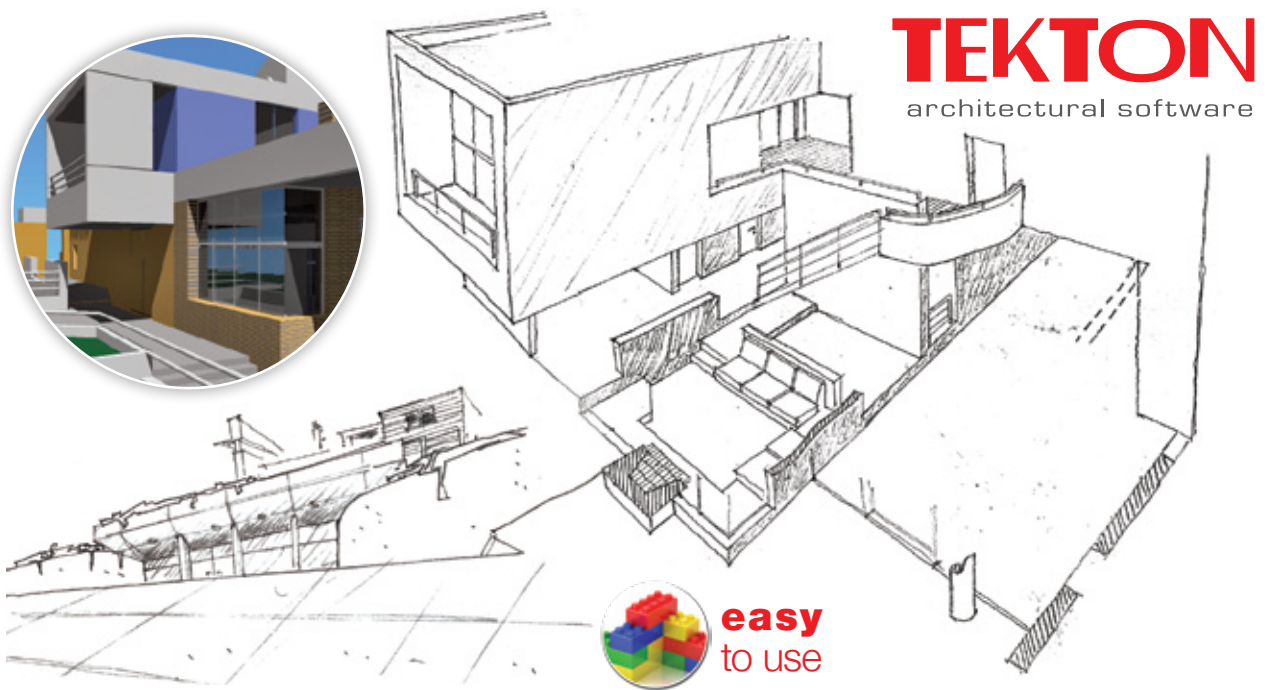


# TEKTON

architectural software

THE **COST-EFFECTIVE** AND **EASY TO USE**  
**MODELING AND RENDERING SUITE**  
THAT **MEETS YOUR NEEDS**





## 1. About us

“Tekton is a powerful and sophisticated tool addressed to architects and designers. It is the program that highlights your work from the initial phase of conceptualizing to the last construction detail.”



### The company

LH Logismiki is a high performance software company that produces software suites for civil engineers and architects. LH Logismiki's main products are Fespa: a 3d software for the analysis and design of earthquake resistant structures and Tekton: a 3d architectural package

### The product

Tekton is an architectural 3d modeling and rendering software that meets the requirements of the contemporary architect.

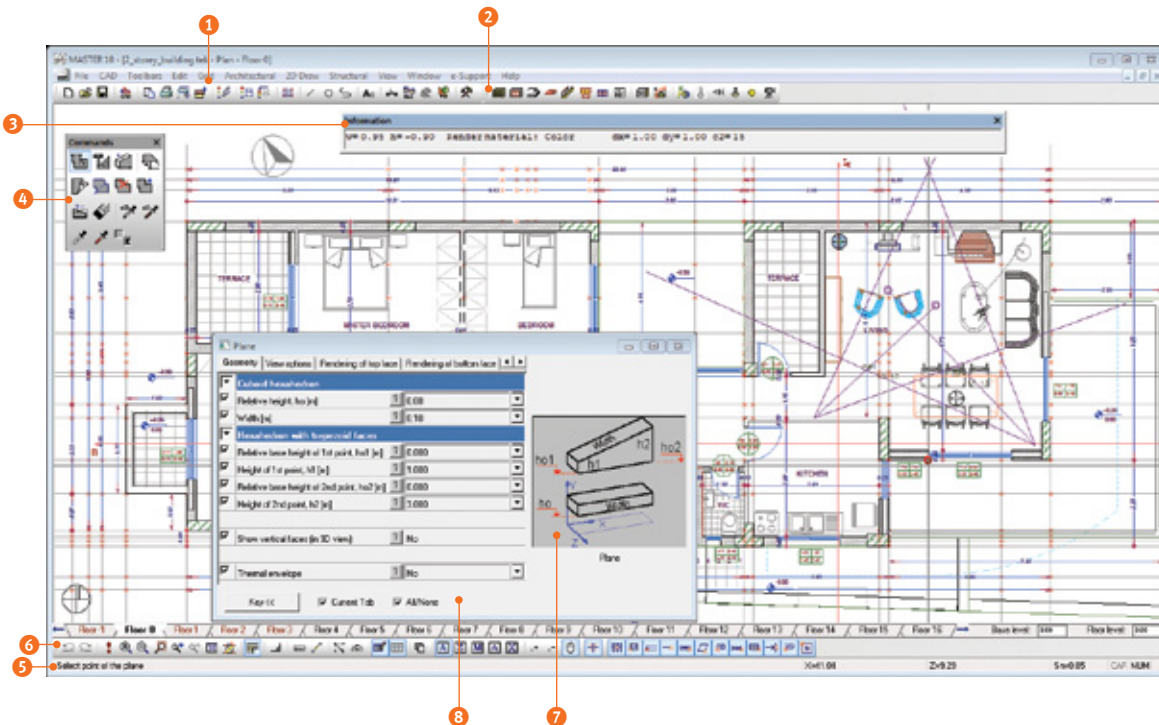
Its user-friendly interface allows for all projects to be approached in a flexible and simple way regardless of their complexity.

Bim based workflow: Two-dimensional and three-dimensional design topographical survey drawings, parametric libraries, quick 3d navigation, real-time OpenGL, ray trace rendering, Avi movies, material take - off all the above are offered by Tekton design package.

### The support

Customer service is a key part of the LH Logismiki company philosophy. Its expert human resources are constantly occupied by customers' needs, queries and difficulties. The e-Support tool of Tekton facilitates the procedure of submitting a query as the current user's file is automatically sent to the support department of LH Logismiki. Thereafter a qualified team provides comprehensive and accurate solutions the soonest possible.

