













.ArtCAM Pro










Tools:



	<p>Case out New - the new file - Opens to a new model.</p> <p>The real size of the required physical model of the model is entered (in the present units), must enter the Height and the wide one.</p> <p>It consists with a slid bar of of resolution of the model is to say what finely is divided. The finished one that you can obtain finally when mechanizing to the model depends on the fixed resolution.</p> <p>For example - if you went to prepare a model that has 100mm of wide and put the resolution to 100 points, the smallest step in the model will be then 1mm. If you put the resolution to 1000 points, the smallest step will be 0.1mm.</p>
	<p>Case out Open – files opens an existing model already.</p> <p>TheTipo-Escoja archives the required data key in of the list.</p> <p>ArtCAM Model (* art). It opens archives that contain information associated with models, even the images in 2D, image of tiff, PCX, GIF, and JPEG. These formats of the file are used to read images created by other applications.</p>
	<p>Guard to – the present disc model cases out Save Salva Archives -.</p>
	<p>Case out Information - File of Information - Opens a dialogue that shows the present dimensions of the image.</p>
	<p>He allows to select a rectangular region of the image enclosing it with a rubber tied the box. The left button of the mouse in a corner of the noticeable region presses the button and with the held button, it drags the cursor to the opposite corner. The box can re-classify according to the size when it wants making click in an edge or corner and dragging mouse. To move the click of the box and to drag within the box. Once created the noticeable region it can be used for the Court, Copy and Creates the functions of the example. Selecting the button again and they will clear the box of the unfolding.</p>
	<p>Edit Cut - the Court Reviews - Cortes outside the part at the moment selected of the image and places go to the paper holder.</p>

	<p>Edit Copy - Review the Copy - the Copies of the part at the moment selected of the image and places in the paper holder.</p>
	<p>Edit Paste - the Paste Reviews - the Pastes bitmap of the paper holder in the present image.</p> <p>The Professional of ArtCAM can stick only bit maps and vectors of the Paper holder.</p> <p>You can use the Paste for the following operations:</p> <ol style="list-style-type: none"> 1. to stick the work of art from a file to another one 2. to reproduce the work of art within a file 3. to copy the work of art of another application in ArtCAM For <p>Bitmaps: in selecting to the Paste movement the cursor in the present Vista. You will see a then rectangle (the size of the object in the paper holder) moving with the cursor. Pressing the button the cursor will put a copy of the object in their work of art.</p> <p>The vectors: They will put automatically in the art work. If you want to move the vectors then selecciónelos using the button in Main toolbar. The mouse upon the vector moves until the cursor changes and then the vectors can crawl to the required position.</p> <p>The paste without the Color of the Bottom</p> <p>If you tighten and maintain the capital key that although, you are positioning the map of bites with the key of left mouse of hand, the map of bites will stick without the color of the bottom. The color of the bottom is taken as píxeles from the hand of the map of bites.</p>
	<p>Edit Undo - the last modification in order Undoes.</p>
	<p>Edit Redo - It returns to last the exhausted reviewed in the order.</p>
	<p>2D View Notes - the Vista in 2D of Notes - Opens a window where you can enter the commentaries.</p>
	<p>Help Index - the Index of the aid - Opens the File of Aid in the Page of the indicated Index.</p>

Barra de Ejemplos contains the tools to manipulate an existing image. Most of these orders also it can be in the Menu of examples.

	This order allows to put the size of the model in real the PU.
	This order allows to place the position of the model selecting in particular pixel and the Xy- coordinates assigned to him.
	This option reflects the complete image (bitmap or map of bites & the vectors) in the horizontal direction.
	This option the image makes a complete mirror of the image (bitmap & the vectors) in the vertical direction.
	This option turns the complete image (bitmap & the vectors) in 90 degrees in the sense of the needles of the clock.
	This option turns the complete image (bitmap & the vectors) in 90 degrees in sense anti schedule.
	This option allows him that it adds the borders to the image in the wished side.
	This option annuls all bitmaps of the image and games of bottom to the present primary color.
	This order generates an image of the balance of grays of an existing relief.

BITMAP TOOLBAR



The Drawing tools contained in the drawing created with tools to create and to alter the drawings of bitmap. It must be had it presents/displays that the tools available within ArtCAM mainly think about the use to alter the work and will not match the degree of the tools found within the specialized painting and will draw the programs.

This tool allows him that it selects one or more vectors as the degree of extensive operations (It transforms, Group etc.)







The simple Vector:

Select the button and you click in the required vector.



d Vectors: Select the first vector previously and then it in the same way selects the additional vectors with the held capital key. Drag a box around the required vectors.

s in the Bitmap Toolbar and Vector Toolbar venience.		
	It draws a line in píxel extensively. Píxeles is dragged to the primary color at the moment selected when the cursor clicks in the image. Pressing Shift the drawing with the present secondary color changes.	
	Dot a line of primary color. The size of the brush and forms are fixed by the selector of the detailed Brush underneath.	
	This option of dilution in the present color primary upon píxeles that is of such colors like in píxel which we have clicked. Only píxeles which they can be reached of píxel original has their changed color. It is quite common for the diluted one that it fills unexpectedly through the limits - if this happens reviews the use – then Deshágase can fix the hollows in the limit.	
	It draws a line that uses the present brush and the primary color. Position the mouse to píxel where the line is going to begin, then it presses the left button of the mouse and drags the cursor to the position where the line finishes. When the button of the mouse loosen the line will be added to the image. The thickness of the line as large as depends the selected brush.	
	This option allows to directly select to the primary color and the secondary one of the image. Pressing the button of the left mouse in píxel colored they will select that color like the primary color. Pressing Shift while the secondary button of the mouse is pressing it selects that color like the secondary one.	
	This pinto option using the brush at the moment selected to polish the edges or parts. This option is only available when it is possible to be smoothed. When the button clicks with the button of the mouse, the area under the brush that shows the smoothing one, the polisher is slow in the active image, is to say is smoothing what only takes place under the brush.	

