Contents

Information and useful advices ........................................................................................................... 4
New features in Gemini .......................................................................................................................... 5
    Gemini Pattern Editor ....................................................................................................................... 5
    1. Export to plotter ............................................................................................................................ 5
    2. Multiple points selection ............................................................................................................. 5
    3. Grading table reconstruction ....................................................................................................... 5
    4. Symmetry axis notches ............................................................................................................... 6
    5. New filter in the measurement table – Drop, Spec, and Extra .................................................... 6
    6. Pattern projection......................................................................................................................... 6
    7. Copy grading ............................................................................................................................... 6
    8. Add dimension for MTM .............................................................................................................. 7
    9. Page scroll panel ........................................................................................................................ 7
   10. Keyboard actions ........................................................................................................................ 7
   11. Internal points option ............................................................................................................... 7
   12. Auxiliary patterns replication .................................................................................................. 7
   13. Import PLT/CUT/Standard DXF ............................................................................................. 8
   14. Export directly the curves and arcs in DXF files .................................................................... 9
   15. Technical screen sketch ........................................................................................................... 9

    Gemini Photo Digitizer ................................................................................................................ 11
    1. New option used to capture an image with NIKON cameras ................................................... 11
    2. Export files to Assyst, Lectra, Investronica ............................................................................ 11
    3. Adjust cell from calibration grid ............................................................................................... 11
    4. Export the curves in DXF files .................................................................................................. 11

    Gemini Cut Plan .......................................................................................................................... 12
    1. Best width .................................................................................................................................. 12
    2. Product quantity ....................................................................................................................... 12

    Gemini Nest Expert ..................................................................................................................... 13
    1. Pattern point reduction ............................................................................................................. 13
    2. Edit patterns .............................................................................................................................. 13
    3. Shade areas ............................................................................................................................... 14
    4. Smart gap .................................................................................................................................. 15
    5. Replicate .................................................................................................................................... 15
    6. Enable group as same bundle ................................................................................................... 16
    7. Import zip files from Assyst and Gerber that contain two or more orders ............................. 16
    8. Import Gerber – labels, alteration .......................................................................................... 16
    9. Import ISO CUT RS274D / HPGL / Standard DXF ............................................................... 16
   10. Minimarker in Excel ............................................................................................................... 17

    Gemini Nest Server ..................................................................................................................... 18

Gemini Newsletter 18.05.2010  Page 2 of 23
Gemini PLT Spooler ................................................................................................................................. 19
1. Print labels .................................................................................................................................................. 19
2. Dashed lines ................................................................................................................................................ 19
3. Stop before/after feed ............................................................................................................................... 19

Gemini Shield ............................................................................................................................................. 20

Fixed errors .................................................................................................................................................. 22

Gemini Pattern Editor .................................................................................................................................. 22
1. MTM – display seam allowance .................................................................................................................. 22
2. Arrange patterns on the cut line .................................................................................................................. 22
3. New default internal point .......................................................................................................................... 22

Gemini Nest Expert ...................................................................................................................................... 22
1. Import of patterns with gap from X8 in X9 ............................................................................................... 22

In working for the next version .................................................................................................................. 23

Gemini Pattern Editor .................................................................................................................................. 23
1. Library with fabric list: .................................................................................................................................. 23
2. A new function used to modify the shape of pattern with a contour parallel: ........................................... 23
3. Extract a certain area from a pattern by making only a single click in that area: ...................................... 23
4. Import MDL files from Lectra: .................................................................................................................. 23

Gemini Nest Expert ...................................................................................................................................... 23
1. The improvement of the nesting algorithm ............................................................................................... 23
2. Copy/paste at the nested patterns ............................................................................................................... 23
3. View and add markers ............................................................................................................................... 23
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 alludes to can be downloaded manually from our website, 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
OR
contact your distributor.
New features in Gemini

Gemini Pattern Editor

1. Export to plotter
   The export to plotter form was adjusted to match the export to plotter from the other applications (Gemini Cut Plan and Gemini Next Expert).
   The modifications are:
   - the pattern preview is now in same position as in Cut Plan and Nest Expert;
   - in preview, the exported elements are displayed in different colors according to layers colors;
   - all export options were reorganized. The export settings that previously were in Export window now are transferred into the Plotter/General settings right up side. (options for unfold and symmetrize patterns);
   - in general settings tab, there is a new setting to align patterns to the grain axis;
   - the patterns bigger than the paper width will be automatically rotated to fit inside. If the pattern is too large to be placed inside the paper width set by the user, even if it is rotated, a warning message will be displayed; in the preview there will appear only that part of the pattern which fits inside the width of the paper, in the position in which it fits better, and only that part of the pattern will be exported to plotter.

