Quick Guide to VivaNWP Designer

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"VivaNWP Designer" is a so-called "Database Publishing" program that is fully based on the layout program VivaDesigner and extends this program with the possibility for displaying and editing content, as well as the definition of forms, rules and scripts. Put simply, with "Database Publishing" the objects in a layout are filled with content from a database according to certain rules. **The "Database Publishing" technology was significantly developed by VIVA and the term "Database Publishing" is a VIVA trademark registered with the German Patent Office.**

Basics

General

Terms and definitions

With "VivaNWP Designer", graphic, text, picture, table, chart, code and XML objects may be created, filled with content from a data source and steered using rule sets and scripts. The documents created with "VivaNWP Designer" are known as templates. The abbreviation "NWP" stands for "Network Publishing", because the templates may be used not only in the framework of a classical "Database Publishing" application on the desktop but also for a fully automatic production via a network from a Web-to-Print-Shop or any CMS, PIM or ERP system (see VIVA Publishing Server).

Editions

VivaNWP Designer is available in various editions, each with a different function range. You will find an overview of the editions on the VIVA website.

Languages

The user interface of VivaNWP Designer may be switched to over 20 languages (incl. Japanese and Chinese) at any time. Further languages for the user interface with the writing direction from "left to right" may be added by the user himself under VIVA's instructions. In text output, VivaNWP Designer supports all languages and writing directions from "left to right" for western and Asian languages as well as from "right to left" for Arabic and Hebrew.

Style Sheets, Colors, Preferences

All the necessary Style Sheets and Colors are defined in VivaNWP Designer in exactly the same way as in the layout program VivaDesigner. All the typographical settings are defined in the Preferences. Thus a VivaDesigner document may also be used as a basis for a template. The import of style and color definitions from InDesign via the IDML format is possible but is not always recommended.

Data source

Any data source

VivaNWP Designer supports CSV files as a data source and may be linked directly to MySQL tables, databases with an ODBC interface (such as "Microsoft Access") or SQLite. Furthermore, when connecting to databases you can define an SQL query to define the selection of the records. XML imports are also possible on request, but these must be programmed separately.

All character encryptions

VivaNWP Designer supports all known character encryptions for databases. Therefore it doesn't matter if the data are in the Western-1252, UNICODE, Latin1, UTF8, Shift-JIS or in the BIG5 format .

Forms

We define Forms as a collection of objects that together form a closed layout. A distinction is made between CP and IP forms.

CP forms

The abbreviation "CP" stands for "Creative Publishing", which means that the objects are created in a layout program. The graphic designer has all the freedom of a layout program. With CP forms, text and picture objects may be filled with content from a data source. CP forms are also categorized as static forms, as the objects in these forms have a fixed position, height and width, and a CP form always defines a layout for a whole page. CP forms are therefore used frequently for business stationery, cards, posters, etc.

IP forms

The abbreviation "IP" stands for "Intelligent Publishing", which means that the objects are created schematically using dialogs. For objects in IP forms, relations to other objects may also be defined (companion or anchored/embedded objects). IP forms only allow the creation of rectangular objects including lines. As well as text and picture objects, table, chart, barcode and XML objects can also be filled with content from the data source. IP forms are also categorized as dynamic forms, as the objects in these forms have a fixed or variable position, height and width and an IP form may define a whole page or just a part of a page. Thus pages may be constructed from several page components as with the building-block principle. therefore IP forms are frequently used for complex layouts such as price lists, catalogs, etc.

Depending on the edition, CP forms and IP forms may be defined and combined together in one document. CP forms and IP forms are suitable for a FULLY automatic production using the desktop or a server-based application. Unless explicitly otherwise indicated, the following descriptions apply to both CP and IP forms.

Note: the "EP Edition" ("Easy Publishing") of VivaNWP Designer has no forms. With the "EP Edition" a set of rules is defined that may be applied later to a free layout. This edition is only suitable for SEMI-automatic production, as a server-based application is not possible.