	<p>This button opens the trowel of colors and allows to define and adds the new color to the trowel of Vista colors in 2D. Selecciona a color of the map of the Colors basic allows him to add additional colors. If a basic color is not required, can define a Customized Color.</p>
	<p>This pinto option with the present brush in the primary color, but only upon areas that are secondary colors at the moment.</p>
	<p>This is an option to dilute the primary color, but it will stop when it is with píxeles of the present secondary color.</p>
	<p>This Option allows him to make a copy of a vector in the map of bitmap. Bitmap produced píxel of wide will be of 1 in the primary color.</p>
	<p>It creates bitmap by dilution that is filled on the inside of the limit of a way of the vector that uses the present primary color.</p>
	<p>This tool is used to select to the form of the brush and size. Click in the form next to the speedboat to change of a square to a round brush. Once selected the form of the brush, it can use the speedboat to put the size in píxeles. When the speedboat moves sample the size with which we go to underneath.</p>












Barra de Vectores, contains the tools that you need to draw the vector graphics, along with the tools to turn the vectors to the grafica area.
Information can be here on the correction of detail of forms of the vector

Editing a Vector

The tools to manipulate the forms of the vector will be found ahead in

Vector Editing Toolbar

	<p>This tool allows him that it selects one or more vectors with the intention of extensive operations (Transforms, Group etc.)</p> <p>The unique Vector: Select the button and you click in the required vector.</p> <p>The multiple Vectors: Select the first vector previously and soon it selects the additional vectors plus the capital key held (shift) to Drag a window around the required vectors.</p>
	<p>This tool allows the user to measure the distance between two points, the angle between those two points and to the axis of X and also the change in X and between both points.</p>
	<p>This tool allows him to create a rectangular vector. Click and you maintain the left button of the mouse and drag the mouse to produce the rectangle. Then OK in the assistant of dialogue of ArtCAM presses, to accept or to cancel the changes. Maintaining the capital key simultaneously it produces a square.</p>
	<p>This tool allows him creates an elliptical vector. Click and you maintain the button of mouse of left hand and drag the mouse to produce the ellipse. Then the button of OK in the ArtCAM of dialogue of the Assistant presses to accept the points or to cancel to leave the changes. You also can review the form doing click and prolonging to the handling pursuer altering the data in the dialogue picture before pushing button OK.</p>
	<p>This tool allows that you draw a form to pulse. There are two ways to draw the continuous form or of points.</p>
	<p>This tool allows him that it creates an ellipse formed by the vector. Click and you maintain to the left button of the mouse and arrástrelo to produce the ellipse. Then click presses button OK. You also you can review the form doing and prolonging the pursuer of it handles or altering the data in the dialogue before giving OK.</p>
	<p>This tool allows him to create a polygon formed by the vector with three or more sides. Click and you maintain the button of mouse of left hand and drag the mouse to produce the polygon. Then OK in the assistant of ArtCAM presses to accept the points or to cancel the changes.</p>
	<p>This tool allows him that it creates a star formed by the vector with the three of points or most outer points. Click and you maintain the button of the mouse of the left hand and drag the mouse to produce the internal or outer points of the star. Then the mouse moves and makes click to create the next position of points.</p>

	This option is used to add the text to the image. When the option is selected, the cursor of the vertical line allows the position of the exit of the text to be indicated, clicking in the image will unfold. Once the position of the exit has been indicated you can begin with the writing of the text.
	This tool allows him that it surrounds the text of the vector around a curve of the vector. You also can select any other vector and can surround them around a curve. First he selects the curve for the text, pushes the button of the assistant of I engage in a dialog of ArtCAM. Drag the individual letters around the curve until you it is then contentment with the adjustment and presses Ok to accept the changes or To cancel to leave them.
	This option creates the Ways of the Vector to the limits of the Primary Color.
	This Option allows him to make one copy of a vector in bitmap. Bitmap produced pixel of wide will be of 1 in the primary color.
	It creates bitmap by dilution, that fills within the limit of a way of the vector that uses the present primary color. Click in the button for more details
	It puts all the Ways of the Vector selected in a Group. The Ways of the vector are grouped so that they can have the same properties of the group.
	Acquittal the grouping of vectors that have been fixed with the order of the Vectors Of group. The individual vectors are once again available to review.

VECTOR EDITING TOOLBAR



This publisher contains the orders to select and to make the general manipulations in vectors that or have been created or they have been concerned.







The tools to create the forms of the vector will be found in Vector Toolbar.

Vector Toolbar

Information can be here on the correction of detail of forms of the vector:

Editing a Vector

	<p>This tool allows him that it selects one or more vectors as the objective of extensive operations (It transforms, Group, etc.)</p> <p>The unitary Vector: Select the button and you click in the required vector.</p> <p>The multiple Vectors: Select the first vector previously and in the same way it selects the additional vectors with the held capital key and forms a rectangle around the required vectors.</p>
	<p>This button opens the Dialogue of transformation where you can scale the selected vectors.</p>
	<p>This button opens the Dialogue of transformation where you can Move the selected vectors.</p>
	<p>This button opens the Dialogue of transformation where you can Turn the selected vectors.</p>
	<p>This button opens the Dialogue of transformation where you can incline the selected vectors.</p>
	<p>This button opens the Dialogue of transformation where you can Copy the selected vectors.</p>
	<p>This button opens a Dialogue where you can smooth the selected vectors.</p>
	<p>This button reflects the vectors selected on a vertical line that crosses the point of the center of the vectors.</p>
	<p>This button reflects the vectors selected on a horizontal line that crosses the point of the center of the vectors.</p>
	<p>This button fits the edge of the left side of vector(s) on the brink of madness selected the left hand of the last selected vector.</p>
	<p>This button fits the edge of the right hand of vector(s) that it selected, on the brink of madness the right hand of the last selected vector.</p>

	This button fits the edge of the top of vector(s) that on the brink of madness selected the top of the last selected vector.
	This button fits the edge of the bottom of vector(s) that on the brink of madness selected bottom of the last selected vector.
	This button fits the center of vector(s) that it selected to the center in the axis of X of the last selected vector.
	This button fits the center of vector(s) that it selected to the center, in the axis of and the last selected vector.
	This button fits the center of vector(s) that it selected to the center of the last selected vector.
	This button fits the center of vector(s) that it selected to the center of the Vista in 2D.

RELIEF TOOLBAR



	Load Relief Button - Loading the Button of Alivio/Pulir/Relieve - This tool allows him that it loaded an existing lightening. When the lightening has been chosen, a dialogue is opened where you can choose how she will be combined with an existing lightening. The option available will depend on the type and size of the lightening that it has loaded.
	Save Relief Button - the Relief Keeps - This tool allows him that it keeps a relief to the hard disk. This is recommended to make before you carry out the irreversible procedures like combining or sticking the reliefs.
	Paste Relief along Vector Button - the Relief throughout the Vector Beats - This tool allows him that 3D sticks ArtCAM clipart throughout a vector or group of vectors. Clipart can be descascarar with the direction of the vector. This is very useful to create or to repeat the effects throughout a lightening like in the link of a chain 3D.art, of the group can create a long chain.
	Replace Relief Button - the Relief Replaces - This tool calculates the definition of present Relief and replaces any existing lightening.
	Reset Relief Button - the Relief Restores - Any existing Relief recovers To put to zero, is to say is annulled.
	Add Relief Button - a Relief Adds - This tool calculates the definition of present Relief and it adds it to the existing Relief.
	Subtract Relief Button - the Relief Subtracts - This tool calculates the definition of the present relief and it reduces it of the existing relief.
	Highest Relief Button combines - the Highest Relief Combines - This tool calculates the definition of the present relief and it combines it with the existing relief, retaining the highest points of both.
	Lowest Relief Button combines - the Lowest Relief Combines - This tool calculates the definition of the present relief and the existing combination, retaining the lowest points of both.
	Swept Profile Extrude - the swept Profile Pushes towards a was - Generates a relief based on outside Pushing a profile of the vector throughout a curve.
	Swept Profile Spin - the Sweeping of the Profile - Generates a relief based on spinning a profile of the vector, around the vertical axis.
	Swept Profile Turn - the Sweeping of the Profile - Generates a relief based on surrounding a profile of the vector around him, is to horizontal axis.
	Two Sweep Rail - Two Sweepings of the profile - Generates a relief based on sweeping a symmetry of the vector throughout two curves of the way generating a relief.
	Weave Attending – Wizard of Plot or Weave - a lightening based on sweeping a section of the vector throughout a way Generates or cutting itself in curve to generate a relief of woven model.
	Constant Height - Constant Height - Allows him that it creates constant relief of heights of a game of closed vectors. This allows him that it makes the Signboard of Constant Height.
	Create Ring – Creation of Ring – Creates and surrounding color in 3D of the relief of the ring to help the visualization of the model.

