

# **IKEA ULL Manager 2017 Administrator Guide**

**IKEA**

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# 1 Introduction

## 1.1 IKEA and Identification Requirements

IKEA is a global company expanding rapidly; the volumes of goods are increasing and are expected to double within 5 years. Demands of availability, lowering prices and health and safety also require more efficient logistics, more secure and accurate data and more control over the quality in the whole Supply Chain.

Automated data capturing makes it possible to improve the data quality and to move from an error-prone to a simpler and more efficient work process. A global Supply Chain requires focus on transparency, which means that a track & trace possibility of the goods is necessary at all points of the chain. Logistical solutions like Transit, Consolidation points, Cross-docking are dependent on automated identification.

The Unit Load Labeling (ULL) is a consistent approach throughout the Supply Chain. The purpose of the unit load label is to provide clear and concise information about the unit to which it is affixed. It uniquely identifies the logistic unit for administration and logistics purposes and provides article identification for the unit, or its contents, together with additional information concerning quality in machine readable form.

EAN/UCC (GS1) System provides globally unique identification of trade items, logistic units, parties and locations and was therefore chosen. The Unit Load Labels will be printed with the Serial Shipping Container Code (SSCC) in barcode format, which makes it possible to scan the identity in every transaction or physical movement of the handling units.

## 1.2 IKEA ULL Manager 2017 by Euro Plus d.o.o.

IKEA ULL Manager 2017 is a software solution provided by the company Euro Plus d.o.o. and is based on the NiceLabel software. The IKEA ULL Manager 2017 software provides the label-printing application that conforms to the IKEA ULL specifications. IKEA suppliers can use the ULL Manager 2017 to print out the labels requested by IKEA.

The IKEA ULL Manager 2017 contains the following components:

1. NiceLabel software edition 'NiceLabel PowerForms Suite'
2. IKEA ULL Manager 2017 add-on to NiceLabel software containing:
  - Pre-designed label files based on the ULL specifications
  - Pre-designed GUI front-end application (for manual printing)
  - Sample configuration for NiceLabel Automation application (for automatic printing)
3. IKEA ULL Manager 2017 User Guide
4. IKEA ULL Manager 2017 Administration Guide

## Printing Modes

The ULL Manager 2017 runs as the front-end application above standard NiceLabel software. Its purpose is to provide the IKEA supplier with the easy-to-use and expandable label-printing solution based on the IKEA ULL specifications. The ULL Manager 2017 is installed together with NiceLabel.

There are two available modes of label printing:

1. **MANUAL MODE**  
In this case, the user selects the label template and label printer, picks the product from the database and clicks on the Print button to initiate the label printing
2. **AUTOMATIC MODE**  
In this case, the Product ID (Item) is received from the hardware device connected to the serial (COM) port on the computer. Usually a bar code scanner provides the data. Once the Product ID is obtained, the middleware integration module automatically prints out the pre-selected label with the correct data.

**Note:** The provided automatic mode solution provides a framework for the label-print only! The out-of-the-box functionality is not guaranteed with automatic printing. Some additional customization might be required.

## Possibility for Additional Customization (Expert Mode)

The ULL Manager 2017 includes the pre-designed ULL labels conforming to the IKEA ULL specifications. The ULL Manager 2017 is the label-printing application.

**Note:** Custom label design and form design are not part of the proposed ULL Manager 2017 solution.

However, the NiceLabel labeling software that provides the framework for the ULL Manager 2017 also provides the label-design and form-design functionality. So the users can modify existing labels or create new labels if needed. Additionally, all segments of the GUI that you see in ULL Manager 2017 can also be modified.

