

Programming

Visual Programming

- [Max/MSP](#)
- [VVVV](#)
- [Pure Data](#)
- [TouchDesigner](#)

Programming Frameworks/Libraries

- [OpenFrameworks](#)
- [Cinder](#)
- [OpenCV](#)
- [Processing/P5.js/Processing.py](#)
- [D3.js](#)
- [Python](#)
- [Python Image Processing](#)

APP Connector - Task Automation - Cloud Services

<https://zapier.com>

<http://crossbar.io>

<https://relayr.io/cases/smart-cities/>

<http://crossbar.io>

<http://macchina.io>

Video Mapping

- [Resolume Arena](#)
- [MadMapper/Modul8](#)
- <http://www.blendydomevj.com>
- [Millumin](#)

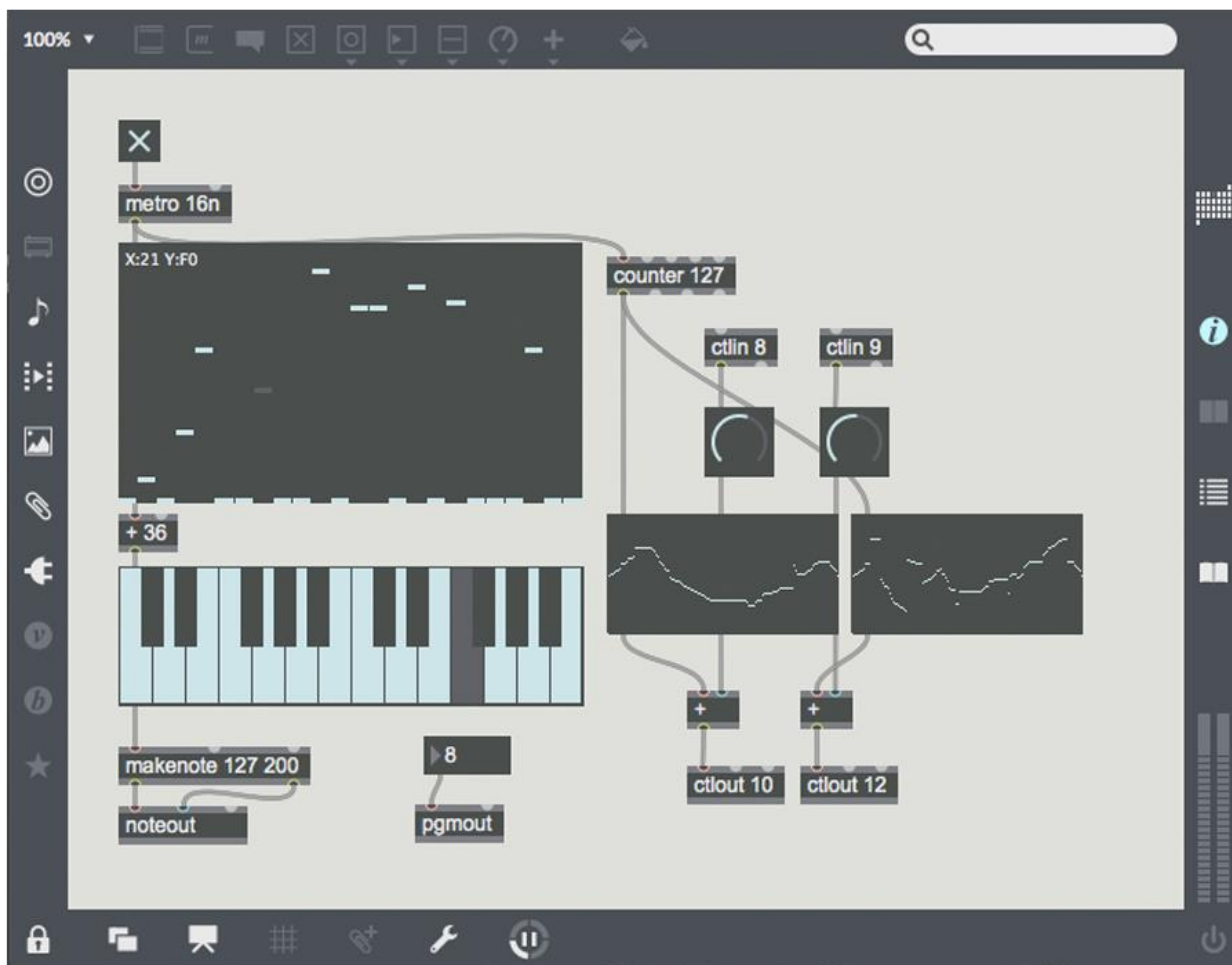
Video Bearbeitungstools

<https://www.ffmpeg.org/> cross-platform solution to record, convert and stream audio and video.

