

44° ENSA



O TRABALHO

TRANSFORMA O ESPAÇO:
ARQUITETURA E URBANISMO
NAS PERIFERIAS DO MUNDO

FREECAD: COMO FUNCIONA UM PROJETO COLABORATIVO?

Yorik van Havre
Arquiteto / desenvolvedor



FREECAD

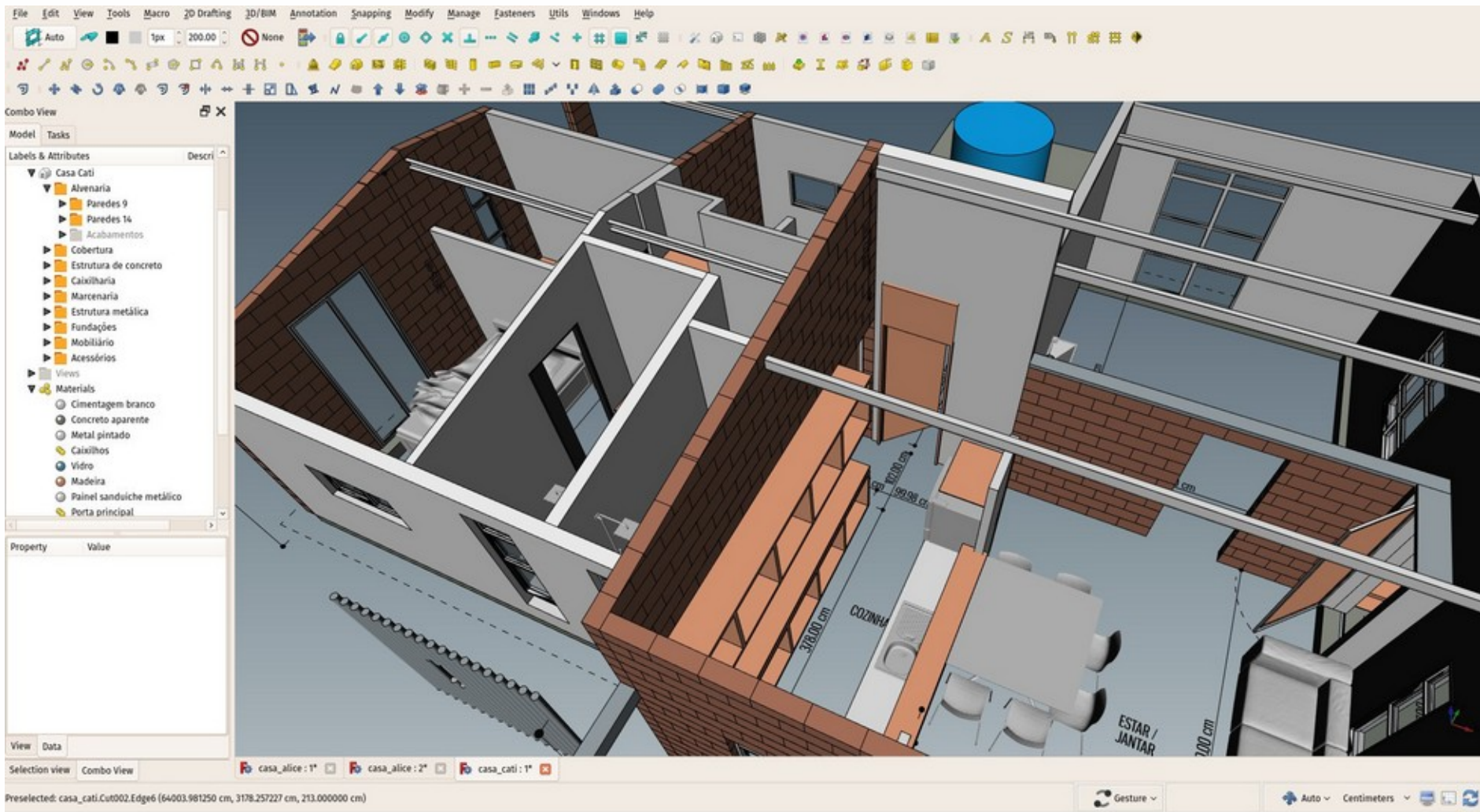


- [HTTPS://FREECADWEB.ORG](https://freecadweb.org)
- APLICATIVO DE MODELAGEM 3D PARAMÉTRICA
- SOFTWARE LIVRE, DESENVOLVIDO POR UMA COMUNIDADE
- MULTI-PLATAFORMA (WINDOWS, MACOS, LINUX)