The Additional Requirement	The Description	The Application
LABEL RE-DESIGN	<p>If there is a need for any additional custom label modification or design, the ULL Manager 2017 also includes the label designer. The application <b>NiceLabel Designer 2017</b> can be used for label design. All IKEA labels files are stored inside ULLManager.nsln file that can be opened with NiceLabel Designer 2017.</p> <p>The expert users familiar with NiceLabel Designer 2017 software can additionally modify labels, if needed.</p> <p><b>Note:</b> Normally the label modification is not necessary, because the labels follow the IKEA ULL design guidelines.</p>	NiceLabel Designer 2017 (included with IKEA ULL Manager 2017)
IKEA ULL MANAGER 2017 GUI OR FUNCTIONALITY RE-DESIGN	<p>The IKEA ULL Manager 2017 GUI is designed with application generator <b>NiceLabel Designer 2017</b>.</p> <p>All IKEA form files (the GUI) are stored inside ULLManager.nsln file that can be opened with NiceLabel Designer 2017.</p> <p>The expert users can modify the layout of the forms as well as alter the functionality of the forms.</p>	NiceLabel Designer 2017 (included with IKEA ULL Manager 2017)

**Note:** NiceLabel software provides a lot of customization possibilities, so IKEA ULL Manager 2017 can also be modified to a great extent. The user making the modifications takes full responsibility for the functionality of IKEA ULL Manager

## 2 Installation

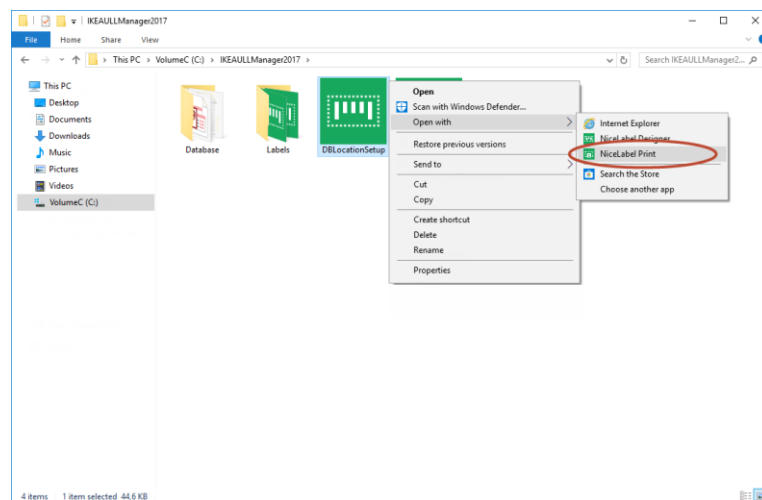
IKEA ULL Manager 2017 installs as the add-on to NiceLabel software. All necessary IKEA ULL files are packed in the file OEM.DAT that is enclosed with the installation of NiceLabel software.

The installation process could not be any simpler. The user starts the installation and follows the installation wizard. The installer will install NiceLabel software and the IKEA ULL Manager 2017 at the same time. The installer also places the shortcut to the IKEA ULL Manager 2017 on the desktop.

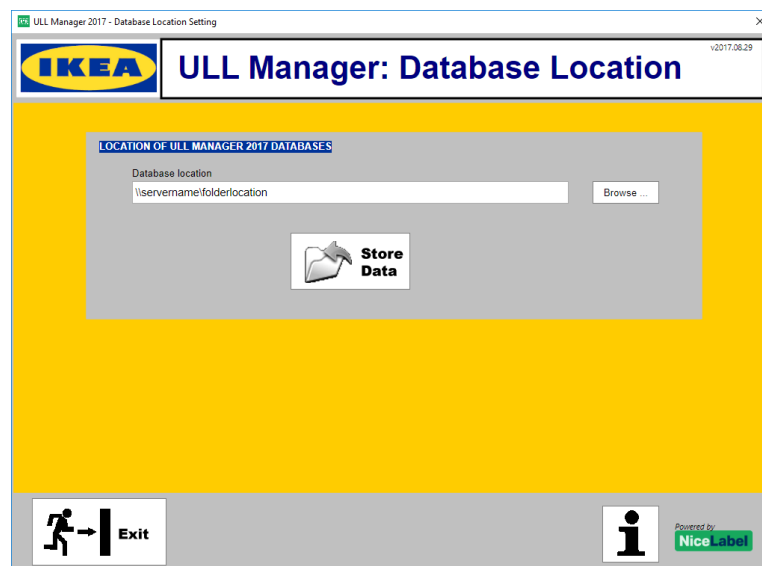
### 2.1 Setting multiuser environment

If there is a requirement for printing from several locations two database files (EcisUll.mdb and PrintLog.mdb) need to be located on some shared network location (i.e. [\\servername\sharedfolder](#)).