<https://www.lwks.com/> Non-Linear Editing (NLE) software – Free and Pro

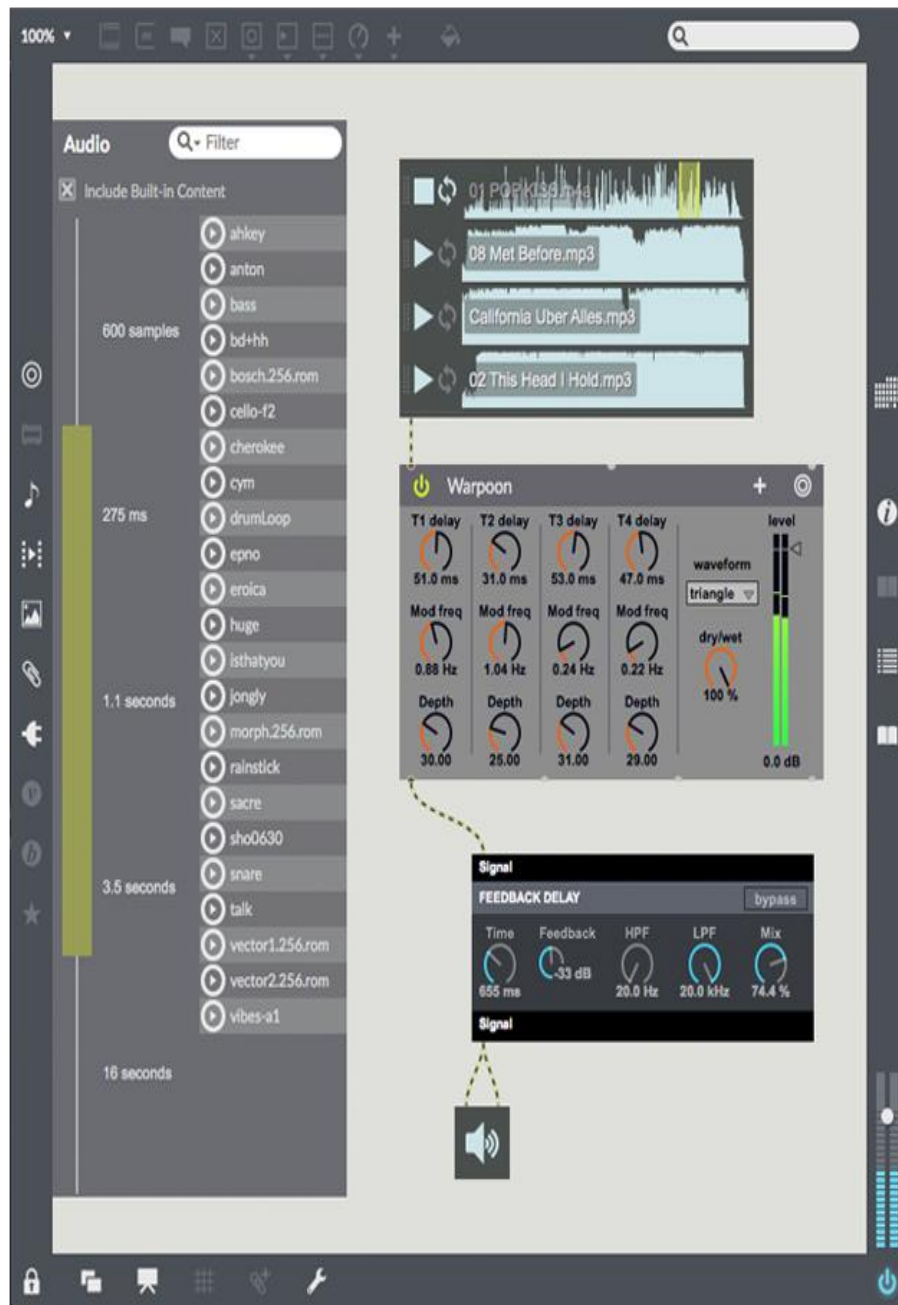
MSP/MAX

Patch inside Max



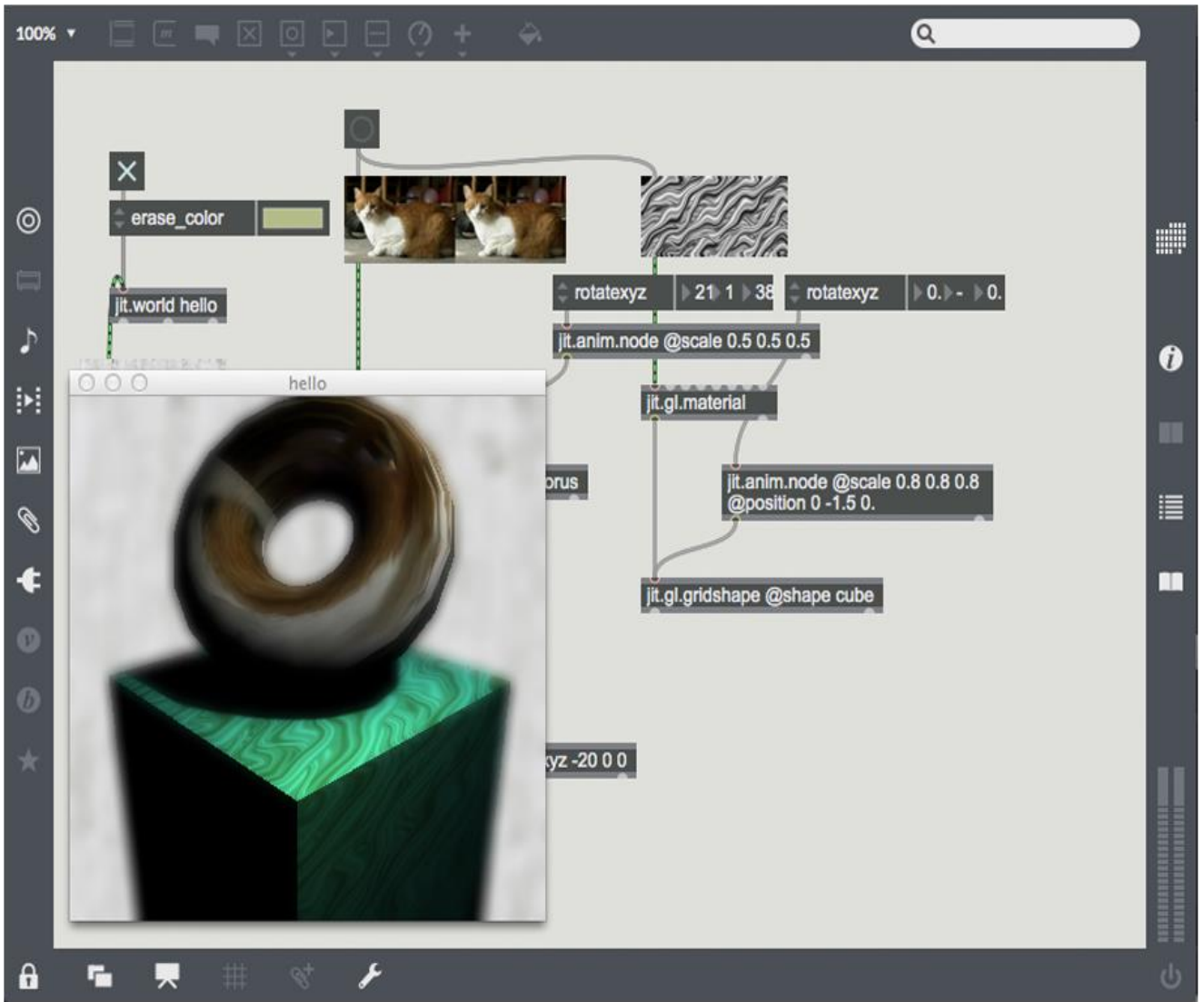
MAX: MIDI DATA AT YOUR FINGERTIPS

Connect your Max patches to the wide universe of MIDI and other external controllers. Use Max's user interface objects to make your own control interfaces with full support for MIDI/MPE, and OSC protocols.