- MULTIFUNCIONAL (CAD, BIM, CAM/CNC, FEM, ...)
- ALTAMENTE CUSTOMIZÁVEL E “HACKEÁVEL”

O PROJETO

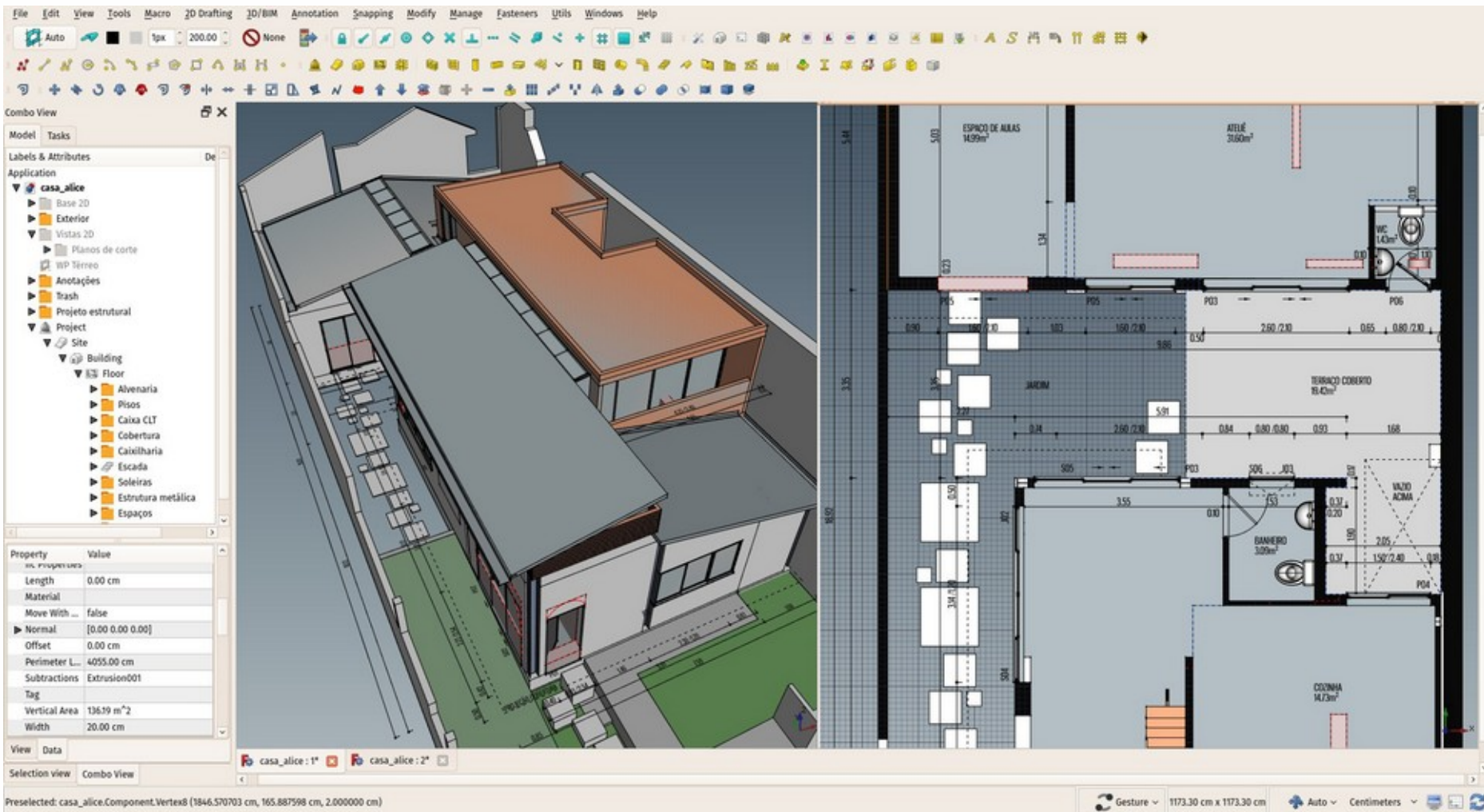
- O CÓDIGO É GERENCIADO POR SISTEMA GIT (GESTÃO DE VERSÕES)
- O CÓDIGO É ALTAMENTE MODULAR E DE FÁCIL ACESSO
- QUALQUER PESSOA PODE PARTICIPAR, DE VÁRIAS MANEIRAS
- O PROJETO NÃO TEM “DIREÇÃO” MAS TEM “CURADORES”
- DECISÕES, QUANDO NECESSÁRIAS, SÃO POR CONSENSO