RELIEF EDITING TOOLBAR



The orders of the relief publisher offer an ample range of options to modify an existing relief.






	Scale Relief Height - To smooth the Height of the Relief - This tool opens a dialogue in which you can flatten or smooth the height of the relief.
	Smooth Relief - the Smoothed one - This tool opens a dialogue with which you can flatten outside by the waves in the lightening.
	Texture Relief - the Smoothed one of the texture - This tool accedes a dialogue that allows him that it adds the textures to the surface of the lightening.
	Invert Relief in Z - the relief in Z Invests - This tool invests the relief in z-axis, is to say vice versa of the male to the female or.
	Invert Male/Female Relief - the relief of Macho/Hembra Invests - This tool along with invests to the relief in z-axis a mirror image.
	Offset Relief - the relief Compensates - This tool creates a new relief that is compensated of the existing relief by a constant amount.
	Zero Relief Under Colour - the Relief Under the Color Puts to zero - This tool has the effect to put that part of the relief that is back below the chosen color, to put it in the flat base.
	Zero Relief Not Under Colour - the Relief Under the Color does not put to zero - This tool has the effect to put that part of the relief that is not back under the chosen color.
	Sculpt Relief - the Relief Carves - This tool allows you to create the alterations carving to pulse the relief.









MACHINING TOOLBAR

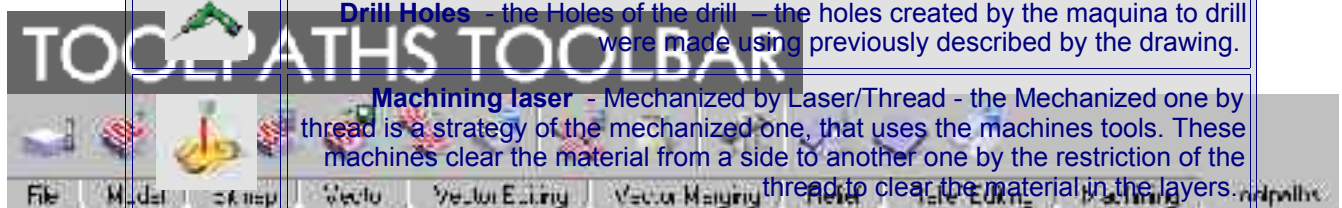






The bar of Mechanized contains the bellboys to accede to the Dialogues of Properties of Mechanized; the assistant of I engage in a dialog of Mechanized 2D, the accumulation and Specialist of Dialogue Mechanized of the lines of mechanized followed and the Dialogues of the Simulation. In these dialogues you can prepare the parameters to mechanize that you wish to record or guides through baryes different

strategies of the mechanized one that they use the Assistant of ArtCAM and then it simulates the generated Toolbox and finally accepts they in a format that their CNC can recognize for being able to mechanize.





	Create Raised Feature - the Salient Characteristic Creates - This tool opens a dialogue in which you can define the properties for a projection (the male).
	Create Recessed Feature - Cree the Incoming Characteristic - This tool opens a dialogue in which you can define the name and depth of a serration (the female).
	Create Recessed Centreline Feature - It creates Lines of Center - This tool opens a dialogue in which you can define the name and depth of a serration (the female). The only difference to the previous button, is that with this order the serration describes only the way of the center of the tool of the mechanized one.
	Display Feature Properties - the Properties of mechanized unfold - This tool unfolds the properties of the mechanized one that you have put previously.
	Remove Feature - the Mechanized one Clears - This tool clears the name and properties of the projection or it fit of the delineated vectors.










	Z Level Roughing Wizard – the Assistant of the level next to Z - the plane of security next to Z. the mechanized one becomes in steps.
	Inlay Wizard - Attending of Inlay - This page allows to create many types different from inlays and insertions. The inlay 2D is a strategy of the mechanized one to mechanize the male and the females who will fit together.
	Profiling Wizard - the outlined Assistant of - Outlined 2D creates a tool to mechanize around the interior or outside of the selected vectors. If a conical tool (angular) ArtCAM is used it will calculate the required displacement based on the diameter of the tool to the depth of the finished one.
	2D Area Clearance Wizard - the Assistant of mechanized of Area 2D – the strategy of mechanized by areas, this cradle in the limits of the vector at the moment selected. You specify the depth that you wish to mechanize and one or more tools, the parameters of cut associate and options of the strategy for each tool.
	Line Carving Attending Wizard – for the Carving by Line of center centers - the Carving by the center allows to mechanize the planes using the Nose of the tool. The center of the tool follows the line of the center of the work plan and the depth of the cut is varied with the wide one of the design of the tool.
	Draw Drill Holes - It draws the Holes of Drilled - Defines a drilled hole and to draw it in the Vista 2D. This hole that Taladro uses then can be mechanized.
	Drill Holes - the Holes of the drill – the holes created by the maquina to drill were made using previously described by the drawing.
	Machining laser - Mechanized by Laser/Thread - the Mechanized one by thread is a strategy of the mechanized one, that uses the machines tools. These machines clear the material from a side to another one by the restriction of the thread to clear the material in the layers.



	Save Toolpaths – Guardar the trajectory - This tool opens a dialogue in which you can record the trajectory of the mechanized one and in the specific format that can read its Post-processor.
	Simulate Toolpath – Simulation of the trajectory - This order generates the simulation of the trajectory of the tool, like when this one makes the mechanized one.
	Reset Simulation - the Simulation Restores – Restores the changes made in the present simulation to the previous ones. This is not just like to annul the simulation.
	Delete Simulation – Anula the Simulation - It annuls all the simulations of or the tools.

This Table of Tool contains all the orders necessary to create and to simulate a Mechanized one.