2. Multiple points selection
   Application:
   This function can be applied when the user wants to select multiple points from two or more different patterns.
   
   How it works:
   First the user has to access „Shape tool mode“; then in order to select multiple points from different patterns, he must keep the SHIFT key pressed while selecting the points that he needs.
   Also the multiple points’ selection from different patterns can be done by using rectangle selection.
   After the selection is applied in the upper menu will be active only the operations that can be applied to all selected points.

3. Grading table reconstruction
   Application:
   This function it is used to reconstruct the grading table, for the similar patterns that are photo digitized, for example a sleeve from sizes: 40, 42, 44, and 46.
   
   How it works:
   In” Pattern tool mode” in order to reconstruct the grading table, after the patterns were photo digitized, you have to follow the steps:
   - edit the grading table;
   - select all the sizes corresponding to the desired pattern;
   - press the button” Reconstruct grading table”.
The result is the graded pattern, displayed on the base size. To have a successful grading reconstruction, the user must respect few rules:

- all the pattern must have a grain axis;
- the selected number of patterns must be the same with the number of sizes added to the grading table;
- the number of grading points must be the same for all selected patterns;
- the number of notches must be the same for all selected patterns;
- the number of auxiliary patterns must be the same for all selected patterns;
- the number of internal points must be the same for all selected pattern.

If one of the above rules is not satisfied a warning window will be displayed, announcing the user about the error.

4. Symmetry axis notches

In “Garment tool mode” after the symmetry axis is set, the user has the possibility to choose how the two notches of the symmetry axis will be applied on the pattern. Two new checkboxes were added in the right side menu:

- one check box for the 1st notch;
- one check box for the 2nd notch.

If the notch boxes are not checked, no notches will be added on the final, symmetrized pattern.

If the notches boxes are checked, then the user has the possibility to choose the type of the notch, the dimension and on which layer the notch will be added. After all the settings are done, the user must press the “Apply” button.

5. New filter in the measurement table – Drop, Spec, and Extra

Application:

- to see the measurement values of one of this dimensions: Grade, Drop, Spec and Extra;
- to make compound measurements between the displayed values from: Grade, Drop, Spec and Extra.

How it works:

If the pattern has only: Grade, Drop and Spec, sizes, after one measurement was made in the “Measurement module”, in order to display one of these sizes in the measurement table, the user has to make right click on a cell from the table, and choose in the opened window, what size/sizes wants to see. For this he has to check one or all of the displayed sizes.

The displayed buttons on the right click menu will be only those for which the patterns were graded.

6. Pattern projection

Now, the user can automatically flip a pattern’s projection along the projection line or against the projection line.

In the “Shape Tool Mode” at the “Declare a part of a pattern to be mirrored projected” button there are now two more options: “Flip along the projected line” and “Flip against projection line”.

7. Copy grading

In the “Grading tool mode” there was improved the feature which copies the grading rule from one group of points to another group of points.

If the user wants to copy the grading rules from a group of points, to another group of points but in counterclockwise direction, he must do the following:

- select the group of points clockwise,
- copy the grading
- select the second group of points but counterclockwise.
When the user wants to paste the copied grading rule, there will open a window that announces that the selection order of the consecutive points is different. The user has two possibilities: to keep the original selection order of the second group of points, or to change the selection order to clockwise direction.

Note: to copy the grading rule, the same number of points has to be selected.

8. **Add dimension for MTM**

It was added a new modality of introducing the dimensions from Measurement table in Size set table, using the “Add dimension” option from the measurement table.

To add a dimension from the measurement table in the Size set table, the user must measure a contour, or a distance between two points from a pattern, must introduce this value in the measurement table and convert it in a dimension in Size set table by using the “Add dimension” option from right click menu. This option is very useful if the user wants to use measured dimension in MTM.

9. **Page scroll panel**

In Gemini Pattern Editor, in the right side menu there was added a “Page scroll panel”. The user has the possibility to press the upper or the lower arrow from the right menu edges in order to see the all the features in the menu, regardless the display resolution.

10. **Keyboard actions**

In the “Garment tool mode” the user has now the possibility to move the text axis using the keyboard arrows as well. If you keep the CTRL key pressed as you drag and move one edge of the text axis, it can be rotated only at fixed angles from the workspace coordinates.