O FREECAD

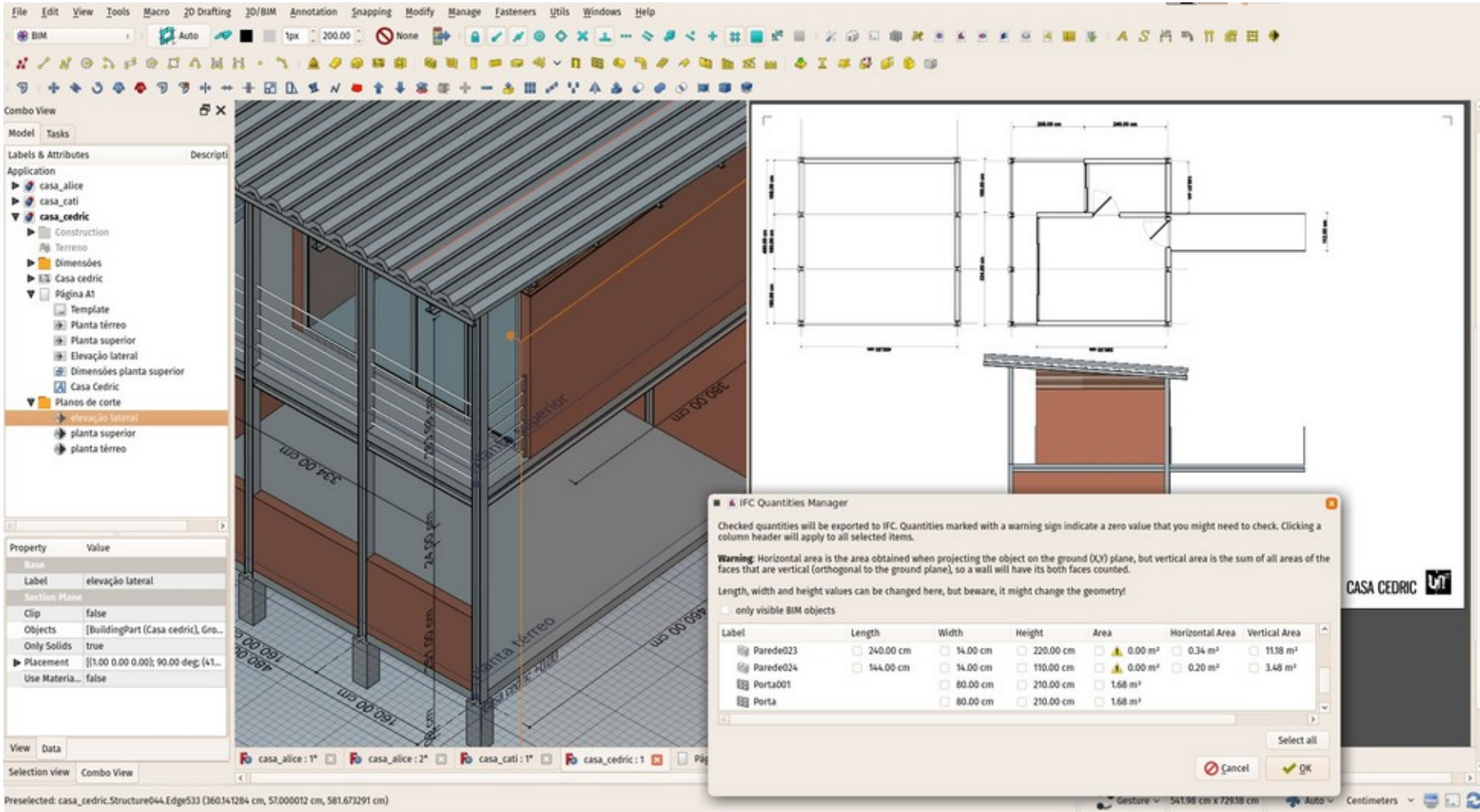


A interface do FreeCAD (usando o módulo BIM).