## 2. Data input



- 1 The basic toolbar contains useful tools for file management, printing / plotting and insertion of linear 2d entities.
- 2 The architectural toolbar contains all the 3-dimensional architectural entities (wall, opening, plane, etc), the tools for creating the views of the 3d model (3d solid view, section etc) and the rendering entities (observer, lights, sun etc).
- 3 The information bar helps the designer check the model geometry and information at a glance.
- 4 The commands bar of the selected entity, contains all the commands relevant to the selected entity.
- 5 In the prompt bar constant help guides the designer through the commands of Tekton.
- 6 The toolbar of auxiliary tools contains useful drafting tools (zooms, layer sets, snap-points, measuring tools etc).
- 7 Explanatory images (Keys) give the necessary

information (shape, dimensions, symbols) for the description of the architectural entity in use.

- 8 The properties window, of the selected entity consists of several tabs which contain relevant properties. For example in the «Rendering of top face» tab of the «Plane» entity, the rendering properties of the relevant surface may be defined.

The main screen of Tekton, with a typical properties window and commands bar activated.

### The user interface: Design with the 3d intelligent model

Each Tekton model is composed of various entities such as walls, planes, roofs, openings, etc.

Each entity has its own group of «Properties», which are categorized in appropriate tabs according to their use. For example there are properties:

- for geometrical representation in 3d
- for adding info in the 2d drawings
- for adding colours and textures etc

All these properties can be interchanged between the elements of the same entity, thus facilitating the modification procedure.

Each entity has its own group of «Commands». They are used for inserting and editing entities.

In the prompt bar, step by step messages guide you through the commands of Tekton.

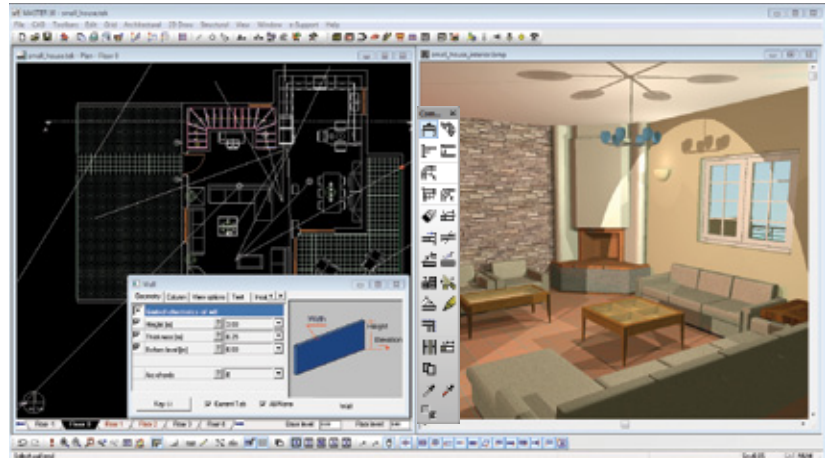
Thus, Tekton offers the possibility for simultaneous processing both in 2d and 3d without compromising on documentation, precision and quality. You may freely shape your model using parametric architectural entities (walls, openings, planes, staircases) keeping in mind that the 3d model is always active for further development.



# 3. Documentation

Working with a Tekton 3d model guarantees that all the necessary documentation and images are created automatically with speed, accuracy, detail and personality. Apart from floor plans, all elevations, sections, and perspective views are comfortably derived from the same model with just a click and updated every time the model is modified.

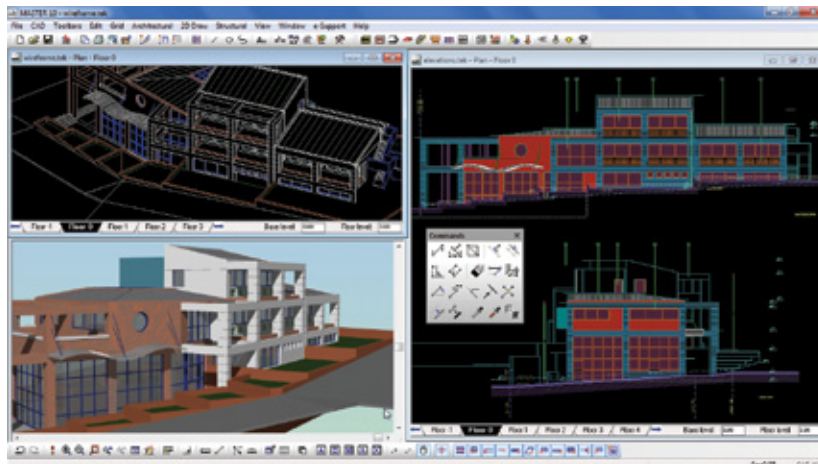
This model-based workflow allows for the easy export all the information required for the full documentation of the architectural design every



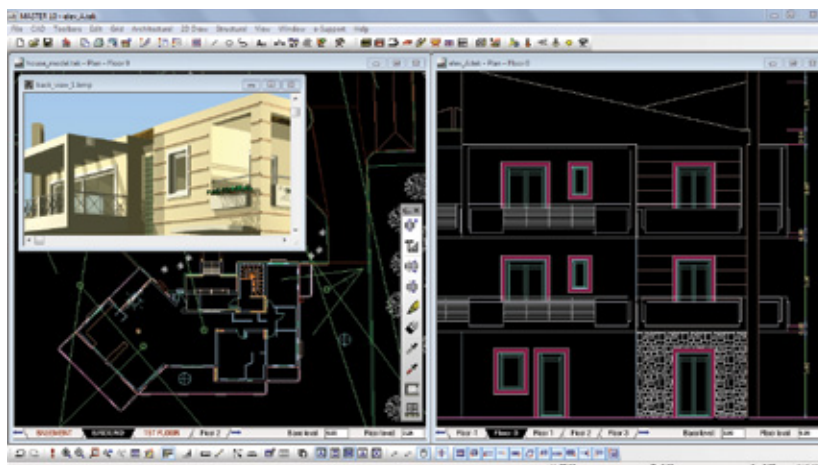
2d plan drawing and rendering at the same time during every project phase.

time that is needed. Changes to the

building model are automatically tracked and managed throughout all the project drawings just by updating the desired view. In that way, all project documents remain synchronized.



Simultaneous processing 2D and 3D.

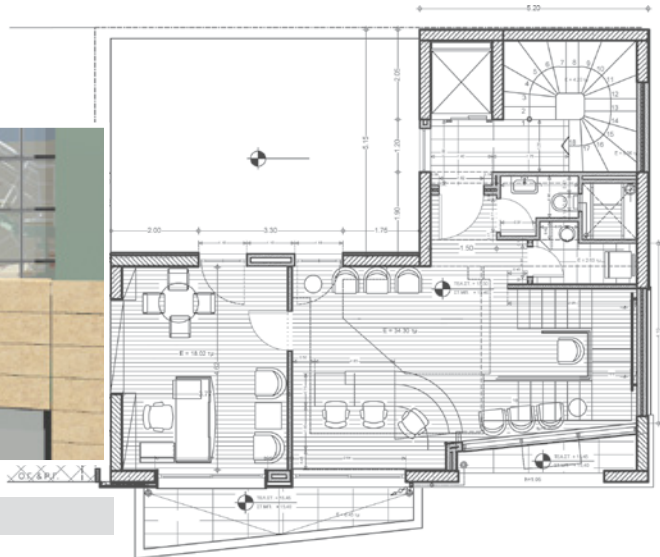


Instant synchronization between different model views.