The rotation step is of 15°; thus, the movement will be of 0°, 15°, 30°, 45°, 60°, 75°, 90° from the workspace coordinates.

11. **Internal points option**

**Application:**
This option is used to set the default type and length of the internal point.

**How it works:**
In “Gemini Pattern Editor” in the **Settings** window, there was added a new option for the internal points, which contains two fields:

- “Default internal point type”. Any internal point added manually or automatically will have the type selected by the user for this option;
- “Default internal point length”. Any internal point added manually or automatically will have the length selected by the user for this option.

12. **Auxiliary patterns replication**

**Application:**
Replication in the same position of the auxiliary pieces after the seam or the cut line of a pattern was extracted.

**How it works:**
In “Pattern Tool mode” when the user extracts the pattern on sewing/cutting line, the auxiliary patterns will appear also on the new obtained pattern.

In “Pattern Tool mode” when the user creates a parallel contour to the original pattern, the auxiliary patterns will also appear on the new obtained pattern.
13. Import PLT/CUT/Standard DXF

Beside *.dxf aama files, the user has now the possibility to import *.plt and *.cut files. Also the import of standard dxf files was improved on this version in order to establish from the beginning the elements type according to the layers from file.

To import a file, select from the menu bar the option Project, Import and then the type of files to be imported:
- PLT to import plt files with the extensions: *.plt, *.hpg, *.hpgl;
- Standard DXF, to import dxf files from other programs that may have the *dxf extension.

After choosing what file to import, a window will open where:
- the path from where to import the file is defined

After choosing the path, next step is to set the measuring units by checking one of these options:
- automatic measuring units, for the imported files: *.cut, and *.dxf;

For the standard dxf file import there are two settings that are specific to the files from AutoCAD: import from blocks, and import form entities. By using these settings, the user can import either both elements, either one of them.

The content of the file can be visualized, in a preview window, and underneath it, the user may read the layers, and the commands that are contained by the imported file.

Certain elements will be imported on different layers, which have different commands. For this, there is an option: “Use layer definition” where the imported layers will be read by the Gemini layers.

By clicking the button “PLT layer table”, a window with the following options will appear:
- internal layers – here are displayed the layers from 0..to 9 from Gemini
- import layers – here the user must specify what layers from the imported files will be read by the internal layers. To do this, the following commands must be introduced in the field with the internal layers:
  - SP1, SP2 ...etc., for plt files;
  - M14, M19, M43... etc., for cut files;
  - Layer’s number for dxf files.

If in a field from the internal layers the user wants to introduce two or more commands, they will have to be separated by the character edited in: „Layer delimiter“.

Also in this window there are another two options:
- internal elements;
- import layers.

By editing one or more commands in the import layers field, the corresponding elements will be imported in Gemini Pattern Editor as internal elements: main contour, lines and polylines, notches and points.

If in the import window certain layers were not defined, the elements from the undefined layers:
- will not be imported, or
- will be imported on other layers, where there are no commands specified.

By checking the “Use pattern information” option, the labels of patterns (name, size, name of model) will be imported.

There are two ways to color the imported elements:
- coloring depending on the type of elements (main contours, internal elements, notches, internal points and grain axis);
- coloring depending on the initial layer from the file.
For any change of color, or layer, press the “Refresh” button.
After setting on which layers from Gemini will be imported the layers from the file, the user has a filter from where the notches and other elements that are on the patterns can be identified; so in the “Import filters” field there are the following options:
- import minimum pattern area: the value edited in this field indicates that only the patterns that have the area equal or bigger than this number will be imported;
- detect notches; here the user can edit the values for maximum notch distance and maximum length. Also, in the import cut files window, there is another setting “Detect notches without special command”;
- detect axis, where a value for minimum axis length can be edited;
- detect polylines, where a value for with minimum polyline length can be edited;
- detect internal points, where a value for default point length can be edited;
If all these options are checked then the elements will be imported only if the dimensions are corresponding to the edited values.
In the “Default elements” field, there are two options: grain axis layers and matching point layer; these elements will be imported by default; the user may also change the layer associated to the grain axis and the matching points.
For import of the HPGL files, there is an option: “Identify and remove the marker rectangle”; by checking this option, the rectangle from the markers will be removed and only the patterns will remain.
After changing any value, option or layer press the “Apply” button.
Even so, after making all these settings, there still may be in the file, elements that will not be imported. This can happen because:
- of the undefined layers, when it is chosen not to import them;
- of the elements that are not respecting the import settings for internal elements;
- of some elements resulted after reconstruction.
All these elements will be visualized as leftovers in the preview window and will be colored in red, by default. These elements will not be imported in the Gemini software. To show or hide these leftovers, check/uncheck the “Show leftovers” message.
But in some cases, the user may apply the option “Detection margin”, for example for those elements resulted after reconstruction. In this way the contour may be reconstructed without deforming it with a value bigger than the one from this option.