	Setup material – the Configuration of the Material - This tool opens a dialogue in which you can prepare the material in gross.
	New Toolpath - New Group of Tools – This defines the new instruments to me of tools, then it opens to the assistant of Tools, where you can define the parameters.
	Toolpath Information - the Information of the picture of tools - Opens a dialogue in which the parameters can be seen that have been fixed for the mechanized one.
	Calculate Toolpath – Calculo of the Mechanized one - This tool begins the mechanized calculation of the present one.

	Save Toolpaths – Grabar the Table of Tools - This opens a dialogue in which you can keep the mechanized one in specific format to send to Post-Procesador.
	Copy Toolpaths - the Mechanized one Copies - This order allows him that it copies mechanized the present one with a new name.
	Delete Toolpath – Anule the Mechanized one - the present one Annuls mechanized.
	Calculate All Toolpaths - All the Mechanized one Calculates - This recalcula you order them of all the mechanized one defined (not only the present one).
	Toolpath Summary - the Summary of the Mechanized one - This order opens Sumaria that shows to the parameters and scenes for all the defined mechanized one, along with the time of the considered mechanized one.
	Toolpath Database - the Data base of Tools – This order opens Base of data of the toolbox and you can maintain a list of the same ones.
	Simulate Toolpath – Simulation of the Mechanized one - This order simulates the mechanized one and creates a smoothness in the mechanized parts and shows accurately how it will appear when it is mechanized.
	Reset Simulation - the Simulation Restores - Restores the previous simulation. – This is not equal to that annulling the simulation.
	Delete Simulation - the Simulation Annuls - Annuls all the simulations of the Toolbox.

Zoom lens In - There are three ways to enlarge a part vertically in individual of an image.



1.



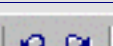




Select the magnifying glass and you click in the center of the area that you wish to enlarge.

2.

Select the magnifying glass and you drag to form a box around the area that you wish to enlarge. The box will be made raising vertically to form the window.

3.

You also can enlarge the particular area of the image moving the indicator of the mouse upon the area of the image. You wish to make raise the window drags vertically, while she is holding the Ctrl key in the keyboard and pressing the right button of the mouse.

	Zoom lens out – Zoom lens of reduction Shortcut zoom lens - She makes move away the image - You also can make move away to a particular part of the image, moving the indicator of the mouse upon the area of the image that you wish to move away. Also he can do maintaining it the capital key of the keyboard and to press the button of the correct mouse.
	Previous zoom lens - he returns at sight previous.
	Zoom lens 1 to 1 - the Vista will be drawn to the real size.
	Zoom lens to Fit - This option alters the correction factor automatically so that the complete image simply is visible within the window.
	Vectors zoom lens - This makes vertically raise the selected vectors so that they simply are visible within the window.
	Draw/Undraw Vectors the Vectors of a drawing - When the button is clear (the gray light) the ways of the vector are visible, when the button is strong (dark gray) the ways of the vector are invisible.
	Draw/Undraw Bitmaps – In the unfolded bar of commando of the bit map of colors. When the button is depressed (the gray light) bitmap is visible, when the button is strong (dark gray) bitmap is invisible.
	Undo – Redo buttons - To undo or to erase the last revision in the order in which 2D was carried out in the Image.
	Link All Colours - This order unites all the colors, except the secondary color, in the present trowel of colors. See Colors - Link all colors .
	Unlink all colours – Unlink to all the colors - This unlinks of the order of all the links in the trowel of the colors present. See Colors - Reset all links .
	Link/Unlink colours - the link/the colors of Unlink - the Links of the Secondary Color to the Primary Color or unlinks the Secondary Color of the Primary Color in the present Vista 2D. The Link/Unlink sees the Color -. The same order has been created clicking in the trowel. See Colour - Link/Unlink . The same order has made clicking  that in the trowel.









Merge colours - the color Fuses - This order changes all the pixels in the secondary color in the image to the primary color. The secondary color is remote of the trowel of the color. **See [Merge - Color/Fusion](#)**

3D VIEW TOOLBAR



The Window in Vista 3D is used to draw Joints, Parts of Tools and Simulations. When the Vista 3D is selected you will see that there are tools by the top of the window. These bellboys control how the objects will be drawn.

The first five controls of dynamic views.

 3D MANIPULATION	This one is the predefined way that allow to manipulate the image 3D in X, and and Z around a central point.
 3D BREAD	This way allows to move the image around the screen.
 ZOOM LENS IN	Dragging a window in the Vista 3D this way, the Vista 3D will make enlarge the area defined by the window.
 ZOOM LENS OUT	Clicking with button of mouse in the Vista 3D drains the window.
 ZOOM LENS OUT	Clicking in this button of the Vista 3D becomes to the factor of the previous zoom lens.
 ZOOM LENS TO FIT	This puts the factor of the zoom lens to be able to see the drawing in the center of the window.

The next picture shows the different points of view in which the image can be seen.

ISOMETRIC VIEW	This one is the predetermined isometric view.
X-Axis VIEW	This one is the Vista that watches downwards of x-axis
And-Axis VIEW	This one is the Vista that watches downwards of the axis and
Z-Axis VIEW	This one is the Vista that watches downwards of Z-axis
ZOOM LENS TO FIT	This opens the zoom lens to draw on the window.

Next the six bellboys of control show the detail of the drawn connection.

LOW DETAIL	Only 25% of the reference lines are drawn.
MEDIUM DETAIL	Only 50% of the reference lines are drawn.
HIGH DETAIL	All the reference lines are drawn.

DRAW ZERO PLANE	The drawing this in the work plane. And one visualizes next to the origin.
DRAW X and and	If It draws in planes X and and, the lines by the relief in the top of the image will be deduced.
ORIGIN	The origin is marked in the Vista 3D.