Finally, enhance the appearance of your 2d drawings using the powerful toolbar of linear tools, to add more information to your drawings, such as hatches, dimensions, gridlines, texts etc.

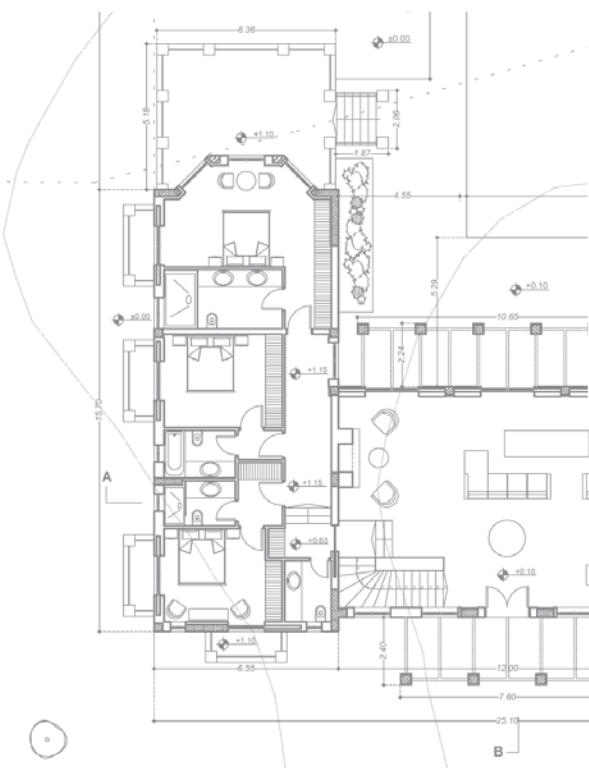
“Tekton is a unique user friendly tool producing advanced architectural design and simple BIM solutions.”

**Links** Video - 3d modeling of single storey house with mezzanine - 2nd part: Drawings: <http://youtu.be/C6Ze1jOAxHo>



Office building in Athens, (architects: I. Sakellaris, O. Douni)

“With Tekton all floor plans, elevations, sections, and perspective views are comfortably derived from the same model with just a click and updated every time the model is modified.”



Private residence in Corfu, architect: (A. Mantzourani)



Rendered view, façade details of a historical building in Athens, (architect: T.Pappas)





# 4. Tekton Libraries

The basic Tekton version comes with embedded extended libraries of:

- opening types (windows and doors)
- objects of various trends and styles, including a wide range of innovative furniture design
- architectural symbols
- bmp texture images

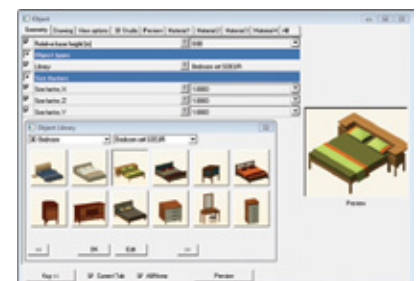
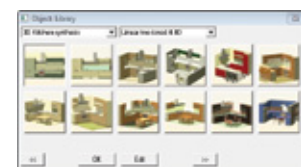
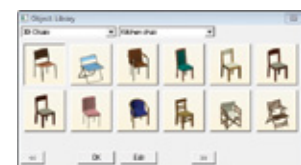
These libraries can be customized according to the needs of the designer with additional tailor made user's objects or \*.3ds files which can be inserted and edited into any Tekton file.

Both opening types and objects are parametric architectural elements and can be altered so as to have various material combinations.



Rendered image with Tekton and \*.3ds objects

“The user may not only modify the embedded objects but also to create new custom ones.”



The famous Barcelona stool and human figure \*.3ds models processed by Tekton's rendering engine



Timber frame casement window with French style shutters/ From the 3D Timber frame windows library