14. Export directly the curves and arcs in the DXF files
Until now when exporting a dxf, the curves and arcs were converted to polylines. This kind of export it is realized with the R12 profile that exports lines, polylines, points and texts.
In Gemini Pattern Editor, besides the R12 profile there was created a new profile for the DXF export. This profile is called R2000 and is specific for AutoCAD files; using this profile, the curves will be exported as splines.

15. Technical screen sketch
Application:
To export and to print a new technical screen sketch that will include:
- the image of the patterns exactly the way that they are positioned on the desktop and
- the dimensions for the bounding box of each pattern:
  - the maximum length
  - the maximum width,
These are indicated by arrows.
How it works:

In order to export the technical screen sketch, the user must select the Project feature, and then the Print technical sheet/Print screen sketch option from the toolbar. Before selecting this option, the user must set in the Settings window, the Design tab, the dimensions that will be exported. In the Design tab there were added two new options:

- **dimensions on the seam line**; when this option is checked:
  - if the patterns are created on the seam line, in the sketch the dimensions will be displayed on the seam line
  - if the patterns are created on the cutting line, a **WARNING** message will appear, and in the sketch will be displayed the dimensions for cutting line;
  - if the patterns are created on the seam line and the seam line is also displayed, then the dimensions will be displayed according to this setting;

- **dimensions on the cut line**, when this option is checked:
  - if the patterns are created on the cut line, in the sketch the dimensions will be displayed on the cut line
  - if the patterns are created on the seam line, a **WARNING** message will appear, and in the sketch will be displayed the dimensions for seam line;
  - if the patterns are created on the seam line and the seam line is also displayed, then the dimensions will be displayed according to this setting;

The **Warning message** contains the list of patterns that do not correspond to the setting and the displayed dimensions will be on seam/cut line.
1. **New option used to capture an image with NIKON cameras**
   Now, besides Canon cameras, Nikon cameras can be used as well.
   In the “Settings” window, the “Camera settings/calibration” tab, in the field “Camera”, two new options were introduced:
   - CaptureC
   - CaptureW
   When using a Canon camera select the CaptureC option; when using a NIKON camera select the CaptureW option.

2. **Export files to Assyst, Lectra, Investronica**
   In this new release is possible to export digitized models in Assyst, Lectra and Investronica.

3. **Adjust cell from calibration grid**
   **Application:**
   This setting allows the user to not recalibrate the grid after modifying a value from the cell width and cell height.
   **How it works:**
   To change the values for the calibrated grid cells open the “Settings” window, the “Camera settings/Calibration” tab from Calibration and press the Calibrate button.
   In the opened window, there is no need to load the calibrated grid in order to modify the values for the cells. The user must only change the existing values, and then click the “Close” button. The new values will be saved, and when loading the calibrated grid, the dimension of cells will have the edited values.

4. **Export the curves in DXF files**
   The export dxf files feature was improved, by creating a new profile R2000. Using this profile the curves will be imported in other programs as splines.
1. **Best width**

   **Application:**
   When having materials of different widths, this feature can be used to determine on which of the widths the best efficiency and the lower consumption will be obtained.

   **How it works:**
   Click the **“Best width”** button, and then a window will open, where:
   - in front of the “New fabric” field, introduce the values for the widths, with space between them
   - **Set:**
     - the **total time**, so that the value in this field will be divided at the number of the widths introduced by the user;
     - the **marker time**, so for every introduced width, each marker will be optimized with the edited value.
   - press the **Start** button, to begin the optimization;
   - in the **“Info”** field there are displayed:
     - information about the marker in process;
     - the results obtained after the optimization:
       - the efficiency;
       - the length;
   - the allocated time used to obtain these results.

   After the optimization was done for all the widths, the results for efficiency and length of the optimized marker will be displayed in the blank zone from this window. Below this information will be displayed the width for which the efficiency and length are the best.

   To set the optimal width, press the **“Set width”** button.

2. **Product quantity**

   When nesting on a simple layer (one product for each layer) with folded or tubular lays, from each lay will result a double quantity of products on the marker.

