



# Gemini Newsletter

4.03.2011

<b>Document type</b>	<i>Technical documentation</i>
<b>Related to</b>	<i>Gemini CAD Package, release X9 / 4<sup>th</sup> March 2010</i>
<b>Document version</b>	<i>Release 1.0 / 4<sup>th</sup> March 2010</i>
<b>Developed by</b>	<i>Gemini Cad Systems - Iasi, Romania</i>

## Contents

Information and useful advices .....	4
New features in Gemini.....	5
Gemini Pattern Editor .....	5
1. The import of the *CUT , *DXF, *PLT files.....	5
2. The DXF multiselection import.....	5
3. The import of the *AAMA files.....	5
4. Check patterns ready to cut.....	5
5. Show/hide the copy of the pattern .....	6
6. Snap to grid .....	6
7. Extended curve.....	6
8. Grid size .....	6
Gemini MTM Server .....	6
Gemini Cut Plan .....	7
1. Export model index.....	7
2. Planning algorithm.....	7
3. Warning message.....	7
Gemini Nest Expert .....	8
1. Share mode .....	8
2. Show all patterns instances.....	8
3. Pattern dimension information.....	8
4. The import of the *CUT , *DXF, *PLT files.....	9
5. Export model index.....	9
6. Import AAMA features .....	9
7. Multiselection Standard DXF import .....	9
8. File order save.....	9
9. Add marker .....	9
10. Pattern area measurement unit .....	10
11. Weight measuring unit.....	10
12. Marker report text .....	10
13. Waste option.....	10
14. Cutting direction.....	10
15. Update model .....	10
Gemini Nest Server .....	11
1. Problem folder .....	11
2. Server log .....	11
3. Search in log.....	11

Fixed errors.....	12
Gemini Pattern Editor.....	12
1. Display picture .....	12
2. The import of the *CUT , *DXF, *PLT files .....	12
3. Interpolate option .....	12
Gemini Cut Plan .....	12
1. Excel report.....	12
Gemini Nest Expert .....	12
1. Excel report.....	12

## Information and useful advices

1. We made it our goal to make our software competitive and that is why our customers` suggestions are of utmost importance in helping us improve the software. For that, we would like to thank them. In our continuous attempt to improve the applications, the X9 version of the Gemini package there were added some new features that are meant to help the users. Also, it is possible that the new functions automatically solve some problems that the users might have had so far.
2. Most of the new features are already on the new version of the applications and they are also explained in the Gemini Newsletter. This is why studying the Newsletter is highly recommended. The current document includes only the latest changes of the applications, compared to the previous version. If you have an earlier version of the Gemini package, you should read all the Newsletters released in the meantime.
3. The version to which this document refers to can be downloaded manually from our website, [www.geminiCAD.com](http://www.geminiCAD.com), the download section or fully automatically, using the Gemini Shield application. Using the Gemini Shield software you will be able to see if the latest version from the website is supported by your license. Also you will be able to automatically update the Gemini applications.

**Warning!** You can update your software only if your system is still in the warranty period or if you have a service contract for the Gemini software. To check your warranty period please check the Gemini Shield.

4. To find out what software version you are using, you can check the date shown on the splash image, when opening the application, or check the Gemini Shield.
5. For more detailed information regarding the new functions you can check the X9 version of the Gemini User Manuals or the Appendix which will be available in the days to come. If you do not have the Appendix yet, please contact someone from our technical support department.
6. For any problems, questions or suggestions you might have, please feel free to contact us:

tel./fax.: +40 232 237 546  
e-mail: [sales@geminiCAD.ro](mailto:sales@geminiCAD.ro)  
OR  
contact your distributor.

## New features in Gemini



### **Gemini Pattern Editor**

#### **1. The import of the \*CUT , \*DXF, \*PLT files**

The new version brings improvements regarding:

The import of the U and V notches in the \*cut, \*dxf and \*plt files. In the import window there are several new settings which influence the notch import:

- “max notch distance”: the maxim distance between the pattern contour and the main point of the notch
- “max notch length”: the maxim distance between any notch vertex and the main pattern segment
- “max notch width”: the maxim length of the main pattern segment

#### **2. The DXF multiselection import**

The user has now the possibility to import at a time more than one DXF file. To import multiple DXF files, select the DXF files while you keep pressed the SHIFT key from the keyboard. If the files are not in consecutive order, you can select them by using CTRL key from the keyboard.