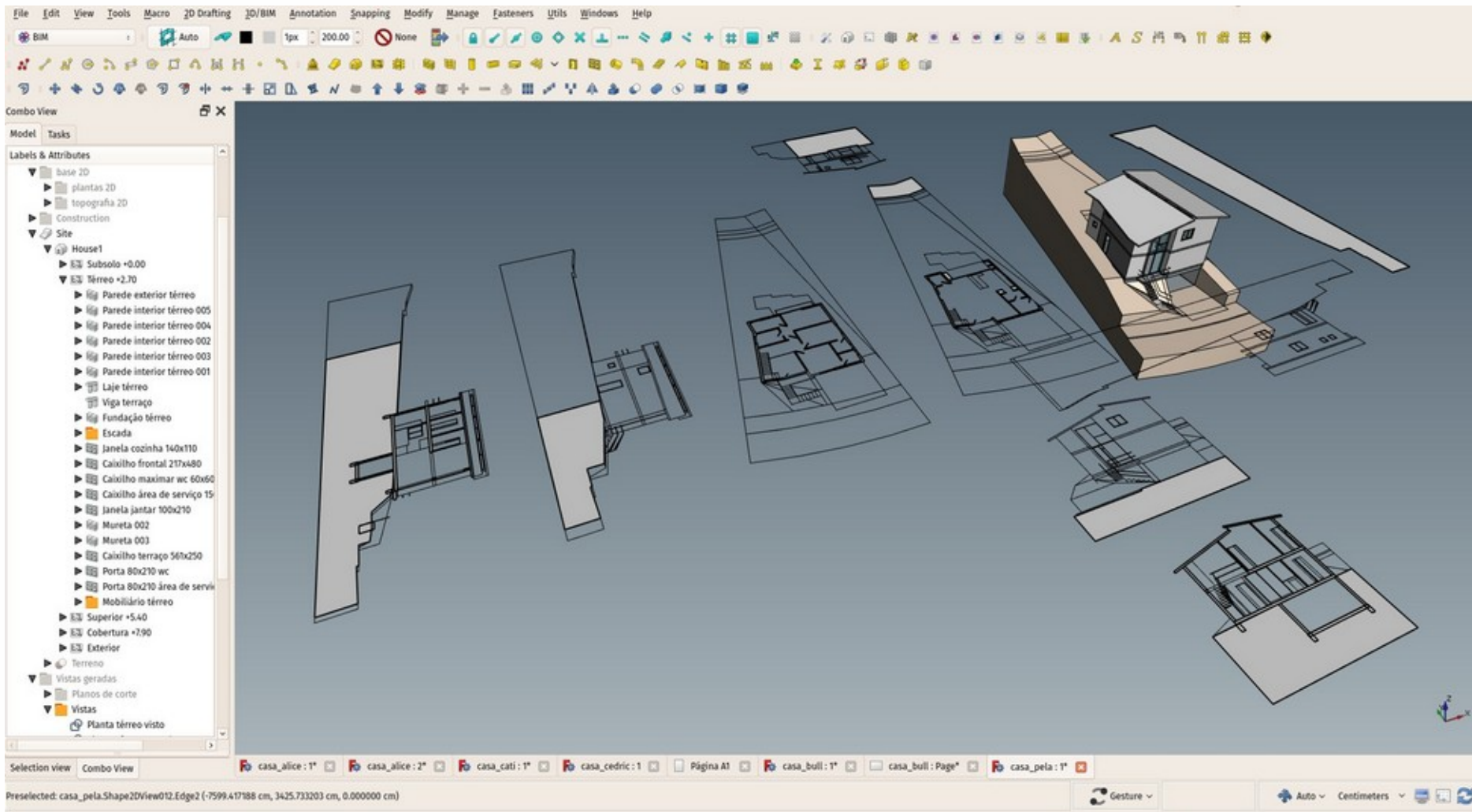
Permite modelar, desenhar, anotar, assinar materiais, importar/exportar, etc.