   Because of this, in the planning table, each quantity of products for a size it will be added twice (x2) and it will be considered like this when calculating the number of lays.
1. **Pattern point reduction**

When importing patterns in Gemini Nest Expert, from files like gem, plt, cut, dxf, mrk, pt, gerber, assyst or lectra, the curves are transformed in polylines that are connected between them by points. The number of points that form the polyline can be reduced by editing the value in the "Point reduction from pattern import" field, from the "Settings" window, in the "User options" tab. This value is considered to be the default margin when importing a file. By reducing the number of points from the contour, the final deviation against the original contour will not be bigger than the value introduced in the field "Point reduction from pattern import".

In the "Nesting option" tab from "Settings" window, at "Pattern point reduction used in order", the value used at the import is displayed and is applied on any new piece added in the order, without considering the default value from "User options" tab.

This value is only displayed, in the "Nesting options" tab, and it cannot be modified.

2. **Edit patterns**

**Application:**
To make modifications on a pattern from the marker.

**How it works:**
Select the pattern and press the button "Edit pattern".
A window will open where the selected pattern is displayed in the forefront and then, with the help of the buttons: dependent line, parallel, and translated contour, can be made modifications of the pattern contour.
To create one of these lines on the pattern, the points from the pattern’s contour must be selected first. For this, there are three selection modes:
- **grading points**, are activated only the graded points;
- **points with angle wider than**, will be displayed only the points that have the angle wider than the edited value;
- **all the points**, will be displayed all the points.

After creating a line on the pattern, you will make the modification of its contour using the CUT button.

After the pattern was cut, select with a click of the mouse the part that will remain in the marker.

If the modification is made only on the selected pattern, then check the option "Apply only to the selected piece".

If the modification has to be applied on all the patterns from the same bundle, select the option "Apply to all the identical pieces in the same bundle".

If the modification has to be applied on all the identical patterns from the same size, then select "Apply to all identical pieces from the same size".

If after the modification, the user wants to load the original pattern from the model, then select the button "Load the original piece".

If after the original pattern was loaded the user wants to load the modified pattern, then select the button "Reload the nested pattern".

**Observation:**
After the pattern was cut using this function, the seam line will not be reconstructed.

If it is needed to obtain the seam line, the cutting process will be made in Gemini Pattern Editor and then use "Update model" from Gemini Nest Expert.
3. **Shade areas**

**Application:**

After the dyeing process of the fabrics, different shade areas can remain on it, like in the picture.

If the user has to nest pieces on this kind of fabrics, he has to use the **Shade area** function. In this way, he can nest the patterns from a bundle in same shade area.

- If the fabric has lace on the margins, and certain patterns have to include it, the **shade area** function will help the user place the specific patterns tangent to the margins of the marker.

- If the patterns have to be nested on a simple lay, and the fabric was tubular and then cut to obtain a simple lay (see the table below), then on the length of the resulting lay there will be a defect or a line, where the user does not want to place the patterns; by defining a shade area in that zone, no pattern will be nested there.

*The tubular fabric before cutting one margin*  
*Resulted simple lay after the tubular lay was cut and unfolded*

<table>
<thead>
<tr>
<th>tubular fabric / double lay</th>
<th>simple lay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>the resulted defect/ area</td>
</tr>
</tbody>
</table>

**How it works:**

In the **Defects** tab, from the **Settings** window, it has been added a new option called **Shade**. To define this kind of area on the fabric, in the field **“Shade areas properties”**, assign a **Name** to the **Shade area**, and define its width, by editing the values in the two fields: **“from...”**, **“to...”**.

By pressing the button **“Add”**, automatically there will be created a shade area on the entire length of the marker.

To modify the name or the width of a certain shade area, click on the button **“Edit”**.

To delete the shade area click on the button **“Delete”**.

In the properties table it was added the field **Shade areas**, that corresponds to each pattern, and includes the following options:

- **None** – the patterns are nested anywhere on the marker, without taking in account the shade areas;
- **Any** – the patterns are nested anywhere on the defined shade areas, if they are fitting;
- **Lower edge/Upper edge** – the patterns are nested tangent to the lower edges or upper edges of the shade areas, on the marker.

- **The names of the shade areas** introduced in the **Defects** tab from the **Settings** window – the patterns will be placed only on the selected shade area having the chosen name.

Pattern properties regarding shade placement can be of three types: independent, similar and bundle. These properties can be set up in the **“Pattern properties table”** on the **“Shade type”** column.