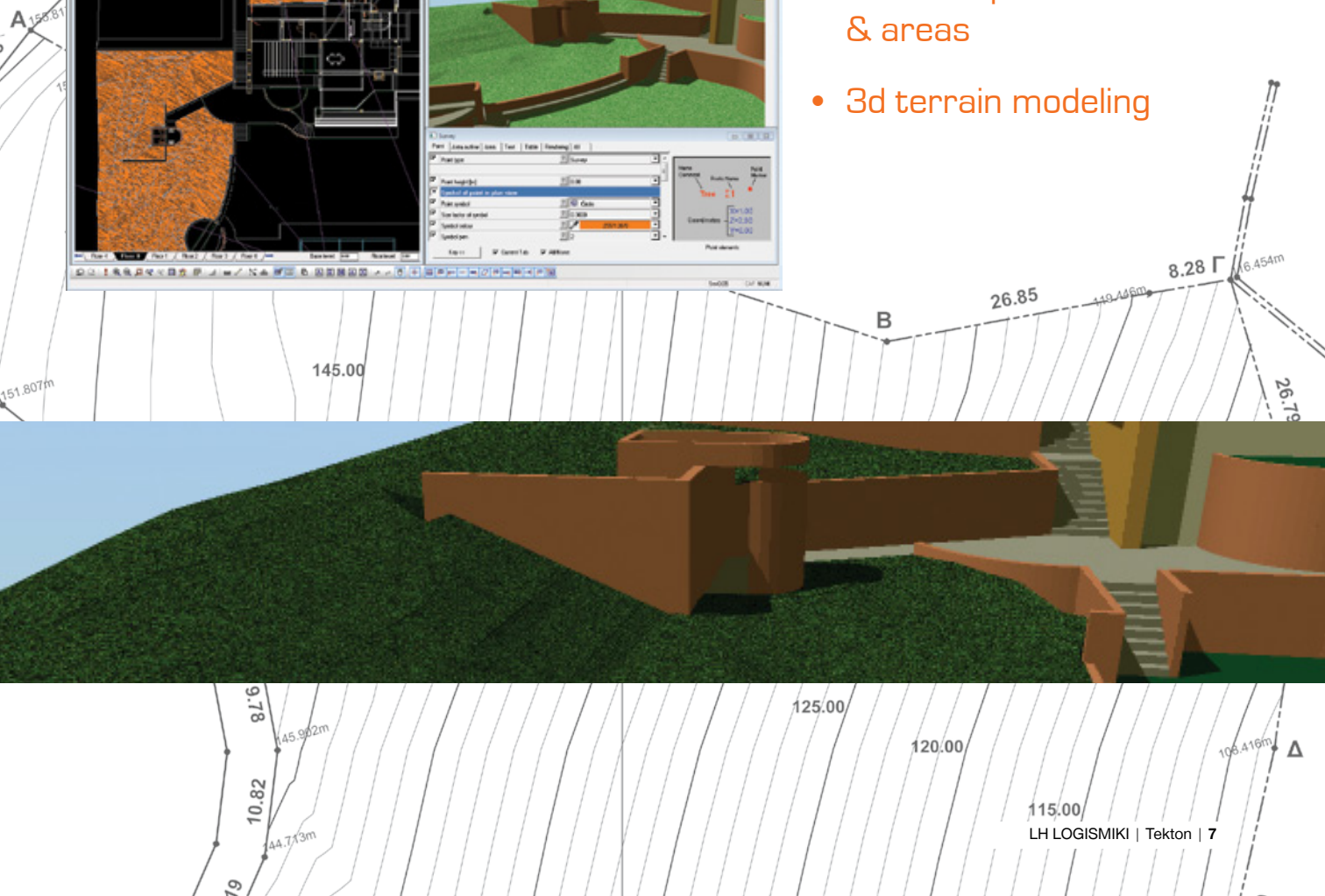
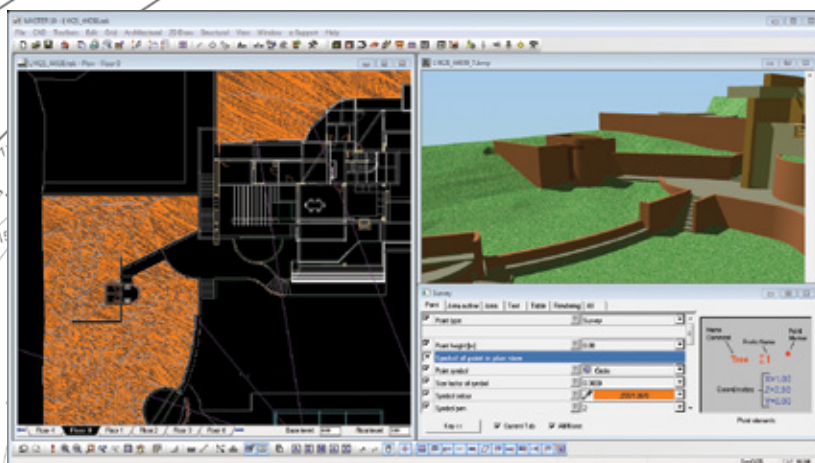
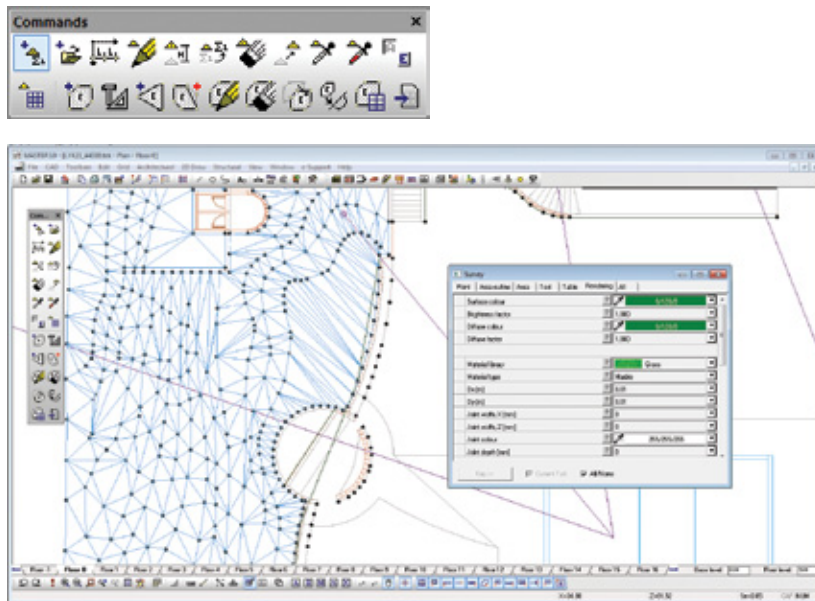


Leather couch ONDA (Zanotta) from the Designers furniture library



Thonet Vinnese rocking chair from the Designers furniture library

## 5. A few highlights



## Site plans and terrain modeling with Tekton

Describe with full detail the geometry of your project site using the “Survey” entity. With the entity «Survey» the site plan is dependent to a triangle datum or to relative coordinates system. The relevant tables of total and partial values of areas are automatically generated. Moreover a three-dimensional model of the plot is generated (3d mesh) from which you can extract useful ground sections.

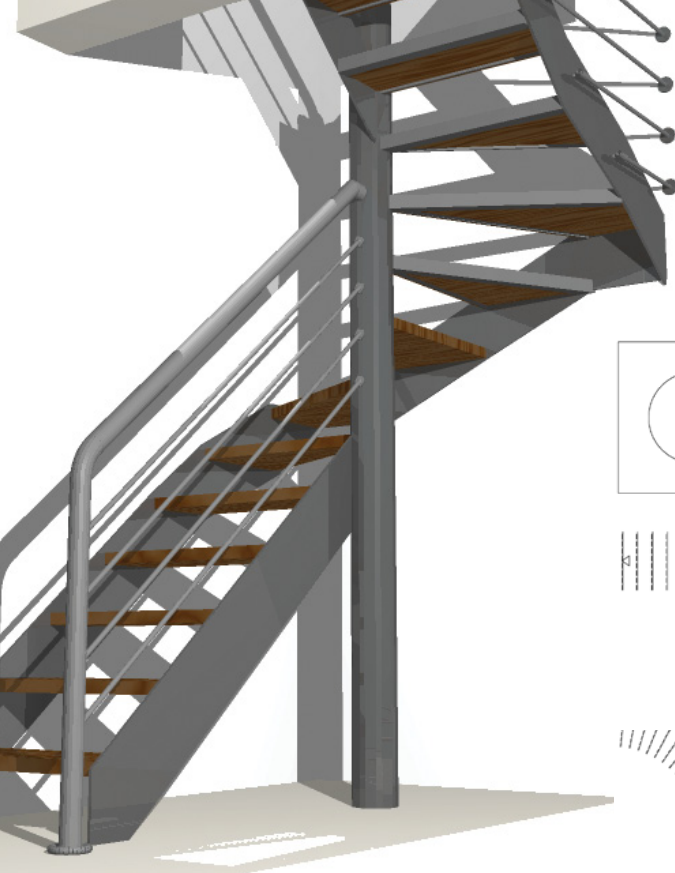
- Interoperability with geospatial software and automatic insertion of points
- Tables of points & areas
- 3d terrain modeling

Σημείο	-X5	-Z5
X7	2.81	-9.50
X8	-0.50	-14.21
X4	8.13	-12.51
X5	14.94	-9.75
X6	13.13	-7.35
X7	8.19	5.50
X8	5.44	7.50
X9	1.13	8.50
X10	-3.40	10.90
X11	-1.89	12.51
X12	-1.89	12.51
X13	-0.54	11.78
X14	1.69	10.50
X15	4.74	9.20
X16	7.97	8.00
X17	9.60	6.01
X18	12.59	1.68
X19	14.47	-2.95
X20	17.57	-13.91
X21	11.50	0.75
X22	-6.63	2.00
X23	-0.26	3.75
X24	-5.25	-1.25
X25	0.69	1.00
X26	-1.44	-8.84
X27	-1.00	-9.75
X28	4.17	-7.75
X29	0.98	-10.50
X30	16.24	-14.21
X31	-6.51	12.31
X32	-6.87	11.31
X33	-0.63	10.00
X34	-2.19	8.50
X35	-5.88	6.00
X36	-8.25	1.00
X37	-11.43	-0.40
X38	-10.30	-1.25
X39	-4.95	-1.62