Tudo é paramétrico. Todos os objetos do modelo aparecem ao lado, as propriedades dos objetos são editáveis, tudo se atualiza em tempo real.



Podem ser criadas vistas 2D (plantas, cortes, etc...) anotadas, modelos podem ser exportados para muitos formatos, inclusive IFC/OpenBIM



Todos os dados do modelo são abertos e acessíveis, todos os tipos de processos de trabalho são possíveis

O PROJETO: COMO FUNCIONA













master

8 branches 12 tags

Go to file

Add file

Code

 wwmayer Gui: [skip ci] add user parameter to disable High DPI 3d6dee2 1 hour ago 🕒 23,184 commits
 .circleci update circle-ci 3 years ago
 .github Simplified github/FUNDING.yml 5 months ago
 .travis FreeCAD_trunk.sln to FreeCAD.sln 2 years ago
 cMake Import: [skip ci] add support of glTF format (requires OCCT 7... 10 days ago
 conda Fix typos in various files [skip-ci] 3 months ago
 data Data: examples FEM, delete files added by accident with co... 5 months ago
 package Fix COPR rawhide builds 4 months ago
 src Gui: [skip ci] add user parameter to disable High DPI scaling ... 1 hour ago
 subuser/freecad-dev Add subuser files for developing freecad within a Docker cont... 4 years ago
 vagrant Fix various typos [skip-ci] 2 months ago
 .arconfig add config for arcanist 5 years ago

About



This is the official source code of FreeCAD, a free and opensource multiplatform 3D parametric modeler. Issues are managed on our own bug tracker at <https://www.freecadweb.org/tracker>

www.freecadweb.org

freecad engineering
opencascade architecture cad
bim fem 3d 3d-printing
mac-osx linux coin windows

 Readme View license

Releases 12

 **FreeCAD 0.18.5** Latest
7 days ago

O código é inteiramente gerenciado online, em uma Plataforma GIT

Draft: Improve makeWires in upgrade function #4100

Edit

Open with

Open marloalexis84 wants to merge 1 commit into FreeCAD:master from marloalexis84:draft-upgrade

Conversation 0

Commits 1

Checks 0

Files changed 1

+50 -50

Changes from all commits File filter... Jump to... Settings

0 / 1 files viewed

i

Review changes

100 src/Mod/Draft/draftfunctions/upgrade.py

Viewed ...

```
@@ -333,26 +333,37 @@ def makeFaces(objectslist):
333 333     def makeWires(objectslist):
334 334         """Join edges in the given objects list into wires."""
335 335         edges = []
336 -         for o in objectslist:
337 -             for e in o.Shape.Edges:
338 -                 edges.append(e)
336 +         for object in objectslist:
337 +             for edge in object.Shape.Edges:
338 +                 edges.append(edge)
339 +
339 340         try:
340 -             nedges = Part._sortEdges(edges[:])
341 +             sorted_edges = Part.sortEdges(edges)
341 342         if _DEBUG:
```

Contribuições são submetidas a um processo de curadoria

master

Commits on Dec 2, 2020

Gul: [skip ci] add user parameter to disable High DPI scaling on Wind... ...