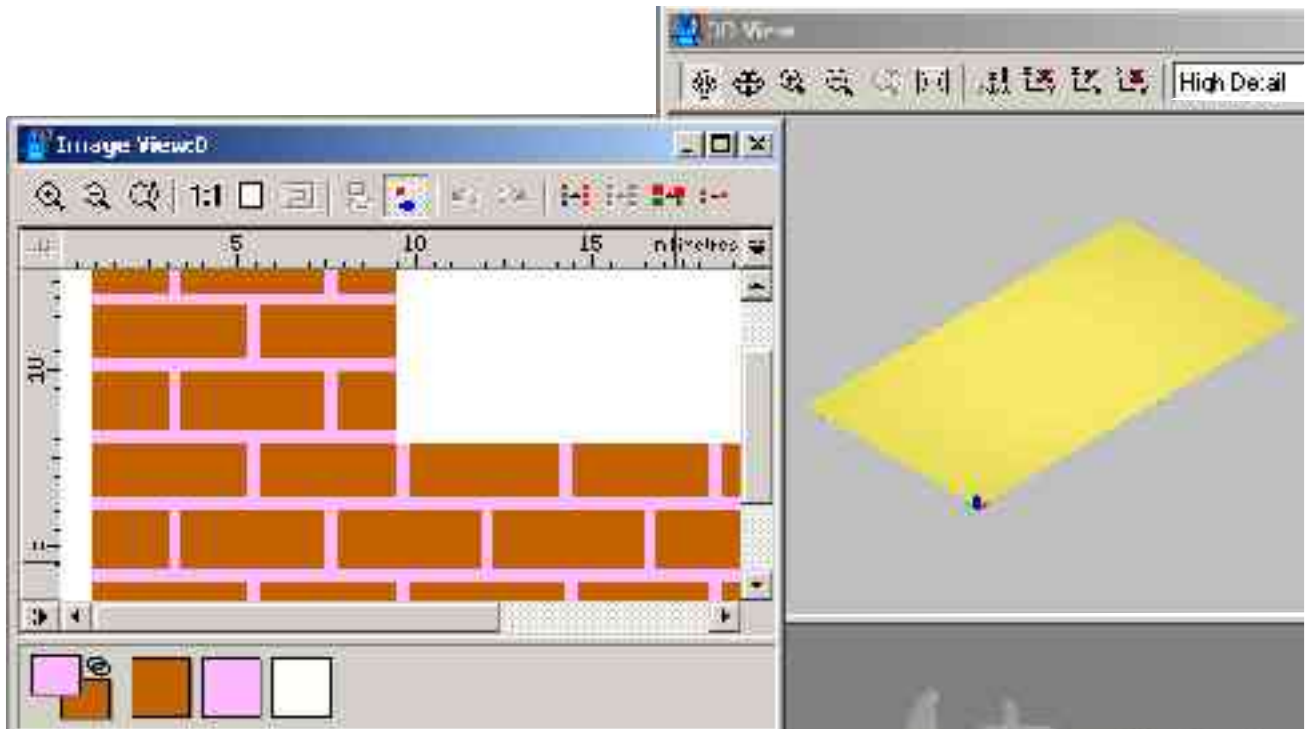
The three next controls are used in the views 3D.

OBJECTS TO DRAW	This option unfolds a list of all the tools of calculations and of the simulation, it allows to select which of all the parts this visible one and as happens to be invisible. The selected objects are marked in the blue color.
COLOUR SHADING	If the Color Darkens the Vista, selects the filling of the simulation of the parts to replace with a clear color but.
DRAWING OPTIONS	3D of the drawing puts the Vista to generate better graphs.

The dark Color is particularly useful to evaluate the smoothness of the joint. You can see the waves and other irregularities of the surface that are not visible with lines of normal drawing, even though are dragged in the high details. The best way to evaluate the quality of the mechanized one is to carry out a simulation and to observe joints.

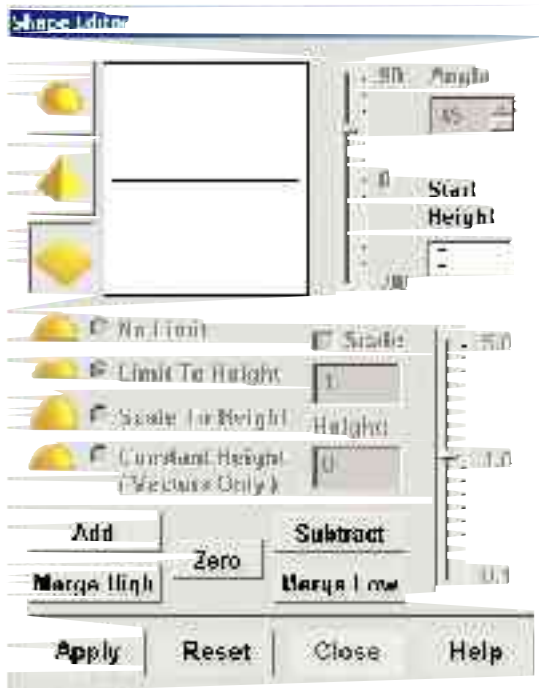
The control of the dynamic views. In addition to the directions fixed to the views previously you decipher, you can have movements of views 3D with the mouse in dynamic form.

In this example we will leave from an obtained image of one bottom of screen for PC. Which is the following one:



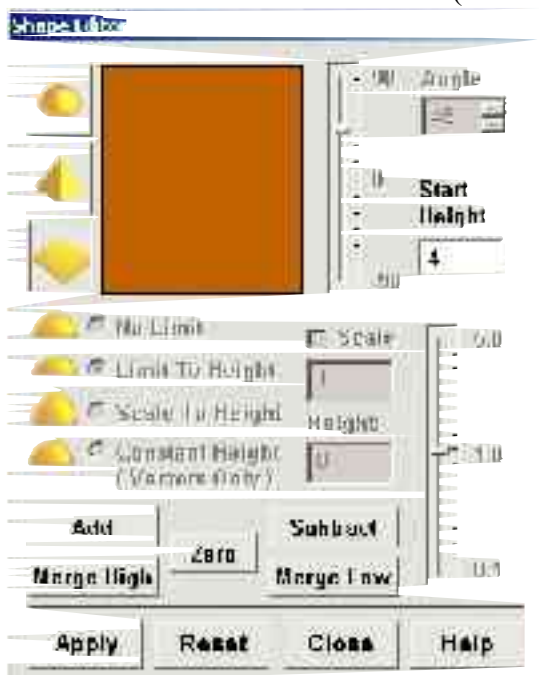
In the image (View:o) a bottom of white color can be observed, the bricks and the cement of color lila. To which we are going to them to place the corresponding properties according to the respective colors.

We click double with mouse on the part of the bottom of the image (white color) and we give the following properties him.



As it can be observed in the picture of I engage in a dialog, one is a planar area, which is on the datum level, and has a height of 0mm.