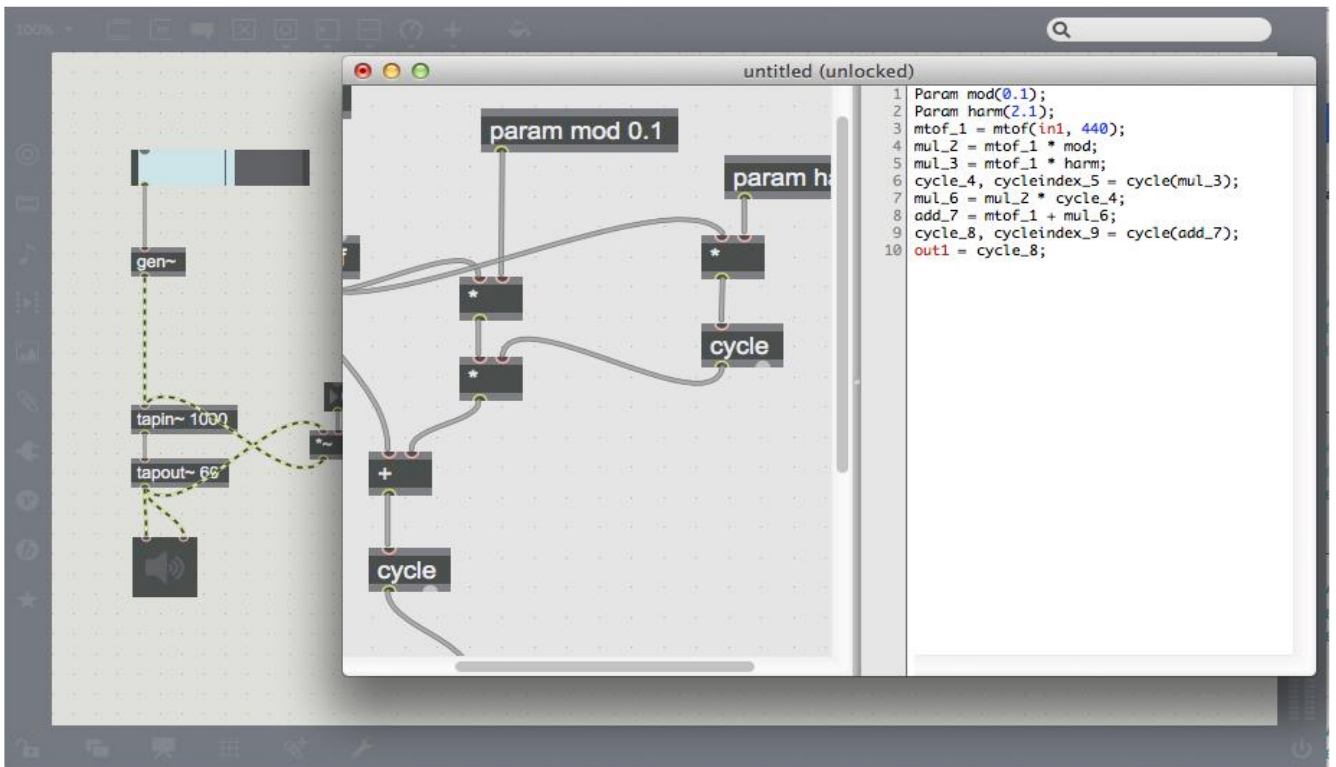
MSP: THE ULTIMATE SONIC TOOLKIT

Make your own unique synths, or craft your own swirling webs of delay. Teach your audio samples new tricks by using algorithms of your design, automation, and external hardware.