- **Independent type**: each pattern having this property will be placed on the chosen shade area without forcing other patterns to be placed in the same area
- **Bundle type**: all patterns having this property will be placed in the same shade area
- **Similar type**: all patterns having this property will be placed in the same shade area
Special cases:
- when the fabric has stripes and plaids, or is tubular, and there are defined shade areas, tubular or the stripes and plaids have a higher priority;
- when the patterns are not fitting on a shade area, they can be placed anywhere.

4. **Smart gap**

   In the tab “Nesting options”, the “Smart gap” function was added in the “Gap options” field.

   **Application:**
   If the patterns have gap defined, and the user wants to ignore the gap between the straight lines of the patterns, then he has to use this function.

   **How it works:**
   If the patterns have a certain gap defined, and the option “Smart gap” is checked, then all the straight lines of the gap, that will be tangent, will be ignored, when the patterns will be nested.
   The “Smart gap” can be applied only for straight lines that have a certain length, which will be defined in the field “Only for straight lines longer that ...”.

5. **Replicate**

   At the button “Group/ungroup patterns for thermal bounding” there was added a new option, “Replicate group”.

   **Application:**
   - if the user has 20 sizes and he created a thermal bounding group with the patterns from one size, by using the replicate option there will be created thermal bounding groups, with the same patterns, in the same position, with the rest of the sizes;
   - if the user wants to create matching points between two patterns from a single size, and then he wants this matching to be applied to the rest of the sizes, then the “stripes/plaids group” replicate option can be used.

   **How it works:**
   To use this option, the patterns have to be grouped.
   1. Replicate for **thermal bounding group** can be applied
      First select the thermal bounding group, and then the option Replicate group. A window will open, in which you can select for what kind of group you want to do the replicate; in this case, check - **thermal bounding group**.
   2. Replicate for **stripes/plaids group** can be applied
      First select the thermal bounding group and then the option Replicate group.
      To do a replication for stripes and plaids, from the opened window select the option: **stripes/plaids group**, and two options for “**Distance to keep**” will be activated:
      - keep horizontal distance
      - keep vertical distance
      By choosing one of the “keep horizontal distance”, or “keep vertical distance” options, when the replication of the stripes/plaids group is done, the same distance between the matching points, either horizontal or vertical will be kept.
6. **Enable group as same bundle**

**Application:**
To group two or more bundles as a single bundle, in order to apply for it the same restrictions.

**How it works:**
In the “Settings” window, in the “Nesting options” tab, it was introduced a new option, “Enable groups as same bundle”. After creating some bundle groups in the window “Bundle groups”, and by selecting this option, there will be created a single bundle that will include all the group bundles, and all the pieces from this bundle will be nested together like a single size, and to all the patterns from this bundle it can be assigned the same restrictions.

7. **Import zip files from Assyst and Gerber that contain two or more orders**

When importing orders from Assyst and Gerber, it was added the functionality to import a zip file that has two or more orders in it.
- After the zip file was selected, a window will be open where there are displayed all the orders from file, and the user will choose what orders will be imported, by checking them;
- After the user selection, a new order is created with each selected order from the import window.

8. **Import Gerber – labels, alteration**

**Labels:** Gerber cad sets up the property of an element to be cut, drawn or ignored to export by assigning a letter for that element.

To set correctly the property for the imported elements to be cut, drawn or ignored when a cut file is generated, at the import of the files from Gerber two fields were added:
- one to select the letter;
- one to select the corresponding layer.

Default has to be assigned to these letters the following layers:
- for the letter I has to be assigned the layer 0;
- for the letter D has to be assigned the layer 5;
- the other letters have to be put on the layer 4.

**Alteration:** Gerber can change the shape of a pattern in the marker, without changing the shape of the pattern in the model, by using a separate file named **Alteration**.

When the **Alteration** file is included in the **Order** file, we import the patterns having the shape already changed, according to the specifications from this file.

9. **Import ISO CUT RS274D / HPGL / Standard DXF**

Beside *.cut files and dxf aama files, the user has now the possibility to import *.plt and *.standard dxf files.

Also, the cut files import was improved on this version in order to establish from the beginning the elements’ type according to the layers from file.