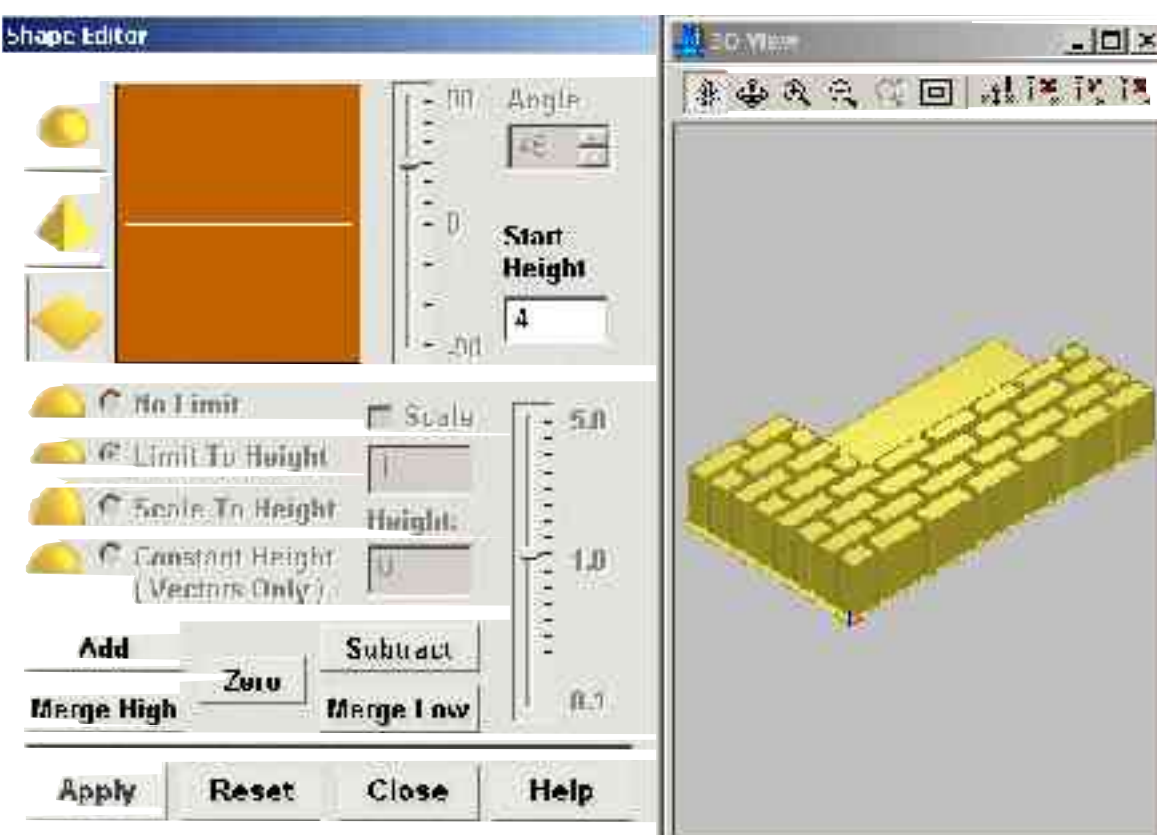
We added, we saved and we kept the changes in the file.



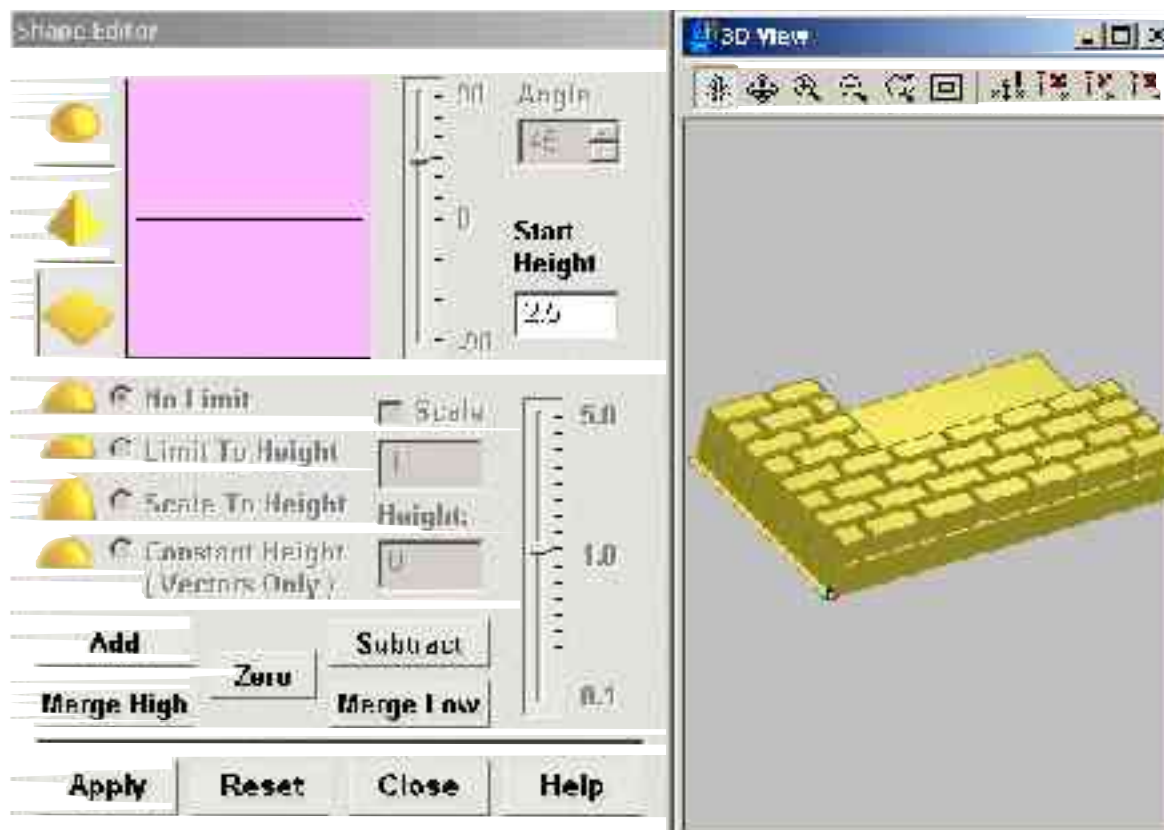
We click double with mouse on one of bricks of the image (brown color) and we granted a height to him of 4mm. This is on relief.

When we applied the changes, we can observe that in the Vista 3D the bricks with their respective height have been generated already. If we are in agreement with Is entered data,

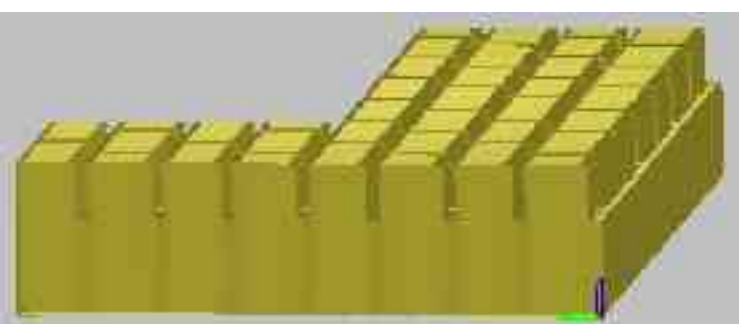
We applied and We kept changed the model to them.

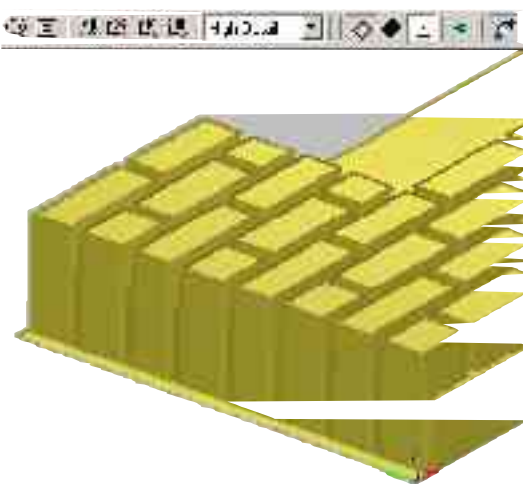


Now the only thing which it would reduce is to give the thickness him corresponding to the glue, which goes has to be of 2.5mm.