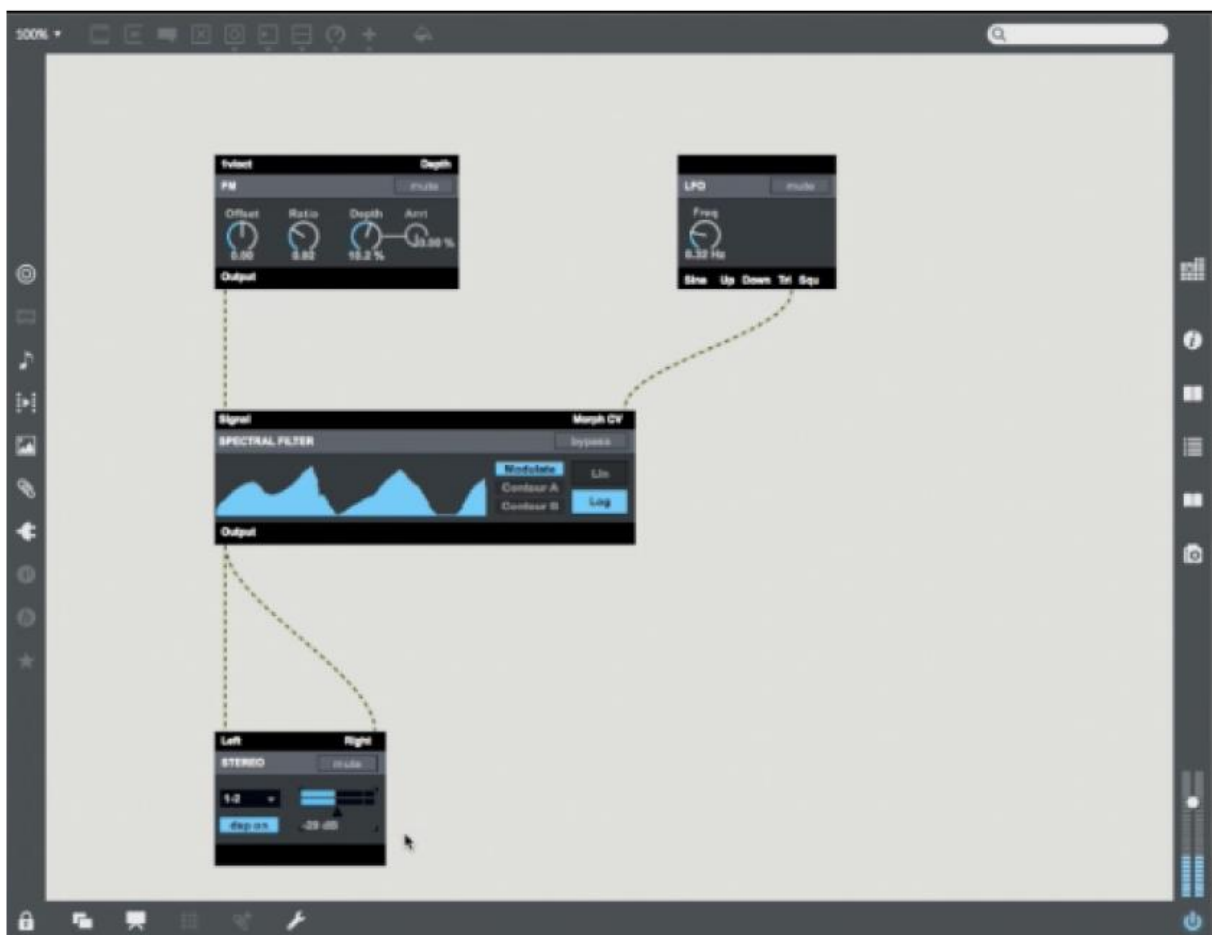
JITTER: BEYOND EVERYDAY VIDEO EFFECTS

Combine Max's flexibility with Jitter – real-time video, 3D/2D vector graphics, and effects. Experiment with audio-to-video control (and vice-versa) to create your own video processing routing and feedback systems.