Περιφέρεια	Εμβαλ.
Σ36Σ12...Σ39Σ10	341
Σύνολο	341





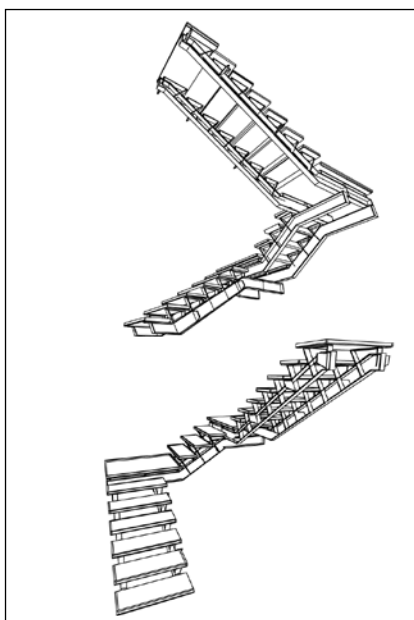
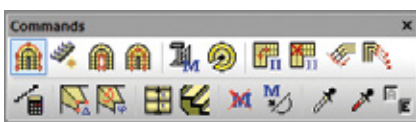
## Flexible staircase modeling

With Tekton's powerful "Staircase" entity create easily and rapidly the 3d model of any type of staircase. In addition reassure its correct 2d representation setting the desired appearance properties in the relevant tab.

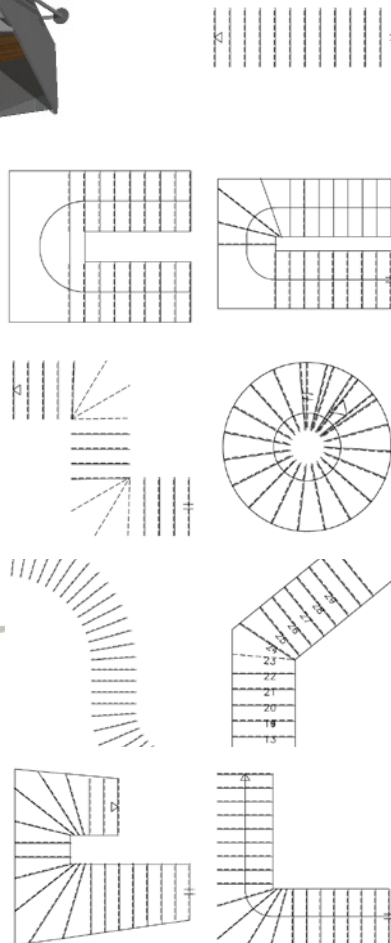
By using the "Smart staircase" command the staircase is created just with two clicks, by indicating the left stringer and its width. The model is calculated keeping a constant value of either the tread  $b$  or the riser  $h$ .

Spiral and circle staircases are automatically added by defining only the number of rounds with regard to the height of the building.

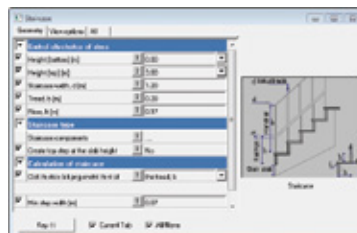
A random shaped staircase with variable width is created by full description of the left /right stringer and the walking line.



3d wireframe view of staircase model, (architects: I.Sakellaris, O. Douni)



Staircase components									
GP Tread	h	0.26	d	0.00	h	0.26	202/212/176	1	→
GP Floor	h	0.19	d	0.02	h	0.19	202/212/176	1	→
GP Stringer	h	0.16	d	0.02	h	0.16	202/212/176	1	→
GP Left railing	h	0.27	h	0.27	d	0.02	202/212/176	1	→
GP Right railing	h	0.27	h	0.27	d	0.02	202/212/176	1	→
GP Left handrail	h	0.27	h	0.27	d	0.02	202/212/176	1	→
GP Right handrail	h	0.27	h	0.27	d	0.02	202/212/176	1	→
GP Left balustrade	h	0.02	d	0.02	h	0.02	202/212/176	1	→
GP Right balustrade	h	0.02	d	0.02	h	0.02	202/212/176	1	→

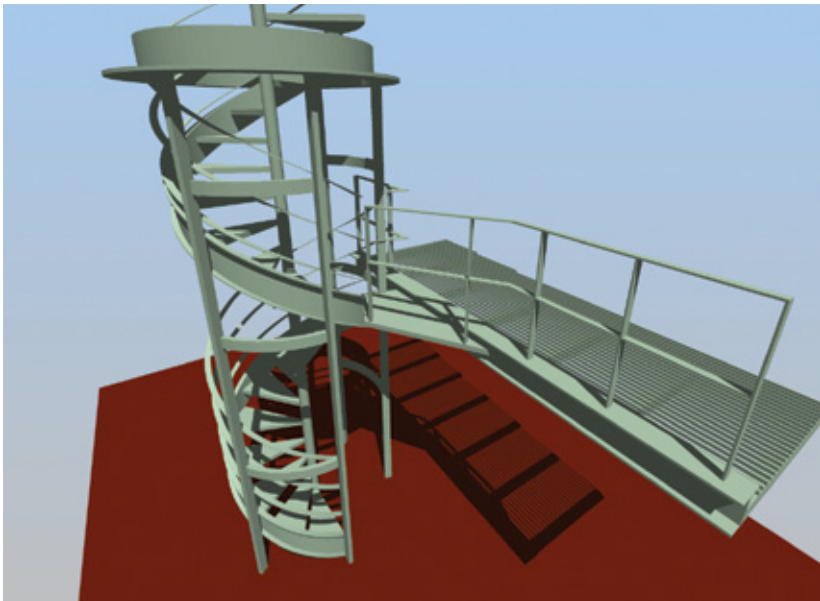


"Powerful built-in staircase generator for stairs of complex geometry in 2d and 3d including handrails and balustrades."