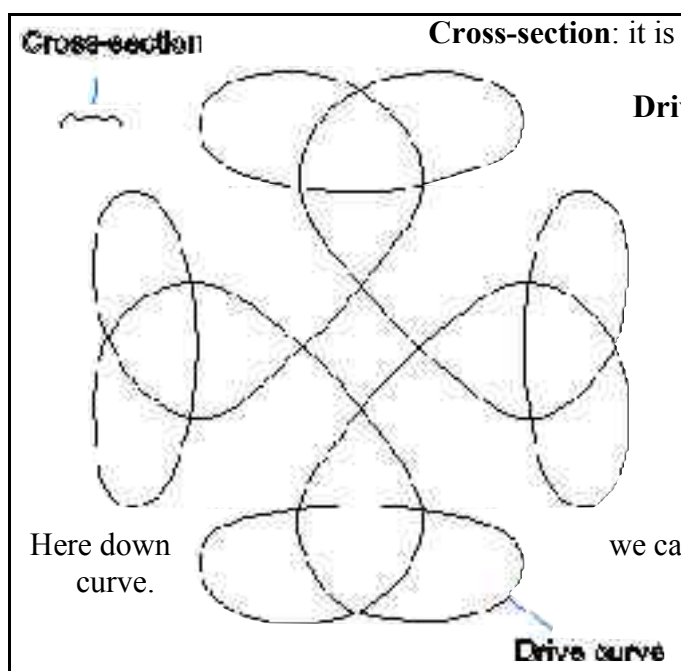
Here we have an extension of a sector of the image.





Of this form it is demonstrated as from a simple image geometric forms in images can be obtained 3D and in solid surfaces.

In the following example we are going to observe as of one it curves and a predefined profile we obtain a surface.



Drive curves: curve by which we are going to develop the generated section.

As we see is developed the section by all the curve generated in the plane.

we can observe in the diagram in 3D the development of the



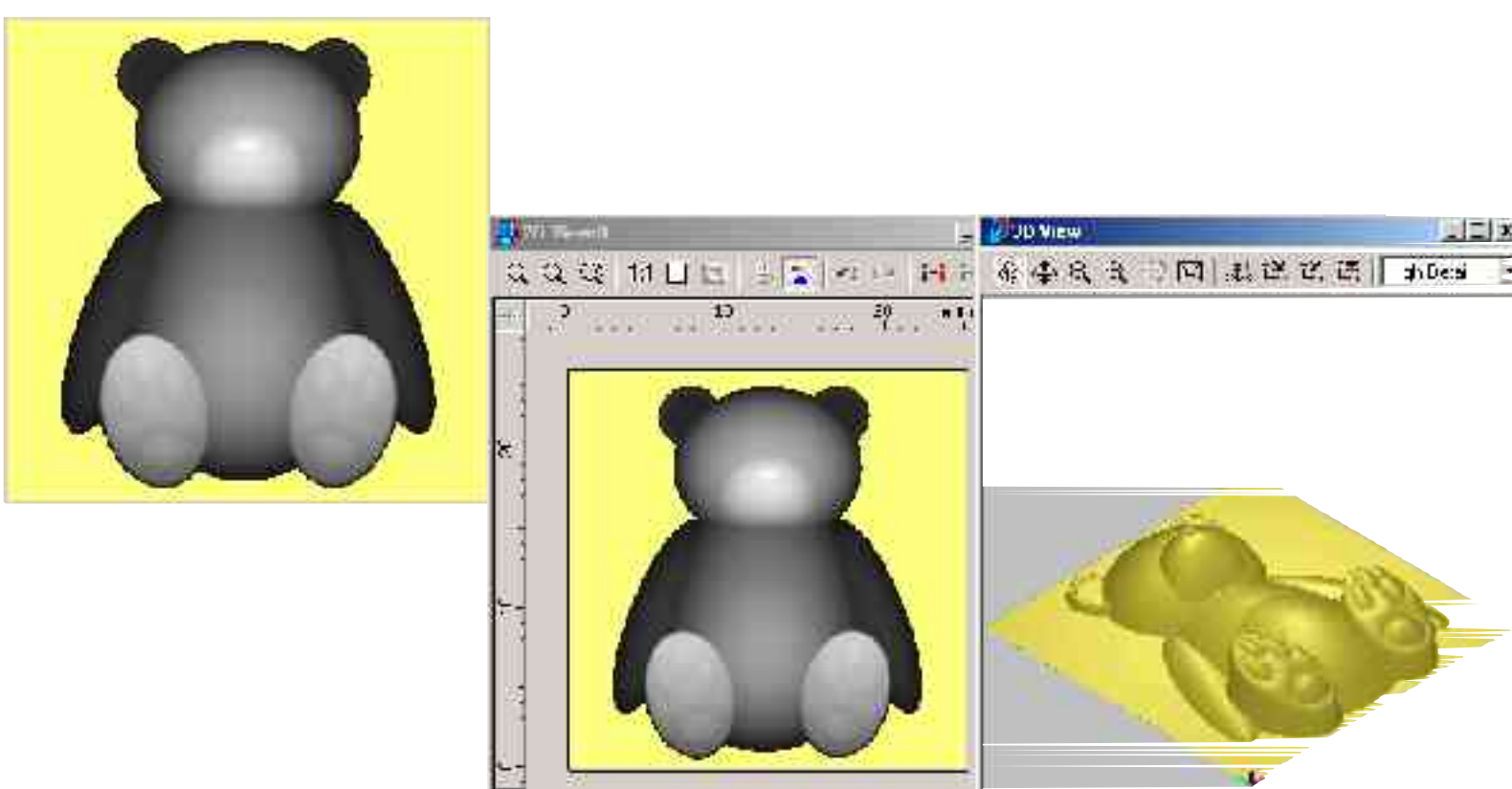
Example: The Bear.