Rules & Scripts

With the use of rules and scripts the program can determine automatically which content should be displayed as well as how and where. Since with this technology data containing no layout information may be placed and displayed automatically, we call this technology "Intelligent Design Selection", or IDS for short. Rules and scripts are available in all editions.

Basic working method for rules

Rules are created using the interactive Rule Editor. The program provides all the database fields in a list to which a suitable comparison may be applied, so that in each rule the result defines whether the rule in the current case is "true" or "false". To achieve the required result, simple queries are quite often insufficient. Therefore within a rule, you can make as many queries as you wish, combine them in a group and extend them through logical AND/OR conditions. Rules that have already been created may be used in other rules, which considerably simplifies rule management and in many cases speeds up the creation of new rules. Rules may be assigned commentaries as part of the project documentation, and the integrated Debugger helps with the evaluation and testing of rules.

Rules for content

Content rules define whether any object or part of an object (e.g. the content of a single field) should be displayed.

Rules for Alias (Master) pages

Objects that are repeated on pages (e.g. page number, addresses, company logos, etc.) are mostly created as static objects on Alias (Master) pages. A form may be assigned a fixed Alias page. The assignment of an Alias page to a form may also be made dynamically by using rules depending on the data. The user can define both new rules and also rules relating to existing content rules.

Rules for Style Sheets

every object, every image and every text may be assigned a predefined Style Sheet. As an alternative, Style Sheet Rules may define when an object, an image or a text should be assigned which Style Sheet. Style Sheet Rules are always applied when a single Style Sheet cannot be clearly assigned. If for example a field content should be assigned the color White for positive values and Red for negative values, then the field content cannot be assigned a specific Style Sheet. In this case, the field content is assigned not the name of the Style Sheet but the name of the Style Sheet Rule. Only by using the rule definition can the program define on the fly which Style Sheet is to be used. The user can define both new Style Sheet rules and also rules relating to existing content rules.

Rules for records

Rules for filtering records enable records from the data source that should not be included in the current calculation to be filtered out. This function is particularly useful if only one data source is available, but different parts of the data should be used.

Scripts

Scripts help to achieve maximum flexibility in data manipulation. VivaNWP Designer supports the creation of scripts in PHP and/or JavaScript syntax. Using scripts you can manipulate data, define the height and width of objects dynamically in IP forms and create complex directives. Scripts enable an extensive manipulation of data that is frequently not saved in the form as is necessary for an automatic production.

Using scripts, the data source content may be

- filtered (e.g. from "16.06.2020" to "2020")
- altered/reconstructed (e.g. from "16.06.2020" to "16th June 2020" or "Today")
- combined (e.g. from Field 1 with "16" and Field 2 with "June" to "16th June").
- formatted (e.g. telephone numbers, prices)
- dynamically assigned Style Sheets or text attributes.

If certain operations are carried out very often, you can use "Startscripts" to apply the operation once to the entire data "as is", so that the calculation time for the pages is considerably shortened.

Object Management

Object types

You can create graphic text and image objects in CP forms as well as tables, charts or graphs, bar codes or XML objects in IP forms automatically. Graphic objects in IP forms are rectangles and lines and in CP forms may also be ovals, bézier objects and multiple lines that possess no content. Text and images can be displayed in rectangles in IP forms and also as ovals or bézier objects in CP forms. Tables, charts, bar codes or XML objects can be displayed in rectangles.

Static and dynamic objects

With CP forms, objects are defined as in a layout program with a static position as well as a fixed height and width. With IP forms, objects may have a variable as well as a fixed height/width. In this case the height and width are determined by the content.

Displacing and breaking objects

With IP forms, objects with a higher y coordinate are automatically displaced by objects with a lesser y coordinate and may be displaced to the following page in a similar way to a text break. At the same time it can be defined if an object will be displaced completely or if it may be split. In the case of a split it may also be defined which minimum size/height the first part of the object may have. If this minimum is not achieved, because for example there is not enough space available, the object will be displaced completely (to the next page).