wwmayer committed 1 hour ago



3d6dee2

(Windows only) Improve the dpi handling with different dpi screens on... ...

apeltauer authored and wwmayer committed 1 hour ago



181914b



replace auto with type

joe-bookwood authored and wwmayer committed 2 hours ago



998e177



add missing Include

joe-bookwood authored and wwmayer committed 2 hours ago



165b0e9



Commits on Dec 1, 2020

PartDesign: [skip ci] fix -Wmissing-field-initializers

wwmayer committed 20 hours ago



7085bd7

Add core hole info for fine threads. ...

chennes committed 21 hours ago

Verified



e73d8c5

Merge pull request #4085 from sliptonc/bug/vcarve ...

sliptonc committed 22 hours ago

Verified



8b1aa63



Toda mudança é registrada, testada e pode ser revertida

✓ **Pull Request #3772** Python linting proof of concept #14706 passed

↳ Commit db2c135 [↗](#) 🕒 Ran for 1 min 40 sec

🔗 #3772: Python linting proof of concept [↗](#) 📅 4 months ago

🔗 Branch master [↗](#)

 John Yani

🔗 `</>` Python: 3.7

🔗 AMD64

📦

[Job log](#)

[View config](#)

```
Raw log
```

```
▶ 1 Worker information worker_info 0.06s
```

```
6
```

```
▶ 7 Build system information system_info 0.81s
```

```
161
```

```
162 docker_mtu 2.36s
```

```
163 $ git clone --depth=5000 https://github.com/FreeCAD/FreeCAD.git FreeCAD/FreeCAD git_checkout 40.34s
```

```
183
```

Testes automáticos são feitos a cada mudança

Search in file

- All FreeCAD object properties will be s...
- When possible, similar entities will be ...
- When possible, IFC objects that are ex...
- Some IFC types such as IfcWall or IfcB...
- If no site is found in the FreeCAD docu...
- If no building is found in the FreeCAD ...
- Add default building if one is not found...
- If no building storey is found in the Fre...
- Curved shapes that cannot be represe...
- The type of objects that you wish t...
- The units you want your IFC file to be e...
- EXPERIMENTAL The number of cores ...
- Number of cores to use (experimental)
- If this option is checked, the default 'Pr...
- Replace 'Project', 'Site', 'Building', and '...
- Distances (mm) and angles (deg) bet...
- Walls

SOURCE STRING

All FreeCAD object properties will be stored inside the exported objects, allowing to recreate a full parametric model on reimport.

CONTEXT ▾ EDIT

Gui::Dialog::DlgSettingsArch
 ../ui/preferences-ifc-export.ui:221

Enter translation here



131 · 0

SAVE

PORTUGUESE, BRAZILIAN TRANSLATIONS ▾

No translations suggested yet

TM AND MT SUGGESTIONS ▾



Se isto estiver marcado, todas as propriedades de objeto de FreeCAD serão armazenadas dentro os objetos exportados, permitindo recriar um modelo paramétrico completo na reimportação.

Allif this is checked, **all** FreeCAD object properties will be stored inside the exported objects, **allowing, allowing** to recreate a full parametric model on reimport.

FreeCAD's TM, 85% match

No comments yet

Traduções feitas inteiramente pela comunidade



Arch Module

Translate this page

Other languages: [Bahasa Indonesia](#) • [Deutsch](#) • **[English](#)** • [Türkçe](#) • [español](#) • [français](#) • [hrvatski](#) • [italiano](#) • [polski](#) • [português](#) • [português do Brasil](#) • [română](#) • [svenska](#) • [čeština](#) • [български](#) • [русский](#) • [українська](#) • [中文](#) • [中文 \(中国大陆\)](#) • [中文 \(台灣\)](#) • [中文 \(繁體\)](#) • [日本語](#) • [한국어](#)

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General usage




- User Hub
- Manual
- Tutorials
- Installing
- Getting started
- Navigation styles
- Customizing FreeCAD
- Commands list



Workbenches

- Workbenches list
- Arch
- Draft
- FEM
- Mesh
- OpenSCAD
- Part
- PartDesign
- Path
- Points
- Ravtracing

Introduction [\[edit\]](#)

The  **Arch Workbench** provides a modern [building information modelling](#) (BIM) workflow to FreeCAD, with support for features like fully parametric architectural entities such as walls, beams, roofs, windows, stairs, pipes, and furniture. It supports industry foundation classes (IFC) files, and production of 2D floor plans in combination with the  **TechDraw Workbench**.