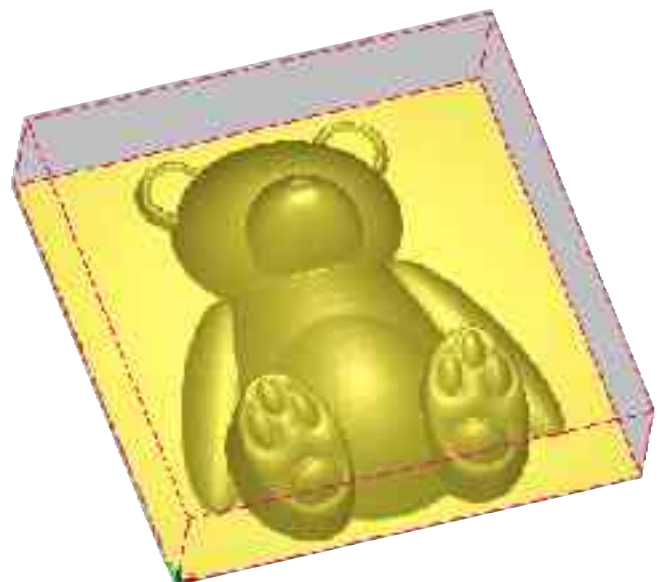
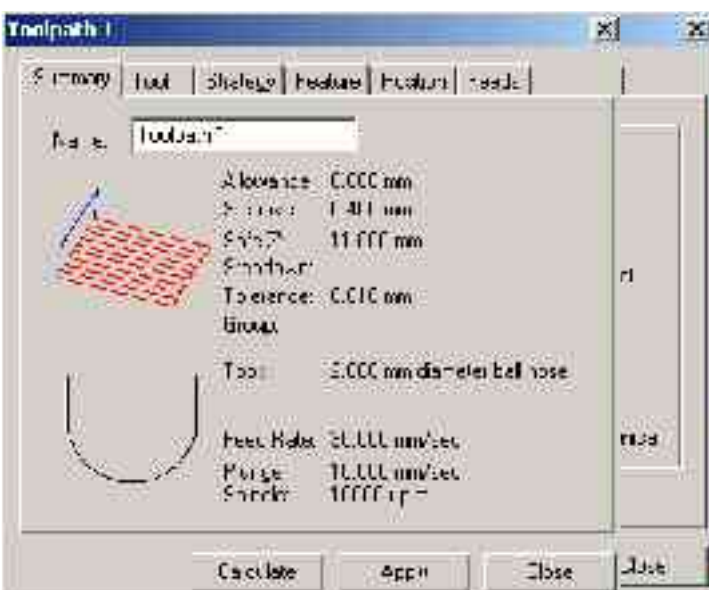
We left from the image in gray scale, which is exported of any drawing program. The images that can be raised can be of the following extensions.
Tiff, PCX, GIF, and JPEG.

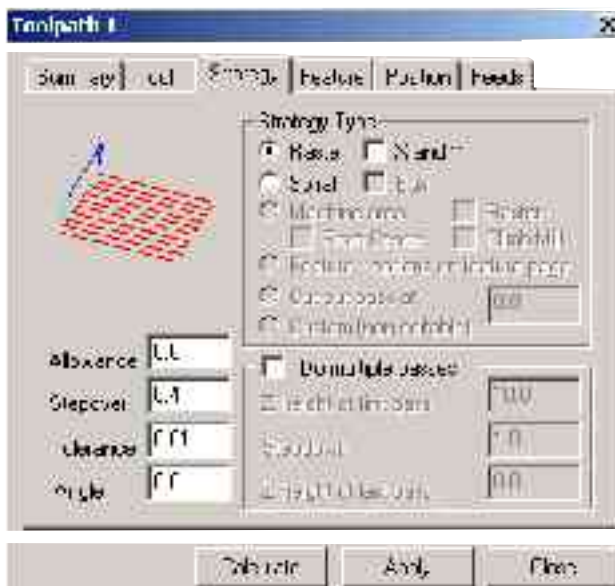
With this option we projected all the points of the drawing in gray scale to the plane, soon to be able to obtain its image 3D and to treat it like so.

Once we have projected the image we obtain the model 3D. Which is to us useful to mechanize it.



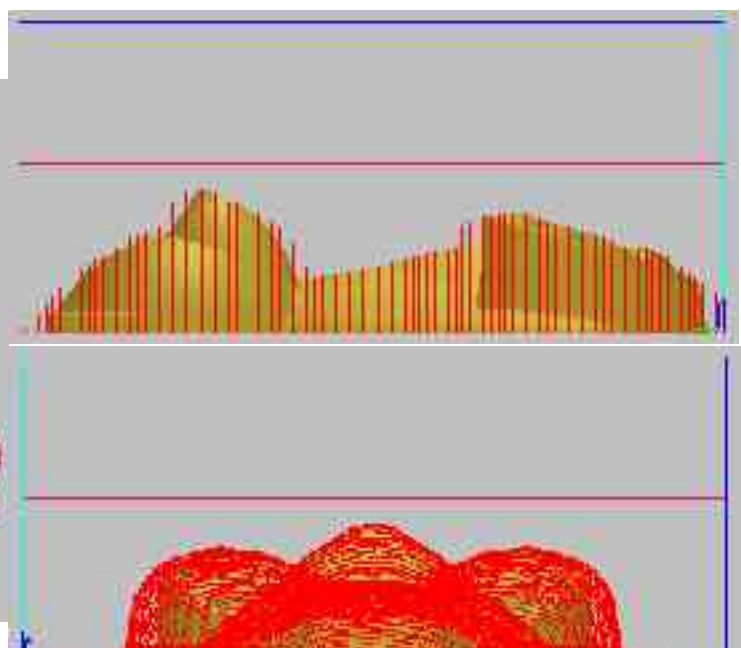
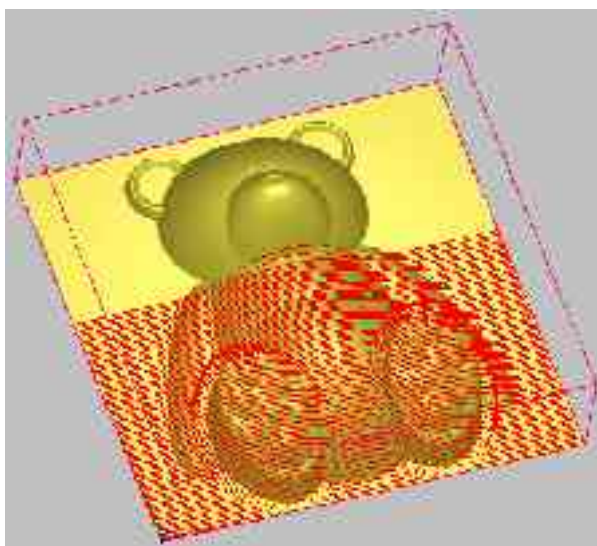
The following step is to classify the tools of mechanized using, this talks about the characteristics of the tools: type, if she is round, conical, etc.





In these pictures the steps can be observed to follow for the configuration of the tools for the mechanized one: it forms gives the tool, the last one, the depth of roughdressing, advance of the strawberry, speed of cut, tolerance, etc.

Here we put to see in different views the mechanized one obtained.



The next example will be treated in a following delivery the development that means the treatment of an image and its respective characteristics, soon to be mechanized yet.
Of the same one an example but in format appears avi.

Example: The Light.