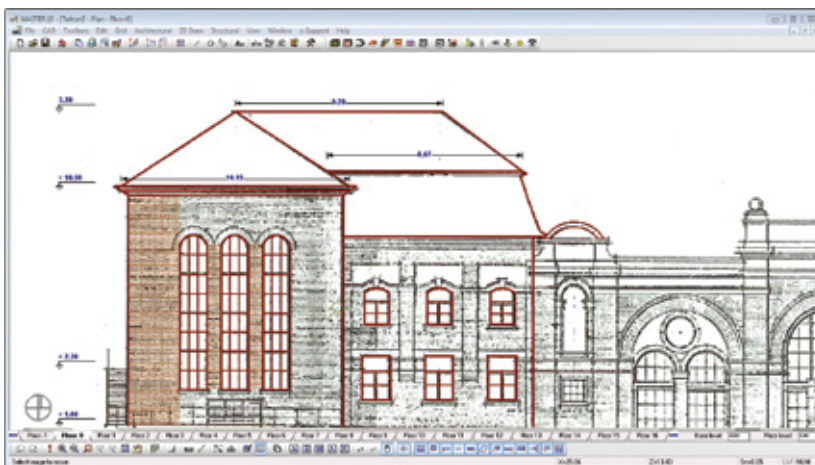


Rendered 3d view of staircase model, (architects: P. Mouzaki/ R. Christodoulitou)





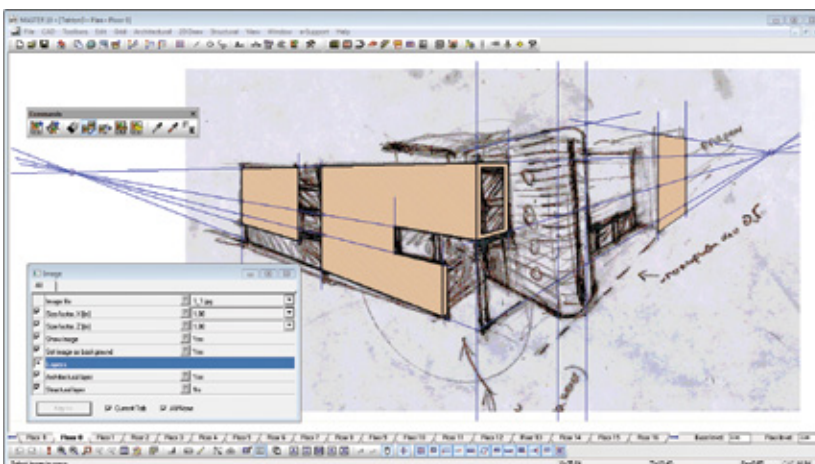
Rendered 3d views of staircase model, (architect: I.Sakellaris)



Elevation survey drawing from scanned image

## Importing and editing image files in the Tekton environment.

With the “Image” entity integration and further processing of image files (\*.bmp, \*.jpg) in Tekton environment is achieved. Reproduce old digitized drawings, integrate photos into your 2d drawings and use images to enrich your renderings.



Digitizing a free hand sketch

- Import of aerial views into the model or paper space
- Import of scanned old project for further editing
- Insertion of posters, signs and materials on faces of the 3d model

## 6. Tekton Rendering

High-end photo-rendering capabilities with just one click.

Use the “Observer” entity to simulate the eye of the architect and to create accurately the “frame” of your rendering scenes.

Rendering with Tekton provides the user with the ability to «visualize» his project while experimenting with various special effects in order to add expressivity to it, such as lighting, fog, aperture or material texture.

The internal rendering engine of Tekton «Skies» ensures the perfect representation of the applied materials with two illustration methods, fractal imaging and surface mapping.



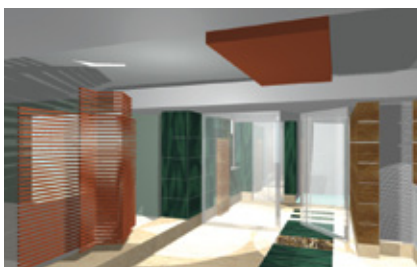
Rendered 3d view / Matching to a background photo's context. Residence in Hydra, (architect: A. Mantzourani)

### Tekton cinema - virtual reality animations.



“Create expressive animated walk-throughs and flyovers that promote your design ideas”

Use the entity “Shot” to generate an \*.avi file which consists of sequential rendering images creating a virtual reality animation. Simultaneous motion of the observer and target, as well as change of zoom and background is possible, resulting in a variety of impressive scenes.



Various rendered interior views, Office building in Athens, (architects: I. Sakellaris, O. Douni)

#### Links

Video - 3d modeling of single storey house with mezzanine - 3rd part: Rendering: <http://youtu.be/xMISUUIhqUQ>



“One - button “Raytrace rendering” option and extensive surface material textures make the rendering workflow a smooth, uninterrupted and easy process.”



Residential complex building in Athens, (architects: A& L Mantzourani)



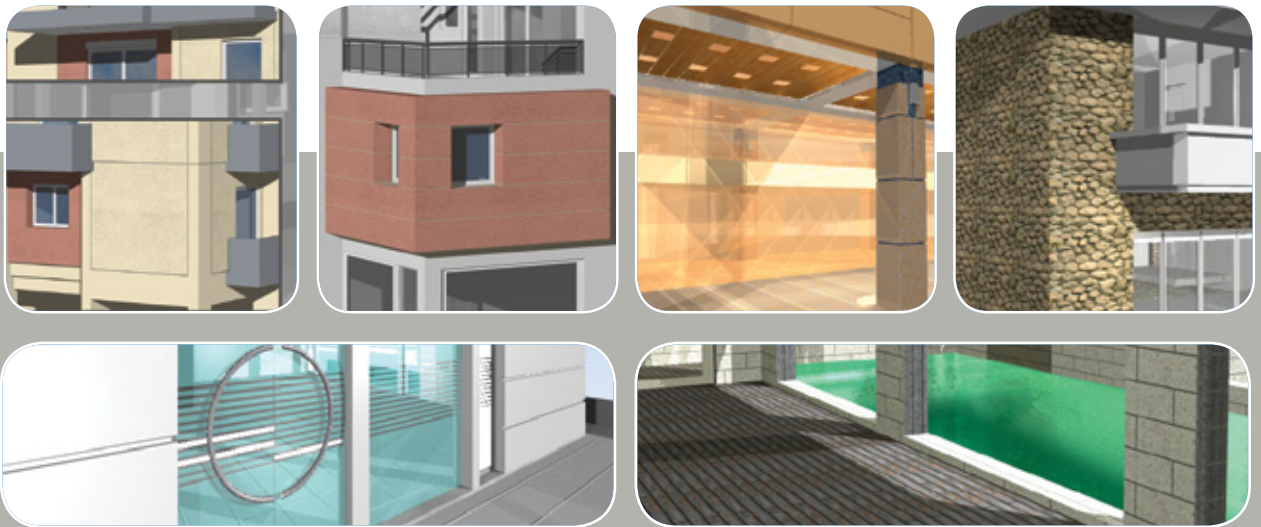
Single house in Pendeli, (architect: F. Kontalonis)

## 7. Materials and Textures

With the completion of the modeling procedure the materiality of the project is already defined as the selected materials have already been assigned to the model's surfaces through the relative rendering properties tabs.

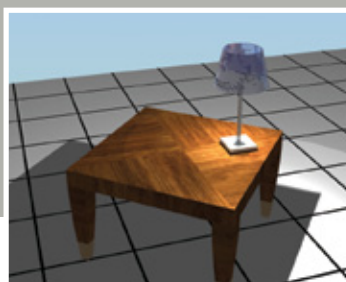
The three-dimensional geometry of each surface (tile, brick, wood, tile, etc.) is applied via fractal imaging. Moreover, with the surface mapping method textures (material bmp images) may be imposed into selected surfaces.

For more realistic representation of the material texture experiment with the parameters reflection, mirroring, refraction, transparency and glossiness, or select one of the software's preset properties set.