In order to enable this option prior running ULLManager from desktop, go to C:\IKEAULLManager2017 folder and run solution named DBLocationSetup.nsln.



The following window will open.



Here Browse... for folder location where you previously copied EcisUll.mdb and PrintLog.mdb files. Source files can be found in "c:\IKEAULLManager2017\Database\" folder right after installation is complete.

When you click on Save Data, IKEA ULL Manager 2017 is ready to use database files from that new location (common for all clients). All clients which will use IKEA ULL Manager 2017 must run this tool in order to point to shared folder for shared database.

## 2.2 Installing Software and Printer Drivers

### Install IKEA ULL Manager 2017 with Installation from the Web

Follow these installation steps:

1. Download the installation from the Web.
2. Unpack downloaded file **IKEAULLManager2017.zip**
3. Double click on the file **NiceLabel2017.exe** to start the installation of NiceLabel / IKEA ULL Manager 2017.
4. Follow on-screen instructions.
5. Double-click the shortcut icon on the desktop to start the IKEA ULL Manager 2017.

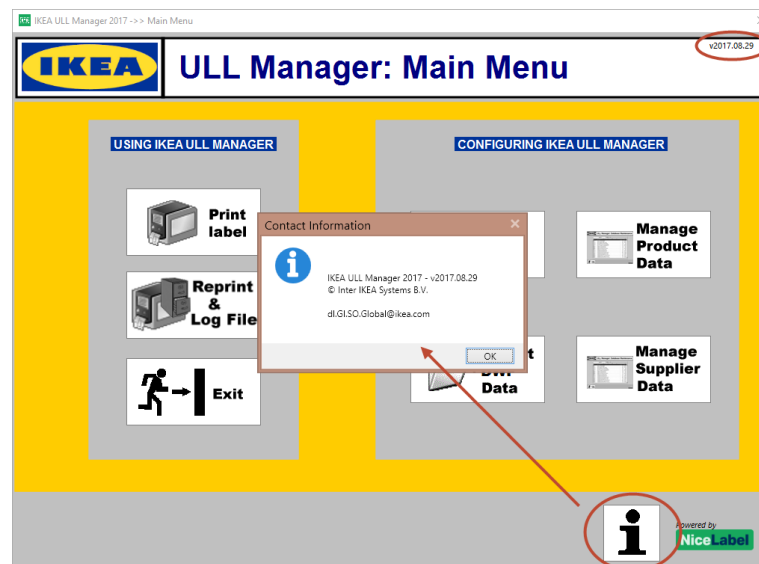
You can also see the detailed installation procedure in the NiceLabel 2017 Installation Guide. Installation of IKEA ULL Manager 2017 follows the same steps.

- You can download the Quick Start from the NiceLabel product Web site.

See the topic **Installing NiceLabel Network Software**.

### Check if correct version is installed

To make sure that correct version is installed check message at Info button or top right corner. Version of ULL manager should be in form v2017.xx.yy



### Install Printer Drivers

Before the user can print labels, the printer driver for the label printer must be installed on the same PC. The printer driver will automatically show in the list of available printers in the IKEA ULL Manager 2017.

- If you use the thermal printers, install NiceLabel Printer Drivers. You can download NiceLabel Printer Drivers online at NiceLabel Web site <https://www.nicelabel.com/downloads/printer-drivers>

- If you use a laser, inkjet or similar printers, the printer drivers are provided with the printer

For more information regarding the NiceLabel PowerForms Suite installation, please see the NiceLabel 2017 Installation Guide.

## 2.3 Activating NiceLabel software

IKEA ULL Manager 2017 is based on the NiceLabel PowerForms Suite edition. To activate IKEA ULL Manager 2017, you must follow the procedure for NiceLabel PowerForms Suite activation. Once NiceLabel is activated, IKEA ULL Manager 2017 will activate as well.

The activation key has been provided with the IKEA ULL Manager 2017. If you not have it, please contact IKEA support.