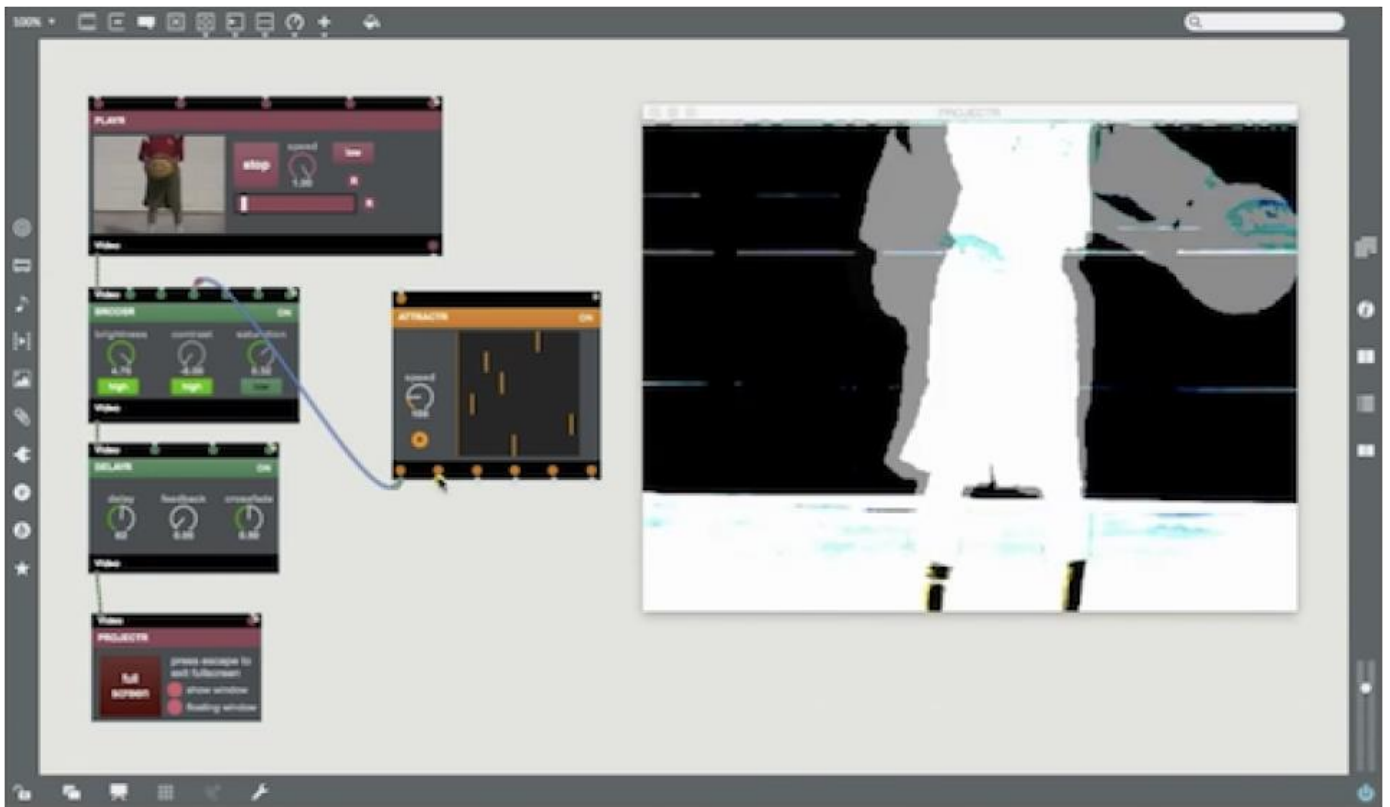
GEN: FLEXIBLE AUDIO/VIDEO PROCESSING

Gen integrates Max's familiar visual patching environment with the power of real-time code generation and compilation.



BEAP: SYNTH AND SOUND MODULES

BEAP provides a robust library of high-level modules that you'll know and love from the analog synth world. Patch them up and interface them with your own analog synth modules for a world of new possibilities and sounds.