#### **3. The import of the \*AAMA files**

The new version brings improvements regarding the exterior V notches at \*AAMA import files. Each notch will be characterized as it follows:

Notch feature	Notch type
Length	If a notch has only length feature, than it will be imported as I notch
Width and Length	If a notch has both length and with, it will be imported as V notch
Angle	If a V notch : -doesn't have angle , than it will be imported as V exterior notch -has angle, than according to the notch vertex (inside or outside of the pattern) the notch will be imported as interior V notch or exterior V notch.

#### **4. Check patterns ready to cut**

It has been improved the way is applied the function “Ready to cut patterns” regarding the overlapped notches. Now will be displayed an error message whenever are detect overlap notches. This kind of error will not be fixed automatically, the user has to check and delete the overlapped notch

*Attention: If during the pattern check, an error message appears, it is necessary to restore the pattern check.*

### **5. Show/hide the copy of the pattern**

To the “Save” button has been added a new function called “Ghost”. When the function is active, will be generating automatically a copy of the selected pattern. Once the function is unchecked the ghost pattern will be hide. Any changes made on the original pattern will be applied to the ghost pattern as well.

### **6. Snap to grid**

To the “Show/hide grid” button was added a new function : “Snap to grid”. Once this function is active the user can snap the patterns to the grid using the ALT key from the key board. The snap function is available to the “Draw Tool” mode as well.

### **7. Extended curve**

In “Shape Tool” mode, at the option “Extended curve” was added a new function “Auxiliary parallel”. Using this function it will be possible to create in the exterior or in the interior of the pattern contour a parallel contour which will be defined as auxiliary pattern. Using this contour the user can do the following : contour measuring, trace mode and contour reshape.

### **8. Grid size**

The user has now the possibility to change the grid dimension. In “Settings” window, “Design” tab was added the possibility to give different dimension for the grid on the vertical and horizontal direction.



## **Gemini MTM Server**

Gemini MTM Server is a stand alone application that creates multiple project (model) files in queue mode. This application needs information files generated from body scanning and also project (model) files; new project (model) files which have the information from the body scanning files will be obtained.

More detailed information regarding the Gemini MTM Server application can be found in the Gemini MTM Server documentation.



## *Gemini Cut Plan*

### ***1. Export model index***

The user has now the possibility to add an index on the pattern.

#### **How it works:**

The new function of adding an index on the pattern is applied for the cases when there are added more than one model. In “Settings” window, “Plotter settings” tab, “General settings” tab, the option “Export model index” must be checked. At PLT export an index will be added to each pattern. The use of the index is to help the users to identify the patterns that belong to a model.

### ***2. Planning algorithm***

The planning algorithm regarding multiple fabrics has been improved in order to obtain a lower number of markers. If there is only one fabric, will be applied the previous algorithm.

### ***3. Warning message***

A warning message will be displayed if the marker length is bigger than the recommended marker length. The message will be displayed at the \*cut and \*plt export both from GNE and GCP.



## Gemini Nest Expert

### 1. Share mode

Due to the fabric properties, the use of a single ply cutter, there are situations when the fabric can not be spread and the marker must have the roller length, or there can be situations when the user need to have as many complete products as possible on a single roller. As a solution to these issues was added the “Share mode” function, meaning that when the function is enabled the entire order will be shared – the order models will be shared between all the order markers.

#### How it works:

##### a) Settings to enable the Share mode

The user must set the “Fabric length” from the “Marker settings” window. To enable the shared marker nesting, the user must check the option “Shared marker nesting” from “Nesting option” tab. Together with this function can be checked also “Nest complete sets”, option that will be applied at automatic nesting and will place entire/complete bundles.

##### b) Share mode

After the 1<sup>st</sup> marker is complete, in order to obtain another marker, select the option “Select marker” and in the displayed window select “Create new marker”. A new marker can be added only if the setting “Shared marker nesting” is checked. A marker that was already added can be deleted with only if the selected marker is not the active marker.