To activate NiceLabel PowerForms Suite, do the following:

1. Obtain the NiceLabel 2017 Installation Guide.  
NiceLabel 2017 Installation Guide is available on the NiceLabel product Web site.
2. See the topic **License Activation**.

## 2.4 Location of Installed files IKEA ULL Manager 2017 Files

NiceLabel software (the framework for the ULL Manager 2017 solution) can be installed to any location specified during the installation, the default location is:

**C:\Program Files\NiceLabel\NiceLabel 2017**

Make sure you have the administrative permissions on the computer where you are installing the software.

Installation of the ULL Manager 2017 software will:

- Copy NiceLabel files to C:\Program Files\NiceLabel\ folder
- Copy NiceLabel files to C:\Program Data\NiceLabel
- Copy the IKEA ULL Manager 2017 files to the c:\IKEAULLManager2017 folder

The content of the **IKEAULLManager2017** folder is:

Folder	Description
.	<ul style="list-style-type: none"> <li>• ULLManager2017.nsln ... IKEA ULL Manager solution file</li> <li>• ULLTrigger.mixx ... NiceLabel Automation configuration file (for automatic printing only)</li> </ul>
Database	Database files (local DWP product and settings database, Log database)
Graphics	Images (NiceLabel logotype)
Documents	IKEA ULL Manager 2017 documents <ul style="list-style-type: none"> <li>• ULLManager 2017 User Guide</li> <li>• ULLManager 2017 Administration Guide</li> </ul>

## 2.5 System Requirements

NiceLabel IKEA ULL Manager 2017 is based on NiceLabel PowerForms software version 2017.

All requirements for NiceLabel software apply to IKEA ULL Manager 2017 as well. See the following Web site for details:

<http://www.nicelabel.com/Products/Specifications/System-requirements>

# 3 The ULL IKEA Manager Data/Label Structure Explained

## 3.1 Database Structure

There are several databases involved in the IKEA ULL Manager 2017 solution.

### Product Database – Access file EcisULL.mdb

The installation procedure for ULL Manager 2017 provides an empty product database. The user must fill a database before he can use the manual or automatic label print mode. The user can use the provided ULL Manager 2017's GUI to fill the database with values.

There are two forms available to fill in the values:

- A form to manage the product database, manual data entry is possible here
- A form to import the product data from existing DWP CSV file

The database contains five tables:

- Ikea: the table contains the product database
- SSCC: the table stores the last used value of the SSCC counter
- Supplier: the table stores additional info for products. Used only on "ULL 148" label
- Settings: the table stores Ikea ULL Manager preferences and startup values
- SupplierCSVFilePath: the table stores info about location and time of last used DWP file

### Structure for the table Ikea

Position	Field Name	Field Type	Field Length	Description
1.	Item	Char	8	Article number (unique identifier)
2.	Description	Char	255	Article description
3.	ITEM/PAL	Number	Double	Number of items per pallet
4.	WEIGHT	Number	Double	Gross weight of the pallet unit in kgs



Position	Field Name	Field Type	Field Length	Description
5.	Field3	Char	50	Not used, but required for data import.
6.	Field4	Char	50	Not used, but required for data import.
7.	Field5	Char	50	Not used
8.	Field7	Char	50	UL Length
9.	Field8	Char	50	UL Width
10.	Field9	Char	50	Not used, but required for data import.
11.	Field10	Char	50	Not used, but required for data import.
12.	WeightATop	Char	10	Capacity during transport

#### Structure for the table SSCC

Position	Field Name	Field Type	Field Length	Description
1.	ID	AutoNumber	Long Integer	
2.	Index	Text	50	Not used
3.	SSCC	Text	8	Last used value for the SSCC counter

The table SSCC always has just one record. The 'ID' value is 1 and is used to store the last used SSCC counter into the 'SSCC' field.

#### Structure for the table Supplier

The table contains the supplier specific information (supplier data). The installation procedure for ULL Manager 2017 provides an empty supplier database. The user can use the provided ULL Manager 2017's GUI to fill the database with values.