The Arch Workbench imports all tools from the  **Draft Workbench**, as it uses its 2D objects to build 3D parametric architectural objects. Nevertheless, Arch can also use solid shapes created with other workbenches like  **Part** and  **PartDesign**.

The BIM functionality of FreeCAD is now progressively split into this Arch Workbench, which holds basic architectural tools, and the  **BIM Workbench**, which is available from the  **Addon Manager**. This BIM Workbench adds a new interface layer on top of the Arch tools, with the aim of making the BIM workflow more intuitive and user-friendly. See [FreeCAD BIM migration guide](#).

The developers of Draft, Arch, and BIM also collaborate with the greater [OSArch community](#), with the ultimate goal of improving building design by using entirely free software.



Arch workbench icon

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A documentação é também escrita e traduzida pela comunidade



Board index

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	Help on using FreeCAD Post here for help on using FreeCAD's graphical user interface (GUI).	16968	135004	Re: Text String Q? by Willem → 02 Dec 2020, 10:30
	Python scripting and macros Need help, or want to share a macro? Post here!	3210	22249	Re: How to judge the type of ... by freecadlzh → 02 Dec 2020, 10:06
	Install / Compile Having trouble installing or compiling FreeCAD? Get help here. Subforum: Packaging	2378	22311	Re: Freecad 0.19 compile prob... by wmayer → 02 Dec 2020, 08:22
	Open discussion	4148	45592	Re: unable to get Mesh to rec... by Kunda1 → 02 Dec 2020, 10:33
	Announcements & Features Info about new community or project announcements, implemented features, classes, modules or APIs. Might get technical! PLEASE DO NOT POST HELP REQUESTS OR OTHER DISCUSSIONS HERE!	282	4242	Re: New Raytracing Workbench ... by The_Raytracers → 30 Nov 2020, 18:32
	Users Showcase Show off your FreeCAD projects here!	750	6827	Re: Hollow-body electric guit... by blaked → 02 Dec 2020, 10:00
	Job offers Post here if you have a FreeCAD-related job to offer to the FreeCAD community. This can include programming or modeling.	122	634	Re: Please help me fix errors... by M4x → 14 Nov 2020, 06:57
	Tutorials and videos A place to share learning material, written tutorials, videos, etc.	151	1439	Re: Test tutorial for Assembl... by jpg87 →

A comunidade gira em torno do forum



Suraj Dadral

Posts: 298
Joined: 07 Sep 2018,
14:32
Contact: ...

Re: GSoC Proposal: Extended functionality of Rebar Addon

by Suraj Dadral » 22 Aug 2020, 16:52



“ balrobs wrote: ↑
21 Aug 2020, 05:54
Another suggestion @Suraj ... at this point we could start creating the new needed toolbar icons.

Hi @balrobs

Thanks for early reminder. 😊

For now, as my next task is to create Gui for RebarShapeCutList and BarBendingSchedule, so we surely need icons for that.

Thanks,

--
Suraj
<https://github.com/SurajDadral>



balrobs

Posts: 128
Joined: 24 Apr 2020,
17:58
Contact: ...

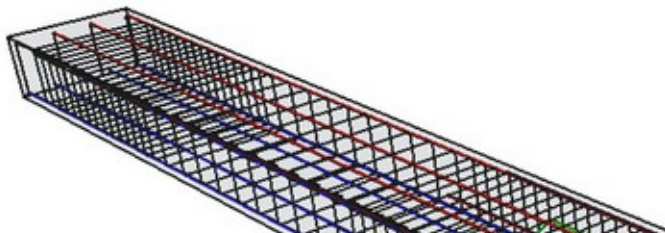
Re: GSoC Proposal: Extended functionality of Rebar Addon

by balrobs » 23 Aug 2020, 08:09



Hi @Suraj,

i tested your latest code with following beam model and got some messed up output for the BOM and for the BarBendingSchedule.



