operate at a significantly higher level than ever before by leveraging built-in computational intelligence that relies on a vast depth of algorithms and real-world knowledge carefully integrated over three decades. Scalable for programs from tiny to huge, with immediate deployment locally and in the cloud, the Wolfram Language builds on clear principles—and an elegant unified symbolic structure—to create what is emerging as the world's most productive programming language and the first true computational communication language for humans and AIs. This gallery shows a few examples of tiny programs in the Wolfram Language—and the big things they can do...
<table>
<thead>
<tr>
<th>Core Language &amp; Structure</th>
<th>Data Manipulation &amp; Analysis</th>
<th>Visualization &amp; Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine Learning</td>
<td>Symbolic &amp; Numeric Computation</td>
<td>Strings &amp; Text</td>
</tr>
<tr>
<td>Graphs &amp; Networks</td>
<td>Images</td>
<td>Geometry</td>
</tr>
<tr>
<td>Sound</td>
<td>Knowledge Representation &amp; Natural Language</td>
<td>Time-Related Computation</td>
</tr>
<tr>
<td>Geographic Data &amp; Computation</td>
<td>Scientific and Medical Data &amp; Computation</td>
<td>Engineering Data &amp; Computation</td>
</tr>
<tr>
<td>Financial Data &amp; Computation</td>
<td>Social, Cultural &amp; Linguistic Data</td>
<td>Higher Mathematical Computation</td>
</tr>
<tr>
<td>Notebook Documents &amp; Presentation</td>
<td>User Interface Construction</td>
<td>System Operation &amp; Setup</td>
</tr>
<tr>
<td>External Interfaces &amp; Connections</td>
<td>Cloud &amp; Deployment</td>
<td>Recent Features</td>
</tr>
</tbody>
</table>
Graphics[{{White, Riffle[NestList[Scale[Rotate[#, 0.1], 0.9] &, Rectangle[], 40], {Purple, Red}]}}]
c = EntityValue[CityData[{Large, "France"}], "Position"]; GeoGraphics[{Red, Thick, Line@c[[Last[FindShortestTour[c]]]]}]
Graphics[Table[Rotate[Text[Style[\[WolframLanguageLogo],120, FontFamily->"Times"],\{1,1.5\}],i 2 Pi/5,\{0,0\},\{\{1,5\}\}]}}
ArrayPlot[CellularAutomaton[{1635, {3, 1}}, {{1}, 0}, 500], ColorFunction -> (Hue[.1 + .5#] &)]
GeoRegionValuePlot[california["Subdivisions"]->"PerCapitaIncome"]
SmoothHistogram[Legended[First /@ StringPosition[ExampleData@"Text", "AliceInWonderland"], #], #] & /@ {"Alice", "Queen"}, Filling -> Axis]
Grid@Partition[DeleteMissing[#"Image"] & /@
Take[Samuel Jackson["MovieAppearances"], 24]], 6]
ParametricPlot3D[1.2^v \{\cos[v] (1 + \cos[u]),
-\sin[v] (1 + \cos[u]), -2 (1 + \sin[u])\}, {u, 0, 2 \pi}, {v, -15, 6},
PlotRange -> All, PlotPoints -> 40]
p = PixelValuePositions[Binarize[Rasterize[Style[\[WolframLanguageLogoCircle], 80]]], 0];
Graphics[Line[p[[FindShortestTour[p][[2]]]]]]
Graphics3D[{RGBColor[#/5], Opacity[.8], Cuboid[#, # + .8]} & /@ Tuples@Table[Range[5], {3}]]
Grid[Partition[Column[#, DominantColors[#]], Alignment -> Center] & /@ (#["Image"] & /@ RandomSample[van gogh artwork, 9]), 3]]
ContourPlot[Evaluate[Re[Product[x + I y - (a + I b), {a, -5, 5}, {b, -5, 5}]]],
  {x, -5, 5}, {y, -5, 5}, ColorFunction -> "SolarColors"]
c = spock curve equation [t]; ParametricPlot[Evaluate[Sign[#] Abs[#]^(2/3) &@c], {t, 0, 72 Pi}, Exclusions -> None]
Graphics3D[{Red, Specularity[White, 70], KnotData[{8, 3}, "ImageData"]},
Boxed -> False, ViewPoint -> {0, 0.1, 5}]
NestList[EdgeDetect, BarcodeImage[
    "http://wolframtap.tumblr.com", "QR"], 3]
GeoGraphics[{EdgeForm[Black], GeoStyling["Image", #["Flag"]], Polygon[#]} & /@ african countries], GeoBackground -> White]
Get Started with the Wolfram Language:

Elementary Introduction to the Wolfram Language
wolfr.am/eiwl

Fast Introduction for Programmers
wolfr.am/fastintro

Free Wolfram Language Courses
wolfram.com/wolfram-u

Gallery of Tweetable Programs
wolframtap.tumblr.com

Learn how to tweet a program: wolfr.am/tweet-a-pgm

© The Wolfram Companies. Trademarks: Wolfram, Wolfram Language. All other trademarks, service marks, registered trademarks and registered service marks are the property of their respective owners. MKT1199 COL-473 12.18vt