To each marker that will be added can be applied its own marker length.

During the use of Share mode, certain function as “Bundle grouping” and “Size by size” become unavailable.

In the left side of the marker there are information regarding the pattern quantity: number of placed patterns/ total number of patterns left to be placed / total patterns number. Once the entire pattern quantity is nested, the user still can place patterns on the marker but only manually.

*Important: Any changes made to the pattern quantity will be automatically updated to all markers from the order.*

*Share mode is also available in GNE Server application. When the option is enabled, during Server nesting the marker concept is replaced by the order concept, meaning that the nesting will be done for orders and not for marker. If there are available quantities in an order, that order will be considered as partial nested. During share mode the re-nesting is done on the entire order.*

### 2. Show all patterns instances

In “Pattern properties” table there is a new option “Show all pattern instance” .By default this option is unchecked. Once the option is checked in the “Pattern properties” table will be displayed all the instance of each pattern (besides the existing ones). The instances will be displayed in grey color. According to each instance type, it will be displayed using the a suffix : Fx, Fy, Fxy. The user can make active any needed instance by adding a quantity.

### 3. Pattern dimension information

When a pattern is selected in the nesting area, its dimensions (length, width) are displayed now in the pattern info label from the right side of the screen.

#### 4. The import of the \*CUT , \*DXF, \*PLT files

The new version brings improvements regarding:

1. the import of the U and V notches in the \*cut, \*dxf and \* plt files. In the import window there are several new settings which influence the notch import:

- “max notch distance”: the maxim distance between the pattern contour and the main point of the notch
- “max notch length”: the maxim distance between any notch vertex and the main pattern segment
- “max notch width”: the maxim length of the main pattern segment

2. there will not be generate anymore line type elements. Each element will be designed as a two point's polyline.

*Attention: the axis line setting is still available, and any element which doesn't apply to the setting will be deleted*

#### 5. Export model index

The user has now the possibility to add an index on the pattern.

##### **How it works:**

The new function of adding an index on the pattern is applied for the cases when there are added more than one model. In “Settings” window, “Plotter settings” tab, “General settings” tab, the option “Export model index” must be checked. At PLT export an index will be added to each pattern. The use of the index is to help the users to identify the patterns that belong to a model.

#### 6. Import AAMA features

The new version improved the AAMA import regarding patterns quantities.

In the import window there is an option “Split half quantities to flip Y” By default this option is unchecked. When is checked, pattern quantities will be split in 2 bundles: half of quantity will be set for bundle in 0 position and the other half of the quantity will be set for bundle in Fy position. For the cases when the quantity is an uneven number, the split will be done as it follows: half quantity + 1 pattern will be set as bundle in position 0 and the rest will be set as bundle in position Fy.

#### 7. Multiselection Standard DXF import

The user has the possibility to import more standard DXF files at once, by multiple selections. All the standard DXF files will be imported to the same project.

**Note!** The Multiselection is possible only if the import type is set to “project”.

#### 8. File order save

The order file saving was improved. In the User option window was added two options : “import file name” and “model fabric” . By default these two options are unchecked. The options can be checked singular or together. Accordingly to checked option will be generate the new order name.

#### 9. Add marker

In the “Add marker” window was added new possibilities to add a marker to the current one. Now it is possible to choose the option “at the top” and the marker will be added above the current marker or the option “at the bottom” and the marker will be added under the current marker.

Note: In both cases the option “maximize width” will be disable.

### **10. Pattern area measurement unit**

In the “Marker settings window” / “User option” tab there is the option “Pattern area measuring unit” which now it can be edit. The user can choose from the list the needed measurement unit.

### **11. Weight measuring unit**

In the “Marker settings” window/ “User option” tab was added two options “ Piece weight measuring unit” and “Total weight measuring unit” The user has now the possibility to choose the measuring unit , KG or G for these two features. The measuring unit for “Product weight measuring unit” chosen here will be the same for the measuring unit in the “Marker report” window.