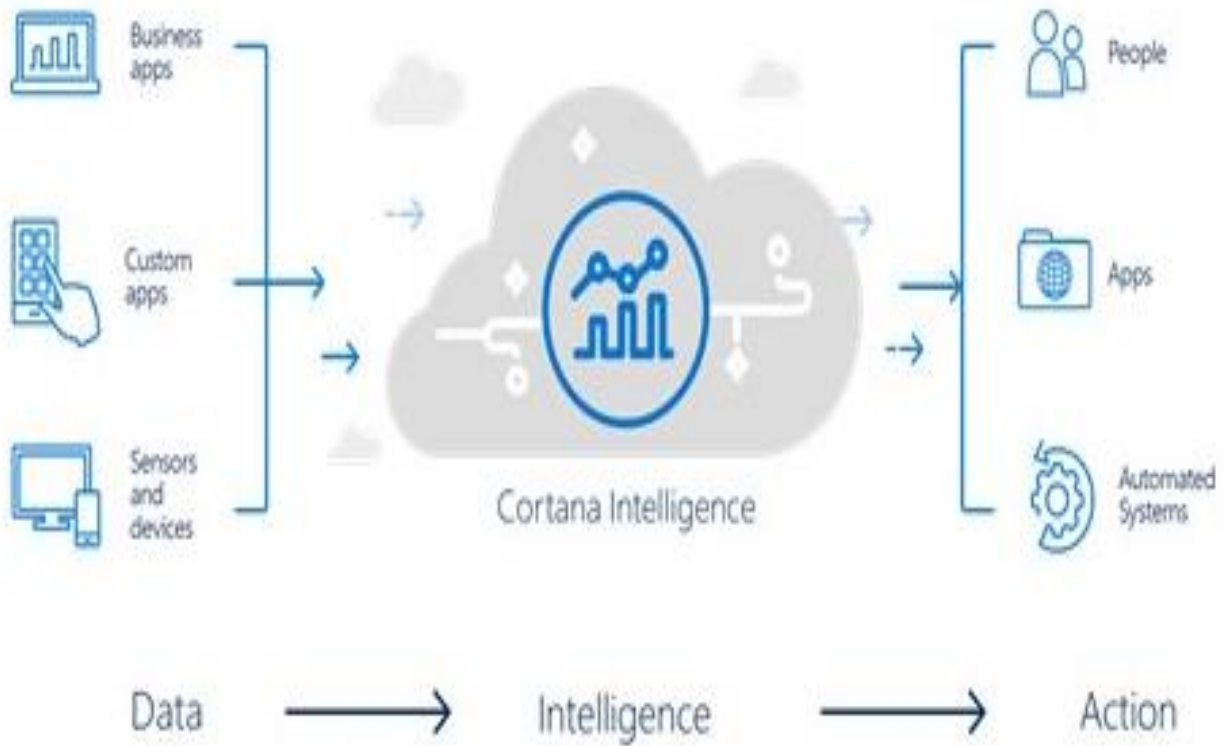
VIZZIE: VISUAL MANIPULATION MODULES

Vizzie's high-level visual processing modules let you make everything from VJ rigs or interactive video work with real-time controls to little patches that do amazing things with your webcam.

Cloud Services

Moderne Bildverarbeitungsalgorithmen zum Erstellen von Apps mit einem höheren Grad an Personalisierung durch intelligente Funktionen wie z. B. Gesichts-, Bild- und Emotionserkennung.

<https://azure.microsoft.com/de-de/services/cognitive-services/>



<https://www.microsoft.com/cognitive-services/en-us/apis>

Create

Cognitive Services account - PREVIEW

API type

PREVIEW

Cognitive Services is a collection of APIs that enable natural and contextual interaction with tools that augment users' experiences via the power of machine learnt models from Microsoft. [Learn more](#)

* Account name

 ✓

* API type

Emotion API >

* Pricing tier

Configure required settings >

* Subscription

 ▼

* Resource group

Create new Use existing


 ✓


* Location


 ▼


* Legal terms


Review legal terms >


 **Emotion API**
Personalize experiences with emotion recognition.


 **Face API**
Detect, identify, analyze, organize, and tag faces in photos.


 **Language Understanding Intelligent Service (LUIS)**
Teach your apps to understand commands from your users.

 **Recommendations API**
Provide personalized product recommendations for your customers.

 **Speaker Recognition API**
Give your app the ability to know who's talking.

 **Bing Speech API**
Convert speech to text and back again, and understand its intent.

 **Text Analytics API**
Detect sentiment, key phrases, topics and language from your text.

 **Web Language Model API**
Leverage the power of language models trained on web-scale data.

<https://www.microsoft.com/cognitive-services/en-us/applications>

<http://www.endless-objects.com/fac3/fac3.html>

<http://www.psfk.com/reports>

<https://www.microsoft.com/en-us/server-cloud/cortana-intelligence-suite/Overview.aspx>

Cloud Services für Interaction Design:

<https://zapier.com/zapbook/>

<https://parser.zapier.com>

<https://ifttt.com>

<https://cylonjs.com/documentation/platforms/>

Projection Mapping / VJ

<https://vimeo.com/channels/madmapper/164981875>



- Resolume Arena
- [MadMapper/Modul8](#)
- <http://www.blendydomevj.com>

MakeyMakey

<http://www.makeymakey.com>

[MaKey MaKey - An Invention Kit for Everyone](#)



<https://www.youtube.com/watch?v=rfQqh7iCcOU>

[MaKey MaKey Music Examples](#)

Eric Rosenbaum



<https://www.youtube.com/watch?v=wkPt9MYqDW0>

[Makey Makey Screaming Carrot](#)



<https://www.youtube.com/watch?v=o4iTQ7lr2W0>

Boards

Shields:

<https://www.sparkfun.com/categories/240?page=all>

<http://shieldlist.org>

Boards

- [Arduino](#)
- [RaspBerryPi](#)
- [Tessel](#)
- [Estruino](#)
- [Beagleboard](#)
- [PyBoard](#)
- <http://www.bareconductive.com>
- <http://www.ototo.fm>
- <http://www.xth.io>
- <http://www.heroicrobotics.com>
- <http://www.linino.org>
- <https://www.particle.io>

Virtual Reality

<https://highfidelity.io>