Opções são discutidas aqui, e decisões tomadas por consenso



MY VIEW



VIEW ISSUES



READ THIS BEFORE REPORTING



REPORT ISSUE



CHANGE LOG



ROADMAP



SUMMARY



MANAGE



REPOSITORIES



SEARCH



Viewing Issues 1 - 23 / 23

Print Reports

CSV Export

Excel Export

Summary

XML Export

Issue Trends

	P	Category	ID	Reporter	Summary			Severity	Status	Updated
<input type="checkbox"/>		Bug	0004490	Kunda1	Arch Fence broken due to Draft WB refactoring	1		major	assigned (yorik)	2020-11-18
<input type="checkbox"/>		Bug	0004210	Michaelberg	Impossible to export a PartDesign Body	2	2	minor	confirmed (yorik)	2020-10-22
<input type="checkbox"/>		Bug	0001823	lanciaux	Working plane not reset under Arch when making new project	5		minor	assigned (yorik)	2020-07-05
<input type="checkbox"/>		Bug	0003246	Kunda1	Fix IV mode in Sketchfab exporter			minor	assigned (yorik)	2020-01-07
<input type="checkbox"/>		Bug	0003664	djmccorrie	Visibility not preserved after making edits in building tree	4	1	major	assigned (yorik)	2019-09-13
<input type="checkbox"/>		Bug	0003951	Geoplace	Floor/Building container don't keep objects hidden	3	1	major	assigned (yorik)	2019-09-13
<input type="checkbox"/>		Feature	0002543	yorik	Implement GBXML export	2		minor	assigned (yorik)	2019-04-29
<input type="checkbox"/>		Feature	0002356	yorik	Add a set of structural nodes tools	3		minor	assigned (yorik)	2019-02-14
<input type="checkbox"/>		Feature	0003243	yorik	Allow to auto make a Window from solids (auto recreate base wires and extrusions)			minor	assigned (yorik)	2019-02-14
<input type="checkbox"/>		Feature	0003241	yorik	Level marks			minor	assigned (yorik)	2019-02-14
<input type="checkbox"/>		Feature	0003240	yorik	Door/Window marks			minor	assigned (yorik)	2019-02-14

Bugs e propostas podem ser submetidos e acompanhados por todos

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5th December 20:00 UTC Monthly Meetup!
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Express language
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IfcBuildingElement class attributes
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IfcOpenShell access IFC-SPF header data
 63 views 7 comments [Get news](#) Most recent by Mault General

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ifcOpenShell and open source authoring ...
 technical.buildingmart.org

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Yorik van Havre ...
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FreeCAD
 for architectural drawing

OpenCAX

The place for collaboration in Open Source CAD/CAE/CAM/...

View On GitHub

Google Summer of Code
 The process
 The project ideas

Google Summer of Code

Lead by the BRL-CAD project the following open source projects are applying to the GSoC 2019.

BRL-CAD	FreeCAD	LibreCAD	OpenSCAD	Slic3r
Homepage	Homepage	Homepage	Homepage	Homepage
IRC	IRC	IRC	IRC	IRC

The process

- Checklist
- Guidelines
- Acceptance Requirements
- Participation Expectations

The project ideas

All project ideas are listed in the issue tracker of the OpenCAX - GSoC Repository.

Projects by organization: BRL-CAD / FreeCAD / LibreCAD / OpenSCAD / Slic3r

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O universo BIM open-source é um grande ecossistema

LINKS ÚTEIS

- FreeCAD: <https://freecadweb.org>
- Comunidade OSArch: <https://osarch.org>
- BlenderBIM: <https://blenderbim.org>
- Yorik van Havre: <https://yorik.uncreated.net> , [@yorikvanhavre](#)