

Different stuff

- [Git repository handling tips](#)
- [MightyScape versus eCut](#)

Git repository handling tips

HowTo: 2 origins for MightyScape repository

Some notes about the `.git/config` file which contains settings to push to two remotes

```
[core]
  repositoryformatversion = 0
  filemode = false
  bare = false
  logallrefupdates = true
  symlinks = false
  ignorecase = true
[remote "origin"]
  url = https://ACCESSTOKEN@gitea.fablabchemnitz.de/FabLab_Chemnitz/mightyscape-1.2.git
  fetch = +refs/heads/*:refs/remotes/origin/*
  pushurl = https://ACCESSTOKEN@gitea.fablabchemnitz.de/FabLab_Chemnitz/mightyscape-1.2.git
  pushurl = https://ACCESSTOKEN@github.com/eridur-de/mightyscape-1.2.git
[branch "master"]
  remote = origin
  merge = refs/heads/master
[remote "github"]
  url = https://ACCESSTOKEN@github.com/eridur-de/mightyscape-1.2.git
  fetch = +refs/heads/*:refs/remotes/github/*
```

API calls

Gitea has similar API structure like Github:

```
curl -s -k https://api.github.com/repos/eridur-de/mightyscape-1.2 | jq '.size'
curl -s -k https://gitea.fablabchemnitz.de/api/v1/repos/FabLab_Chemnitz/mightyscape-1.2 | jq
'.size'
```

MightyScape versus eCut

eCut is a powerfull addon for CorelDraw and can be used for a lot of things like hot wire cutting, laser cutting or vinyl cutting. But CorelDraw is closed source. I try to find good alternatives using Inkscape. I did some quick comparisons for the listed functions from their website. Most things can be done with Inkscape too - some better, some worse, some different.

| eCut | MightyScape equivalent | eCut | MightyScape equivalent | eCut | MightyScape equivalent |
|--------------------------------------|---|----------------------------------|---|-----------------------------------|---|
| [True shape nesting] | <ul style="list-style-type: none"> • Cutting Optimizer (Nesting) | [Search shapes] | <ul style="list-style-type: none"> • no extension yet | [Replace] | <ul style="list-style-type: none"> • no extension yet |
| [Print/Cut] | <ul style="list-style-type: none"> • See Inkcut | [Create SignBox] | <ul style="list-style-type: none"> • no extension yet | [Reference scale] | <ul style="list-style-type: none"> • Scale To Real • Scale To Path Length |
| [Perimeter] | <ul style="list-style-type: none"> • Extension → Visualize Path → Measure Path | [Create lines] | <ul style="list-style-type: none"> • Grids /Guides | [Create bridges] | <ul style="list-style-type: none"> • Create Links (Breakaway Connectors) |

| eCut | MightyScape equivalent | eCut | MightyScape equivalent | eCut | MightyScape equivalent |
|------------------------|---|-------------------------------|--|-----------------------------------|--|
| [Area] | <ul style="list-style-type: none"> • Extension → Visualize Path → Measure Path | [Create grid] | <ul style="list-style-type: none"> • Grids /Guides | [Variable] | <ul style="list-style-type: none"> • Next Generator |
| [Cost] | <ul style="list-style-type: none"> • no extension yet | [Crop marks] | <ul style="list-style-type: none"> • Printing Marks s Dotte d, or • Trim Mark s, or • Extensions → Render → Layout → Printing Marks | [Hotwire cutting] | <ul style="list-style-type: none"> • no extension yet |

| eCut | MightyScape equivalent | eCut | MightyScape equivalent | eCut | MightyScape equivalent |
|----------------|---|---|---|-----------------|---|
| [Machine time] | <ul style="list-style-type: none"> • Laser Check • can also be done with Inkcut software easily | <ul style="list-style-type: none"> • Laser Check • can also be done with Inkcut software easily | <ul style="list-style-type: none"> • Path → Simplify, or • Extensions → Modify Path → Approximate Curves by Straight Lines (Flatten Bezier), or • Flevo bezier, or • Purge Duplicate Paths • Nodes | [Optimize path] | <ul style="list-style-type: none"> • Optimize Sequence: Travel Distances • Optimize Sequence: Small Holes First • Longest Continuous Paths • Line Sorting |