Position	Field Name	Field Type	Field Length	Description
1.	Item	Text	8	Lookup field by which the label searches the database, same as in the Ikea table
2.	Supplier1	Text	10	Code 128 object

Position	Field Name	Field Type	Field Length	Description
3.	Supplier2	Text	10	Text object
4.	Supplier3	Text	10	Text object

### Structure for the table Settings

The table contains settings for customer/application and also settings used for automated printing. It holds only on line with ID value 1.

Position	Field Name	Field Type	Field Length	Description
1.	Set_Printer	Text	255	Printer set for Automated printing
2.	Set_Etiketa	Text	255	Label template set for Automated printing
3.	Set_Supplier	Text	255	Supplier number
4.	SSCCSupplierPart	Text	255	Starting/Current value of SSCC (used fo SSCC barcode)
5.	Print Quantity	Text	255	Number of identical copies of labels when printing
6.	LabelName	Text	255	Last selected label template when printing.

### DWP CSV Data File – Text File \*.CSV

IKEA ULL Manager 2017 provides a feature to import the product data from the external DWP CSV files.

External file:

- must be ASCII format
- first column has no text qualifier
- all other columns (data) have double double quote (""") as text qualifier
- columns from second and further are delimited with comma (,)
- first and last characters is double quote (")

Sample line

`"12345678,""column1""",""column2""",""column3"" ....,""last column"""`

The structure of the external file that will be imported to the ULL Manager 2017 database must have the following fields defined:

Position	NICELABEL® Field	Field Type	Field Length	Significance	Obliga tory
1.	Item	Char	15	Article number (unique identifier)	<b>X</b>
2.	Description	Char	50	Article description	<b>X</b>
3.	UL Qty	Num		Quantity	
4.	UL Gross Length	Num	4	Outer length of the pallet in mm	
5.	UL Gross Width	Num	4	Outer width of the pallet in mm	
6.	UL Gross Height	Num	4		
7.	UL Gross Weight	Num	4		
8.	Capacity during transport	Num	4	Weight a top	

All obligatory fields from the external file will be:

- Created in the new record if an article with this number does not exist yet
- Updated in the existing record if an article with this number already exists

## 3.2 Label Structure

The design and the contents of the label are determined from the IKEA documents:

- ULLManual20060726.pdf
- UnitLoadLabelWM.pdf

There are four different label layouts defined:

1. ULL 148: includes optional supplier data, IKEA data, bar codes, dimension 148 mm x 260 mm
2. ULL 105: includes IKEA data, bar codes, dimension 105 mm x 260 mm
3. Fault 148: no data, dimension 148 mm x 210 mm (printed only when automated printn is used)
4. Fault 105: no data, dimension 105 mm x 210 mm (printed only when automated printn is used)

### Label: ULL 148

NiceLabel Designer 2017 program was used to design the label. The design of the label includes various objects such as fixed text objects, variable text objects, data-manipulation functions, etc.

All variable data printed on the label is:

1. Defined by the user in the 'Label Printing' form in the IKEA ULL Manager 2017 (when using the manual printing mode)
2. Defined by the value from bar code scanner (when using the automatic printing mode)
  - In both cases the label makes a connection to the external data source ECISULL.MDB

Label template is divided in 4 areas:

1. Pallet Top data
2. Optional supplier area
3. IKEA area
  - item

- weight
  - quantity
  - supplier
  - data stamp
  - IKEA ULL version
4. Bar code area
- upper horizontal barcode: item, date stamp, supplier, quantity
  - lower horizontal barcode: SSCC prefix, unique SSCC counter
  - vertical barcode: SSCC prefix, unique SSCC counter



Figure 1: The layout of the ULL 148 label template

## Label: ULL 105

NiceLabel Designer 2017 program was used to design the label. Design of the label includes various objects, like fixed text objects, variable text objects, data-manipulation functions, etc.

