



Projection / Mapping Tools

(included in « Graphic & Wrap » Package)

TYPE3 CAAV5, developed by GRAVOTECH MARKING S.A.S. the leader in Engraving solutions with over 26 years experience and over 55.000 users worldwide, is more than just a basic TEXT module.

The PROJECTION and MAPPING feature within TYPE3 CAAV5 directly benefits CATIAV5 users by applying text, logos, symbols, numbers etc... on a variety of 3D shapes.

1. Why propose so many different Projection and Mapping possibilities ?

We recommend 5 different strategies which fit any required configuration. Our vast experience in the engraving world has taught us that when it comes to applying 2D artworks on 3D surfaces, all these strategies are required to fit aesthetic, manufacturing or graphic chart constraints. TYPE3 CAAV5 is the only solution on the market to offer such a selection.

2. I create a text, then project or map it on the surfaces. What about if I need to change afterwards the position of the text or any of its parameters ?

TYPE3 CAAV5 which is fully integrated into Catia allows any 2D text created prior to the projection/mapping operation to be edited. It is also possible to adjust:

The support and/or the text
Or select one or more of its features (font, size, kerning, position ...) to get the full modification of your model.

Surfaces can be one patch or more complex ones.

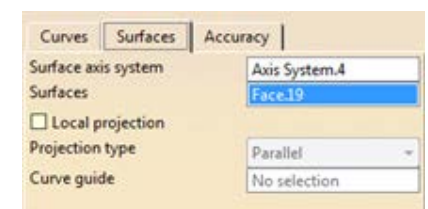
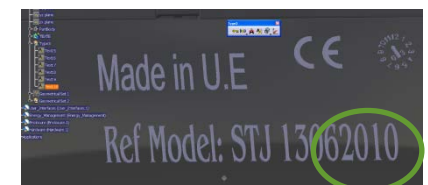
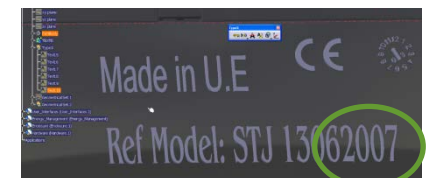
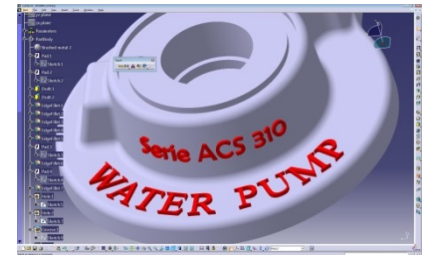
3. What is "PROJECTION"

A projection allows for curves to follow a surface according to an axis direction. For instance a curve can be adjusted on the "Z" direction, while the X and Y coordinates remain untouched.

TYPE3 CAAV5 has 2 types of projections available:

- Parallel : according to the Z direction
- Local : contour elements are projected one by one onto the surface.

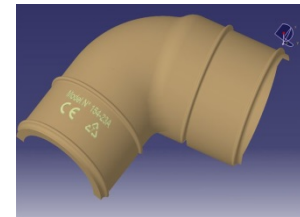
The "local projection" is often used when the 3D shape contains intense variations, such as sphere. The curves in this instance will be projected one by one onto the surface.



4. What is “MAPPING” ?

You have 3 strategies available : Basic, Cylindrical or Conical.

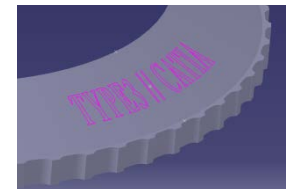
- **Basic** : used on a single patch surface. It will follow the U/V direction.
- **Cylindrical** : used when the surface shape is close to a cylinder-like form. Surfaces can be multi-patch surfaces.
- **Conical** : used when the surface shape is similar to a cone-like form. Surfaces can be multi-patch surfaces.



5. When we create Text and Logo with Type3 CAA V5, and once projected or mapped on the surface, what kind of entities do we build in CATIA V5?

A feature text is created in CATIA’s tree. It can be modified by accessing all parameters individually without having to edit the feature text. A logo which has been vectorised is by default converted into CATIA curve.

The end result of a projection or mapping are curves. Users can then proceed to use various operations such as: split, extrude, thick surface, projection/mapping, ...

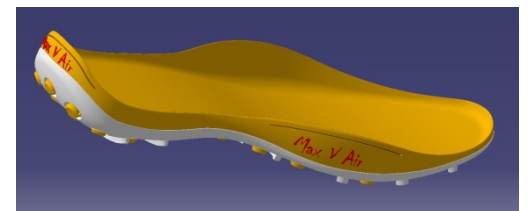


6. How to adjust and control positions of my curves to be projected or mapped on my surface?

You can define the curve and surface axis system by defining a reference point on an axis or on the surface itself.

The significant benefits are:

- Precision in controlling the positioning.
- Any changes made to the 3D model are automatically applied to the machining.





GRAVOTECH GROUP



TYPE3-CAA
SOFTWARE SOLUTION

FAQ



About Gravotech

The Gravotech Group is the worldwide leader in the design, manufacture and distribution of innovative solutions for engraving, marking and artistic modelling.

Its offer is built around four brands: Type 3, Propen, Technifor and Gravograph. These brands cover four key technologies (laser, mechanical engraving, scribing and micropercussion) supplemented by a wide range of consumables and software solutions.

Based in the Lyon region of France, Gravotech has over 900 employees in over 100 countries. The Group boasts a vast international network: 29 subsidiaries and 300 distributors work alongside its 60,000 international customers, assisting them with their local or global issues.