| eCut | MightyScape equivalent | eCut | MightyScape equivalent | eCut | MightyScape equivalent |
|-------------------------------------|--|-----------------------------------|---|--------------------------------------|---|
| [Weeding lines] | <ul style="list-style-type: none"> Weeding lines with Inksc ape <p>(no extension - lot of manual steps)</p> | [Effects] | <ul style="list-style-type: none"> there are massively more features in Inksc ape/ Might ySca pe | [Finger joint box] | <ul style="list-style-type: none"> Finger-jointed/Tabbed Boxes |
| [Multiply] | <ul style="list-style-type: none"> no extension yet (which creates such cool crosses) | [Edge roll] | <ul style="list-style-type: none"> Unwind Paths | [Finger joint shape] | <ul style="list-style-type: none"> Box Make r-Path To Flex |
| [Rectangle nesting] | <ul style="list-style-type: none"> Fill With Copies | [Contour cutting] | <ul style="list-style-type: none"> easy to do with Union + Path Offset / Offset | [Volume/mass] | <ul style="list-style-type: none"> no extension yet |

| eCut | MightyScape equivalent | eCut | MightyScape equivalent | eCut | MightyScape equivalent |
|------------------------|---|---|---|--------------------------------|------------------------|
| [LEDs] | <ul style="list-style-type: none"> no extension yet. But a lot of pattern tools to do this | [Separate curve] | <ul style="list-style-type: none"> Split Bezier (Subdivide Path) | [Reduce nodes] | |
| [Neon] | <ul style="list-style-type: none"> no extension yet. But a lot of pattern tools to do this | [Remove duplicated edges] | <ul style="list-style-type: none"> Purge Duplicate Path Segments Occult Plugin (Hidden / Superimposed Line Removal) | [Door panels] | |

| eCut | MightyScape equivalent | eCut | MightyScape equivalent | eCut | MightyScape equivalent |
|--------------------------------|--|--|---|----------------------------------|------------------------|
| [Draft] | <ul style="list-style-type: none"> • Native function using Live Path Effect dimensioning, or • legacy Dimensioning (Replaced by LPE) | [Slice shape] | <ul style="list-style-type: none"> • no extension yet, but similar to Split Bezier r (Subdivide Path) and Destructive Clip | [G codes] | |
| [Central line] | <ul style="list-style-type: none"> • Native Centerline Tracing with CTRL + ALT + B | [Eyelets] | <ul style="list-style-type: none"> • no extension yet | [Liquid acrylic] | |
| [Smart divide] | <ul style="list-style-type: none"> • Native function using contour breaking | [Create carrier (boundingbox)] | <ul style="list-style-type: none"> • Bounding Box | [Scripts] | |

| eCut | MightyScape equivalent | eCut | MightyScape equivalent | eCut | MightyScape equivalent |
|--|--|--|---|--|------------------------|
| [Connect opened paths] | <ul style="list-style-type: none"> • Join Paths / Create Tabs And Dimples, or • Chain Paths, or • Close Paths, or • Line Merging (Combine Paths) | [Align and Distribute] | <ul style="list-style-type: none"> • Native function | [Finger joint change size] | |

| eCut | MightyScape equivalent | eCut | MightyScape equivalent | eCut | MightyScape equivalent |
|--------------------------|--|----------------------------|--|------|------------------------|
| [Fillet] | <ul style="list-style-type: none"> • Native function, or • legacy plugin Fillet And Chamfer (Replaced by LPE), or • Rounded Corners (Replaced by LPE) | [Set size] | <ul style="list-style-type: none"> • Native function, or • legacy plugin Scale To Size (Replaced by default transform scale) | | |

| eCut | MightyScape equivalent | eCut | MightyScape equivalent | eCut | MightyScape equivalent |
|--|---|---------------------------------|--|------|------------------------|
| [Search for intersections] | <ul style="list-style-type: none"> • Contour Scanner And Trimmer • Path Intersections | [CAD functions] | <ul style="list-style-type: none"> • Most functions are native in Inkscape, • or possible with the having extensions | | |
| [Search duplicates] | <ul style="list-style-type: none"> • no extension yet, but Purge Duplicate Path Segments could be extended with this function | [DXF Export] | <ul style="list-style-type: none"> • Native function | | |