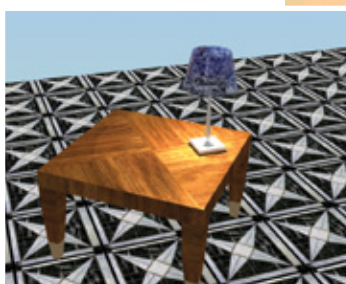


**Renders: details of various materials (glass, wood, water, concrete tiles, stone cladding, textured plaster)**

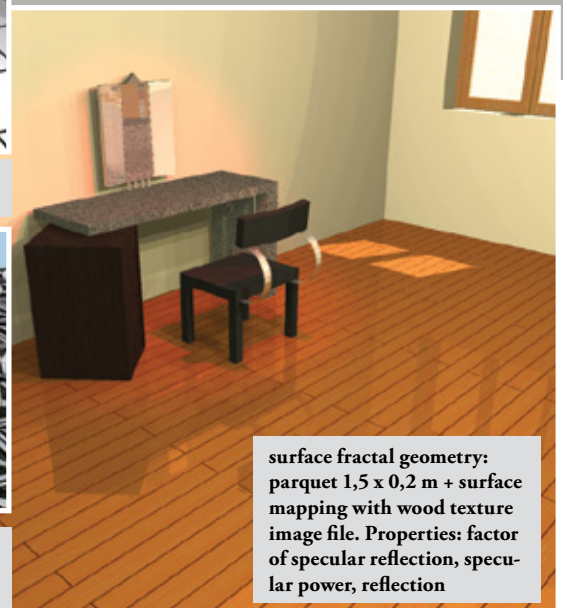
“Tekton rendering provides perfect representation of the applied materials with two illustration methods, fractal imaging and surface mapping.”



**Surface fractal geometry:**  
0,45 x 0,45 m. tiles



**Overlapping surface mapping with bmp texture image file on fractal geometry**



**surface fractal geometry:**  
parquet 1,5 x 0,2 m + surface mapping with wood texture image file. Properties: factor of specular reflection, specular power, reflection

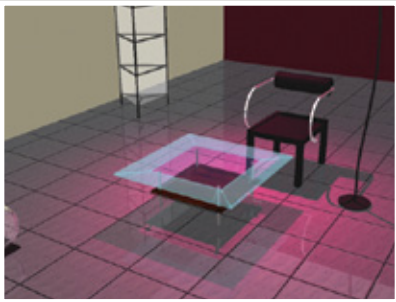
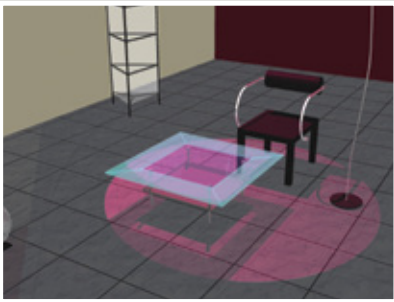
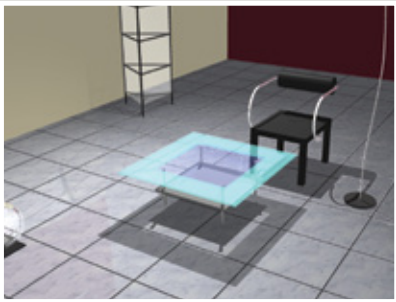


# Sun lighting and lighting sources

With Tekton you can parameterize both the characteristics of solar and artificial light. The “Light” entity offers a wide range of embedded lighting types (point, spot, surface lighting source etc) whereas through the “Sun” properties you can adjust the ambient lighting conditions in real time.



Rendered interior views, different materials and lighting conditions/ living room, private house in Dionissos, (architects: M. Filippa, R. Christodoulitou)

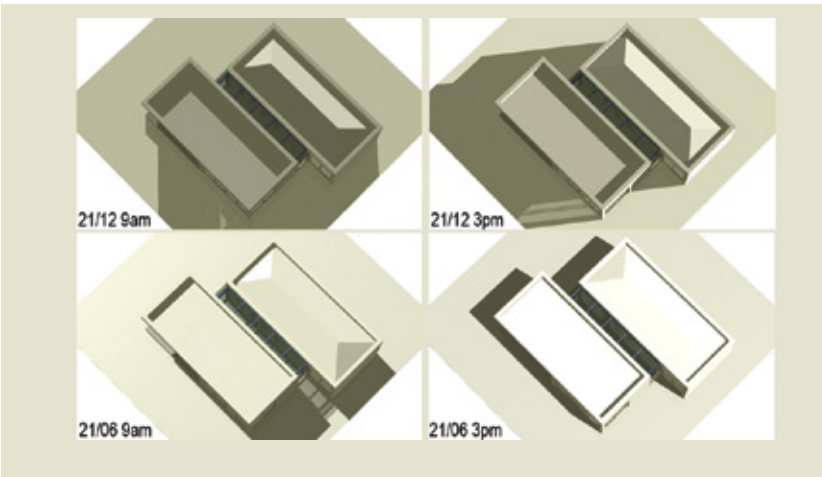


Interior scene with spotlight: modifying the parameters (inner-outer light beam angles, attenuation factor) provides different lighting conditions

“Study the real lighting conditions of your project and perform shadow analysis for any specific time and geographical location, easily and accurately.”



Rendered perspective elevations: night and day, private house in Dionissos, architects: M.Fillippa, R. Christodoulitou

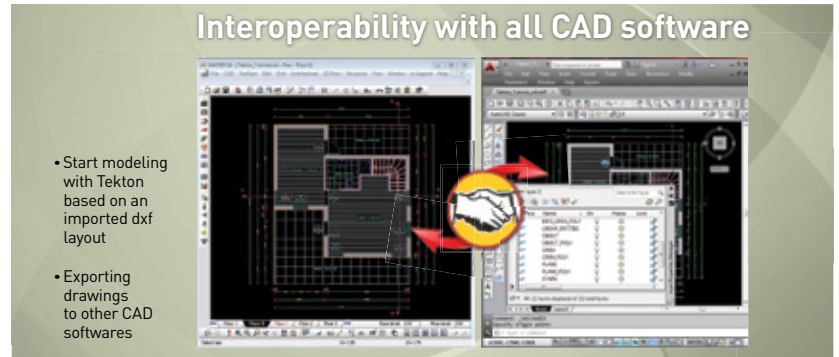


Put together real time shadow studies for your project.

## 8. Interoperability with all CAD Software

CAD Organizer offers interoperability with all CAD software. Interdisciplinary collaboration is achieved with smart, model-based workflows between the various specialists, and therefore coordination errors can be reduced practically to a minimum during the succession of phases.

CAD Organizer reassures the well organized and structured transfer of entities (e.g. columns, reinforcements, etc). The exported entities are categorized in relevant layers so as to be easily recognized and edited in programs which use CAD platforms. The entities which are

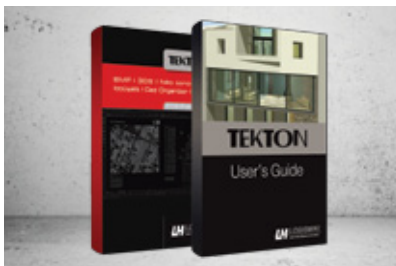


common in both environments (dimensions, lines, arcs, texts etc) are transferred from one environment preserving their original properties. Tekton can also export the model information in IFC format used

by the BIM industry. Geometry of all the architectural parametrical entities (walls, planes, etc) can be exported in the appropriate format for further editing.