To import a file, select from the File menu the option **Import** and then the type of files that will be imported:
- HPGL - to import plt files with the extensions: *.plt, *.hpg, *.hpgl
- Standard DXF to import files from other programs that may have the extensions: *.dxf, and other type of extension.
The only difference in the import windows of these files is that it can be chosen the content of the imported file:
- as model
- as marker

If the file is imported like model then the patterns will be imported in the stock area.
If the file is imported like marker then the patterns will be imported in the stock area, and nested as well, the nesting position being memorized.
To see how the settings in these windows are working, please go to page number 8.

10. Minimarker in Excel

Now it is possible to see the minimarker in the Excel report when exporting in this format, if the “Minimarker” option is checked in the Report window.
Gemini Nest Server

Gemini Nest Server is a new application for nesting multiple markers in queue mode.

The Gemini Nest Server window contains the following options:

- **“Start the nesting server”** button: if there are markers in the input list, once the user clicks this button, the first marker from the list will be processed;
- **“Pause the nesting server”** button: the user can use this button to stop a marker from being processed or to start processing a marker which was put on pause;
- **“Process next file”** button: if a marker is processed and the user clicks this button, the program will automatically save the processed marker and start to process the next marker from the list;
- **“Stop the nesting server”** button: if a marker is being processed and the user clicks this button, the program will automatically save the marker and will stop;
- **“Shot down the nesting server”** button: it is used when the user wants to close the application. If a marker is being processed and the user clicks this button, the marker will be saved and after that the application will be closed.

The **“Folders tab”** contains two windows:

- **Input files**: in this window will be displayed the added marker for the processing. The processing order of the marker is from the top to the bottom of the marker list;
- **Output files**: in this window will be displayed the marker which were processed.

The **“Nesting tab”** displays the marker which is currently being optimized.

The **“Settings tab”** contains general settings, order settings and import settings.

The report file will be created when all the markers from the input window were processed. The report file can be generated either in PDF format or in Excel.

In the tab **“Order settings”** it was introduced a new option, **“Marker widths”**, where the user can edit some width values for the marker, in order to evaluate for which of them he will obtain the best efficiency and length. The values can be edited in this way for one marker: 105; 102 – 110/2; 120. 102 – 110/2 stand for the widths that begin from 102 cm and incremented by 2, until 110 cm.

If in the **“General tab”** the option **“Output Excel folder”** is checked, then for every width a marker has been optimized for it will be created an Excel report, and in the end, a centralized Excel report will be created, where will be displayed all the widths that have been evaluated, and the efficiency and length of the marker for each one.
1. **Print labels**
   In Gemini PLT Spooler in Settings--->Edit profile, there was introduced a new setting, “Print Labels”. This setting is unchecked by default.
   
   **How it works:**
   If this option is checked, the texts that have in front the LB command will be loaded in Spooler and printed; if it is unchecked the texts will not be loaded in the application.

2. **Dashed lines**
   
   **Application:**
   These options are used to plot correctly the HPGL files that contain dashed lines.
   
   **How it works:**
   In the Profile window there were added three options for dashed lines:
   - *Normal* - all dashed lines will be converted in solid lines
   - *According to HPGL* - all dashed lines will be plotted exactly as they are defined in the HPGL file (original type); this option is not available yet
   - *Formatted dash line* - all dashed lines will be converted only to one type of dashed line which will be drawn according to parameters set by the user for line and gap.

3. **Stop before/after feed**
   Because some cutters have the collection area the same with cutting area, it was required to be implemented a new option which stops the cutter before a new feeding. In addition, in PLT Spooler/ Generic flatbed cutter - plotter cutter the *Stop with feed* option was added, in order to collect the cut patterns from the cutting area.
The Shield application was developed to allow the communication between the USB protection key and the Gemini applications. The USB key is a hardware device which gives to user the right to use the software in full mode according to the purchased licenses.

The new version of the Shield application has now more functionalities; beside providing complete information about the dongle registration and contract status, now it can be used for automatic updates of applications, for backup and for automatic update of technical documentation.

The new functionalities are:

1. **Online registration.**
   - In “Register” tab, below the list with licensed application, there are two buttons: Register online and Register offline.
   - If there is an internet connection on the PC where the Shield application is running and if the USB dongle was detected by Shield, the user can use the “Register online” button to make an online activation directly from this application.
   - For some security reasons, there are customers who prefer not to allow an internet connection on the computer on which Gemini CAD applications are installed and used. Because the Shield program can be easily and quickly installed on other PC with Internet connection, the user can choose to install it on a PC with Internet just to make the online registration.
   - In this way, the online registration can be done even if the computers with Gemini CAD systems are not connected to Internet.
   - Register offline button will allow you to load a registration file and to activate the dongle if there is no possibility to activate online and it was received a registration file (*.key).