Run around

Of course individual objects may also possess run around for text.

Automatic column balance

If text objects are defined with several columns and a dynamic height, the program calculates the column balance automatically.

Visualising

Rules can be defined for every object that determine if and how the object should be displayed.

Object styles

To define the display of objects with a keystroke, Object (Graphic) Style Sheets can also be defined as well as those for text and images. With Object Style Sheets, all the attributes relating to the object (frame and fill color attributes, Run around, etc.) can be defined.

Text Management

Dynamic text content

As well as the display of field content, text may also be displayed from text files or scripts. For example, the field content "New York" could be displayed directly or reference a text file with the same name in which a complete address is stored. This field content may also be used in any scripts that either output the content directly, change it or extend it.

Static text

Every field content can be output automatically with a static text before it (Prefix) or after it (Postfix), for example: "Today only" + "Field content" + "Euro"). Static text can be assigned separate Style Sheets. Static text can also be placed using text files and scripts.

Text formats

Field content and text files can be saved and interpreted in the formats RTF, VivaTags or VivaXML. Thus in a single field/file a mass of information including typographic assignments can be saved and interpreted by the program.

Multilingual text

VivaNWP Designer supports all languages and writing directions for text output from "left to right" for western and Asian languages as well as from "right to left" for Arabic and Hebrew.

Text objects

A text object my hold the content of as many fields as you like. For CP and IP forms the user can define static dimensions and additionally dynamic height and width for IP forms. With a dynamic height the text object adapts itself automatically to the amount of text. Dynamic widths are used for example if in a table the column widths are determined by the content.

Typography

All text variables may be assigned Character and Paragraph Style Sheets. The Style Sheets used are identical with the options that would also be defined in a manual layout. This includes for example all attributes for font and style, colors, indents, Drop Caps, Tabs, hyphenation and

language, line spacing, character and word spacing as well as definitions for backgrounds, frames or paragraph rules. With the use of rules or scripts, Style Sheets can also be assigned dynamically depending on the content.

Example 1: Assign the font size “30pt” to Field A if the value in Field A or B is higher than 99. Otherwise assign the font size “12pt”.

Example 2:Display the content of Field A with the color “Blue” if the content of Field B is “New York”. Otherwise use the color “Black”.

Fit in text

With static text objects that have a fixed height and width, text can be fitted into the text object automatically so as to avoid overflow. In this process the program not only reduces the font size but also enables the definition of rules that allow the assignment of different typographic attributes in a certain order, reducing to a minimum value. In this way, for example, the character spacing and character width of a text can be reduced one after the other before a reduction in the font size becomes necessary. Only when the minimum values for these rules cannot be applied can a text overflow occur.

the results of this dynamic adaptation may be transferred to other objects, although they may have had enough space to display the text. In this way, in relation to other text passages on the same page, a single typeface can be achieved where all the text looks the same.

Image Management

Professional image management is among the primary tasks of an intelligent software solution for automatic catalog production.

Size of the picture object

with CP forms, images are displayed in objects that have a fixed height and width. With IP forms, objects may also have a variable height and width. With a fixed height and width the user defines the exact measurements of the picture object. With a variable picture object, the minimum and maximum for height and width of the picture object are defined. In this case, the dimensions of the object adapt themselves to the individual size of each image content.

Image scaling and crop

As well as the size of the picture object, the choice of the image scaling and the crop plays an important part. VivaNWP Designer offers both a manual and an automatic scaling which is driven by the program according to the image. The “Crop” option ensures that an image will never be displayed with white space, whatever the page relation to the picture object. Each picture object may, as a further option, receive coordinates for the crop from a database field. In this way it may be ensured that the correct crop will always be displayed, irrelevant of the scaling and alignment.