## 9. Support

“benefit the most from our integrated knowledge base!”



Customer service is the cornerstone of the LH Logismiki company philosophy.

We provide telephone, fax and e-mail support for all our customers. If you purchased your software through our international dealers, please contact them with your technical

questions. We also provide free support through our support centre, available on the internet in an easy-to-search website.

- Learn from Tekton books, user's guides and examples.
- Watch video tutorials
- Search the tutorials to find useful tips and answers to common questions.



### Links

Video - Interoperability with all CAD software: [http://youtu.be/h4rfH4Yi6ZQ?list=PLQydMcw\\_bj7Fm09-GfBEV94C3FqzCv74v](http://youtu.be/h4rfH4Yi6ZQ?list=PLQydMcw_bj7Fm09-GfBEV94C3FqzCv74v)

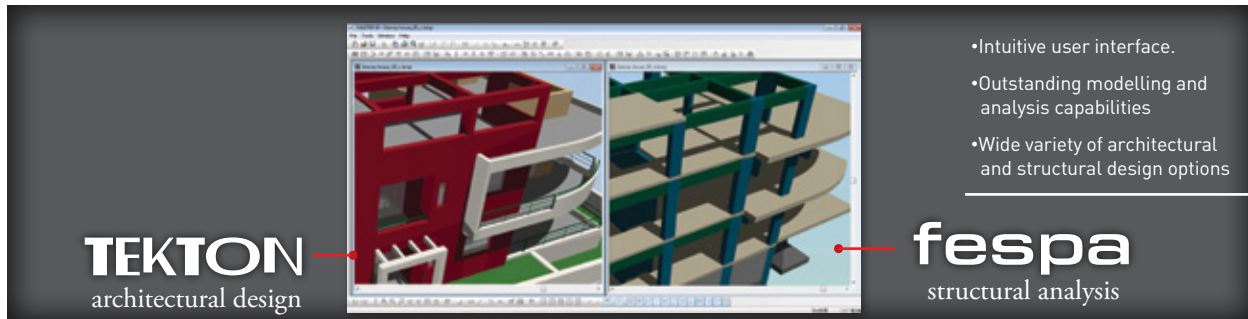
Book - Tekton User's guide: [http://www.lhlogismiki.gr/en/book\\_category/Tekton/](http://www.lhlogismiki.gr/en/book_category/Tekton/)

Support - Visit our support centre: <http://www.lhlogismiki.gr/en/support/support-centre/>



# 10. The ultimate BIM experience

## Complement Tekton with Fespa



Tekton and Fespa compose the combined architectural and structural program of LH Logismiki operating in one common user interface. Thus, the designer uses one software

throughout all the phases of the project: the architectural design model is complemented with the structural model. Then the analysis and design of the structure is performed and

all the necessary architectural and structural drawings are extracted, from site plan to reinforcement details, without changing workspace environment.

### “Architectural and structural software in one”

Fespa is a 3D structural software for the analysis and design of structures, comprised of linear and surface elements, of different materials and arbitrary cross-sections, subjected to various loading conditions. With Fespa the structural engineer creates structural models rapidly and easily due to its versatile and intuitive user interface and its wide range of structural design tools.

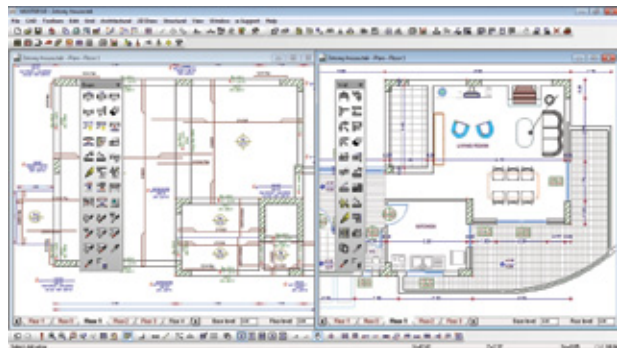
Fespa covers all phases of a structural design project from the structural analysis to the production of a fully integrated construction documentation and series of drawings. After the completion of all calculations structural drawings for each

floor are automatically created, automatic and consistent column and beam details are also derived. Fespa is also equipped with the module R which performs repair and strengthening of existing RC buildings and evaluation of the seismic performance of the new buildings.

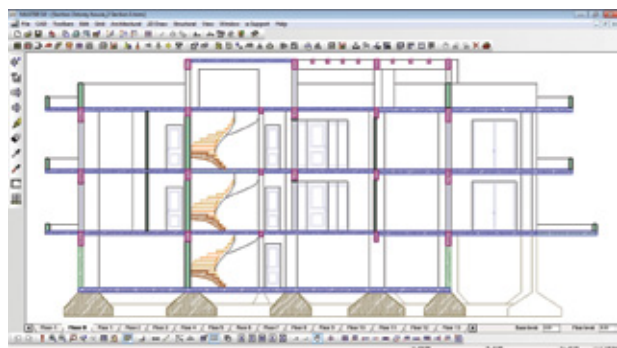
Download Tekton trial version for free!  
Visit our website and start experimenting now!

<http://www.lhlogismiki.gr/en/downloads/trial-versions/>

By choosing the appropriate standards the design engineer has in their hands the best tool for designing earthquake resistant structures provided in areas of medium or high seismicity.



One common workspace environment for both the architectural and structural design of buildings



Section view of both architectural and structural elements

#### Links

Video - Navigating the user interface of Fespa: <http://youtu.be/WRuFkXDvAT8>  
See more about Fespa software: <http://www.lhlogismiki.gr/en/products/structural/>  
Trial version - Download: [www.lhlogismiki.gr/en/downloads/trial-versions/](http://www.lhlogismiki.gr/en/downloads/trial-versions/)

# TEKTON

architectural software



**Developer:**

**LH Logismiki**

**A:** 23 Strournari street

Eksarhia, 10682,

Athens, Greece

**E:** lh@lhlogismiki.gr

**T:** +30 2103835324,

+30 2103302861

**F:** +30 210 3836657

**W:** www.lhlogismiki.gr/en

: lhlogismiki

: LH Logismiki



Change for better

**RAM CADD SYS**

**International Dealer:**

**India**

**Ram Caddsys Pvt Ltd**

**A:** No:10 (Old No:8), 50<sup>th</sup> Street,  
7<sup>th</sup> Avenue, Ashok Nagar,  
Chennai, India. Zip: 600 083.

**E:** info@ramcadds.in

**T:** +91 44 2474 3955

+91 44 2474 3966

+91 44 2371 7641

**F:** +91 44 2489 6097

**W:** www.ramcadds.in

**Seeking partners!**

Want to become a dealer?  
Please contact us for further  
information

**Download trial version for free**

[http://www.lhlogismiki.gr/en/  
downloads/trial-versions/](http://www.lhlogismiki.gr/en/downloads/trial-versions/)