### **12. Marker report text**

Was improved the way the text is displayed on patterns in the minimarker report. In “Marker settings” window/ “Reports” tab the followings changes were made:

- if is checked the option “only cut line” the patterns in minimarker will be full colored and will be displayed all the notations
- if is checked the option “Accordingly to plotter settings” the patterns on minimarker will be displayed in full color and according to the settings made by the user in the “Plotter settings” tab. Together with this function can be used also the option “Text split size limit” . This option can have values from 0.07. The user has also the possibility to browse a plotter profile, in this case the patterns from minimarker will be displayed accordingly to the browsed profile.
- if is checked the option “accordingly to cutter settings” the patterns on minimarker will be displayed in full color and according to the settings made by the user in the “Cutter settings” tab. Together with this function can be used also the option “Text split size limit” . This option can have values from 0.07. The user has also the possibility to browse a cutter profile, in this case the patterns from minimarker will be displayed accordingly to the browsed profile.

### **13. Waste option**

For the cases when there is necessary to remove the unused fabric, was added the waste option. In “Cutter setting” window, “General settings” tab was added the function “Use cut waste”. By default the option is unchecked. Once the option is checked the waste function is enabled and also the option “Repeat vertical cut distance” Its value is by default 20 cm. It was added as well a waste layer combo in the “Layer settings” tab.

In the “export cut” window will be displayed as well the waste lines, according to the settings made above. The waste lines will intersect the pattern but will be kept only the part of the waste line which is outside the pattern.

### **14. Cutting direction**

Was added a new function regarding the cutting order. In the “General Settings” window, cutter settings tab was added the “Cutting direction” option. This feature has three options:

- By default the patterns will have the same cutting direction.
- Clockwise on the fabric
- Counter clock wise on the fabric

### **15. Update model**

In “File” menu was introduced a separate function in order to obtain the “update model”



## ***Gemini Nest Server***

### ***1. Problem folder***

Was added a new folder called "Problems folder" in the folder structures of the Nest Server. Whenever there is a problem in opening or import of a marker from Input area the order will be moved to the "Problems folder". The advantages are that, the orders will not be looked throw all the nested markers and will be nested manually at the end of the nesting process.

### ***2. Server log***

It is possible now to view different types of messages in the Server log. The error messages (for the cases when none of patterns couldn't be nested or an error accrued during the nesting process) will be displayed in red color and the warning messages (for the cases when some of the patterns couldn't be nested) will be displayed in blue color.

### ***3. Search in log***

Was added the possibility to search in log. The function becomes enable by using the CTRL+F key combination. A new window will be displayed in the right side of the log which contains an option "Search for". To find a text, the user must type in the "Search for" field the needed word and press ENTER or use the two buttons: back and forward. To disable the function pres ESC button.



## **Fixed errors**

### **Gemini Pattern Editor**

#### **1. Display picture**

In the new version was modified the default settings of the “display picture” from the “Change pattern color” window. In the previous version this setting was checked by default which causes a slower program operation. In order to resolve this, now the “display picture” function is *unchecked* by default.

#### **2. The import of the \*CUT, \*DXF, \*PLT files**

There will not be generating anymore line type elements. Each element will be designed as a 2 points polyline. *Attention: the axis line setting is still available, and any element which doesn't apply to the setting will be deleted*

#### **3. Interpolate option**

It has been modified the way the “Interpolate” functions from “Pattern tool” mod and “Shape Tool” mode are applied. Now it's applied as it follows:

- Only curve points are now interpolated. The graded points will remain unchanged.
- Angles smaller than 160 degree will be automatically set as cusp points.
- The curves which are not separated by cusp points will be bound together by smooth points
- Interpolation maxim deviation, default 1mm - means the maxim distance from a point on the initial segment and its curve.
- The notches that were assigned to a curve point, after interpolation will be assigned to the closest grade point. In the cases when there is no grade point on the pattern, the notch will be assign to the closest point that remain on pattern after the interpolation is done.

### **Gemini Cut Plan**

#### **1. Excel report**

It has been customized the excel report; the measuring unit and the unit value are now available in separate cells.

### **Gemini Nest Expert**

#### **1. Excel report**

It has been customized the excel report; the measuring unit and the unit value are now available in separate cells.