Image alignment

An image in a picture object can be aligned in many different ways. The alignment can relate to nine pre-defined points (Top/Left, Top/Center, etc.). This points can al´so be selected dynamically using scripts. Furthermore, image alignment can also be directed using rules or based on settings in a database.

Dynamic image content

Names of images may be entered statically for an object, or assigned dynamically through a field content or a script.

Automatic image search

VivaNWP Designer even finds an image if the image name doesn't contain a path and has no file suffix.

In the template a search path may be defined in which the image concerned will be found. Here it is unimportant if local directories or paths are used that are in a network on another operating system. VivaNWP designer can if required search through all sub-folders and is able to define the paths as absolute or relative. Relative path entries are particularly useful if the data sources are directories/folders in the folder hierarchy within the folder where the VivaNWP Designer template is also stored.

Well organised databases are noted for the fact that the name of the image file is saved as media neutral. The database user does know the name if the image file, but often does not know the actual image format (e.g. ".pdf" or ".tiff"). Previous publishing programs therefore would not find an image file called "Logo.pdf" if the database field just contains the word "Logo". In order to take this into account, the user can define search masks for suffixes that are checked in an individual sequence. In this specific situation the program would first look for the image "Logo" but would find no suitable file. Then the program would check all folders again to see if a suitable file with the appropriate suffix exists.

Image styles

As well as Object (Graphic) and Text Style sheets, image Style Sheets may also be defined. Image Style Sheets enable an additional manipulation of image content (e.g. Rotation, Skew, etc.).

Table Management

IP forms provide a table object with a very high performance with which even very complicated applications may be realised.

Table objects

Table cells can not only contain picture, text or chart objects, but also other tables. The number or columns and rows can be defined either manually or through a database field.

Rows and columns

Rows and columns may have a dynamic and a static height/width. With dynamic widths and heights, the program differentiates between automatic and percentage values. With automatic values the column widths and row heights will be adapted to the dimensions of the objects they contain. With percentage entries, the values relate to the width and height of the whole table. The display of a column and row can again be driven by a rule, just as with every cell object. The rules for repeating rows provide enormous simplicity in defining a table. Even for complex tables, mostly just the table header and the first table row are defined, and the table row is repeated according to the rules.

Merging/extending cells

A cell may be extended over several rows and/or columns, with a manual entry, an entry in a database field, or with a rule. Therefore it is no problem for VivaDesigner to create individual table headers dynamically on the fly.

Cell display

All objects may be aligned horizontally and vertically in a cell with individual indents for the left and right as well as the top and bottom borders. The background of every cell can be assigned its own Graphic Style Sheet.

Separators

For displaying the lines between the cells, generally just one Style Sheet is used. In addition every separator line may be assigned its own Style Sheet. Furthermore, the display of individual separator lines may be defined as dependant on a rule.

Visualising

For every object in a cell, rules can be defined that determine if and how the object should be displayed. Furthermore, rules for individual columns and rows can be defined that suppress the output completely when the criteria selected are reached.

Management of code objects

With the code object in IP forms, over 20 different barcodes or QR codes may be created fully automatically.

Management of XML objects

With the code object in IP forms, complete layouts that were saved in the VIVA XML format can be inserted fully automatically. The open VIVA XML format can be created by every VivaDesigner or VivaNWP Designer version or every third party application. With the VIVA XML format Libraries of objects can be defined that are then placed in the layout depending on the data. VIVA XML files can either be part of the data source or reference external files in the data source.

Management of charts and graphs

With the chart object in IP forms, line graphs, bar charts or pie charts may be created fully automatically.

Color definitions

The user can define individual colors for the axis test, the legend, headers, the chart name, the axis lines and the value lines separately for frame and fill. Like all other objects, the chart object also supports all color models including spot colors.

Font/font size

The font and font size can be defined individually for all text, such as axes, headers, legends, etc.

Data source

The chart object supports separate serial letter files or .csv files.