2. **Automatic update for Gemini applications**
   - The Shield has now the possibility to notify the user about the new versions released (updates), so the user will no longer have to check on the Gemini site for updates. This job will be done automatically by the Shield application.
   - Furthermore, the Shield will manage the entire update process:
     - will check if the installed version is same with last released version;
     - will download the new version;
     - will check and inform the user if he can have access to update according to the warranty or service status;
     - will update the programs.

**How it works:**

Periodically the shield will check if there are new updates.

Excepting the automatic method applied periodically, the user can also check manually by clicking on “Check for updates button”, below the “Update” tab.

In Update tab it will be displayed a list with applications for which an update was found. The Shield application will search the updates for the installed applications, even if some of them are running in demo mode.
The update list will provide information regarding:
- the update status: if an update was found or not ("New version available.", "Latest version." or "New version restricted.");
- installed version: date of the installed version
- update version: date of the last update available on the Gemini update server
- installed path: the path to the installation folder of the installed version

If the user decides to update, he can check only the applications for which he wants update and press “Update” button. When the user checks the applications for update, he must consider the compatibility between versions. The Shield will start to download the updates. During the download process, the user can run any other Gemini application. After the download is ready, the user will be notified and the Shield will proceed to the update installation.

3. Automatic update for Gemini technical documentation

As the applications updates are done automatically, so is the update for technical documentation.
In the “Settings” tab it was added a new option, “Notify me of new documents”. If this option is checked, the user will be informed if there were released new Gemini technical documents.
In the “Update” tab it will be displayed a “Documents” list, in which the user can see all documents released by Gemini and posted on the Update server.
For each document it will be displayed a status, in order to know if it was already downloaded or not:
- documents already downloaded will have the status: “Downloaded”;
- documents not yet downloaded will have the status: “Available for download”.
A document already downloaded can be opened directly from the Shield just by double clicking on its name.
All downloaded documents are saved in the Shield installation folder, inside “Documentation” folder.
Fixed errors

Gemini Pattern Editor

1. **MTM – display seam allowance**
   After any modification applied to a pattern linked by a geometrical layer the seam allowance was displayed. This problem was fixed, and on the current version the seam allowance will only be displayed if the user chooses to.

2. **Arrange patterns on the cut line**
   The “Arrange patterns on the cut line” feature makes now the arrangement of the patterns in the middle of the working area. On the previous versions this arrangement was made to the upper left corner of the page and this caused difficulties for some users to manipulate the working area by dragging it manually (space key selection).

3. **New default internal point**
   On the previous versions, if the default type of internal point was changed the layer associated to this element was not respected. On the current version this problem is fixed.

Gemini Nest Expert

1. **Import of patterns with gap from X8 in X9**
   Because of the differences between how the gap worked on the X8 version (created by translating the contour and possibility to set different values for each side), and how it works in the VX9 there were some problems when converting a file from one version to another. The uniform gap applied to the patterns in the markers created in the X8 version, is now imported as gap in the X9 version, not as block.
   If in the X8 version the gap was not uniform (different values on pattern sides) in VX9 it will be imported as block.
In work for the next version

Gemini Pattern Editor

1. Library with fabric list:
   In the next version the user will be able to create a library of fabrics, where it will be possible to add or remove a fabric type and to modify its name. This list of fabrics will be saved in the interface of the program, so that the user is able to access it every time the application will be opened.

2. A new function used to modify the shape of pattern with a contour parallel:
   A new feature will be added, that will allow changing the pattern’s shape by moving the selected segment parallel to the original position. The new parallel will intersect the contour in prolongation of previous and next segments of it.

3. Extract a certain area from a pattern only making a single click in that zone:
   Until now the user used to extract an area from a pattern using the “trace” mode, by making click on each point from that area, in order to obtain and define its contour. On the next version a new feature will be available that will facilitate the extraction of the specific area. The user only will make a single click in the area of the pattern that he wants to extract, and it will be created automatically.

4. Import MDL files from Lectra:
   Besides the import of the files IBA and VET from Lectra, it will be possible to import directly the *.mdl file.

Gemini Nest Expert

1. The improvement of nesting algorithm
   On the next version, the nesting algorithm will be improved.

2. Copy/paste at the nested patterns
   It will be possible to copy/paste the nested patterns.

3. View and add markers
   It will be possible to more markers at the same time. Also a feature that will add a marker to another one will be available on the next version.