All variable data printed on the label is:

- Defined by the user in the 'Label Printing' form in the ULL Manager 2017 (when using the manual printing mode)
- Defined by the value from the bar code scanner (when using the automatic printing mode)
  - In both cases, the label makes a connection to the external data sources ECISULL.MDB

The label is divided in 3 areas:

1. Pallet Top data
2. IKEA area
  - item
  - weight
  - quantity
  - supplier
  - data stamp
  - IKEA ULL version
3. Bar code area
  - upper horizontal barcode: date stamp
  - middle horizontal barcode: item, supplier, quantity
  - lower horizontal barcode: SSCC prefix, unique SSCC counter
  - vertical barcode: SSCC prefix, unique SSCC counter

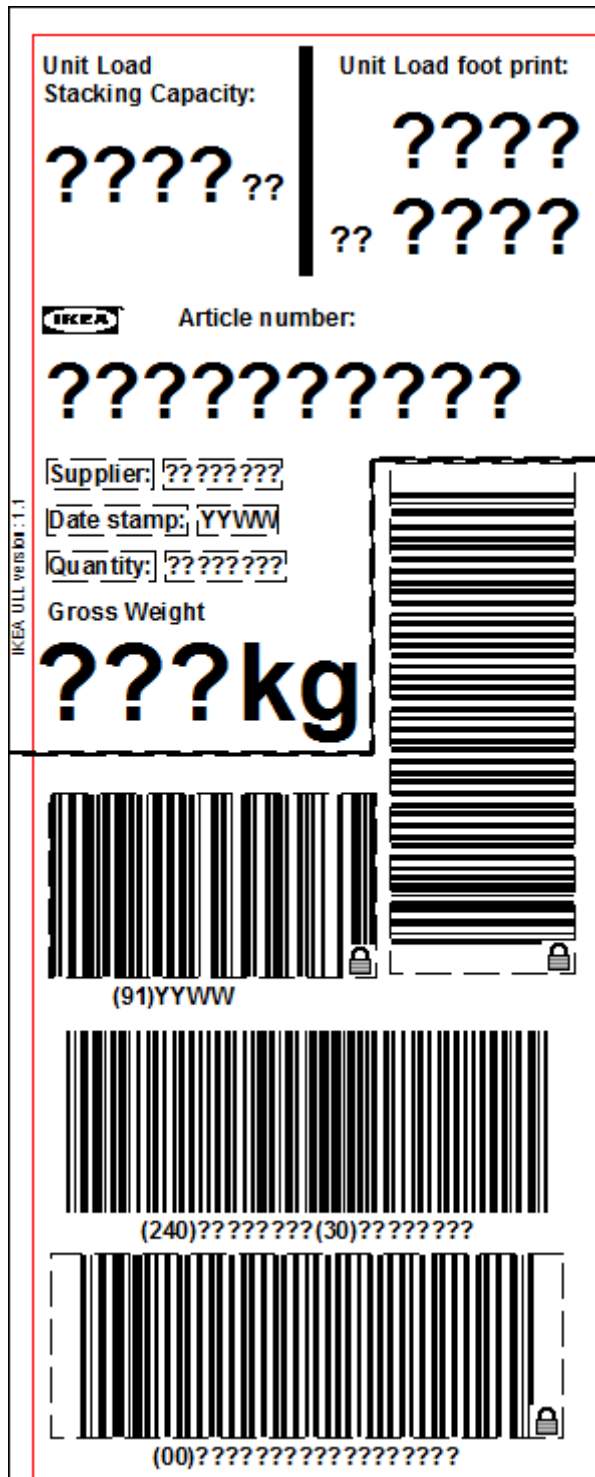


Figure 2: The layout of the ULL 105 label template

### Label: Fault 148

NiceLabel Designer 2017 program was used to design label. Design of the label includes fixed text objects only. When barcode reader value (Automatic mode) is not present in database and ULL 148 layout was selected, Fault 148 label will print.



Figure 3: The layout of the FAULT 148 label template

### Label: Fault 105

NiceLabel Designer 2017 was used to design label. Design of the label includes fixed text objects only. When barcode reader value (Automatic mode) is not present in database and ULL 105 layout was selected, Fault 105 label will print.



Figure 4: The layout of the FAULT 105 label template

## 3.3 Form Structure

### Main Form

The main menu provides links to all IKEA ULL Manager 2017 submenus:

- Printing labels (Print Label)
- Configuring application preferences (Setup)
- Managing product data
- Manage supplier data
- Importing product data from DWP CSV (Import DWP Data)
- Reprint and Log File



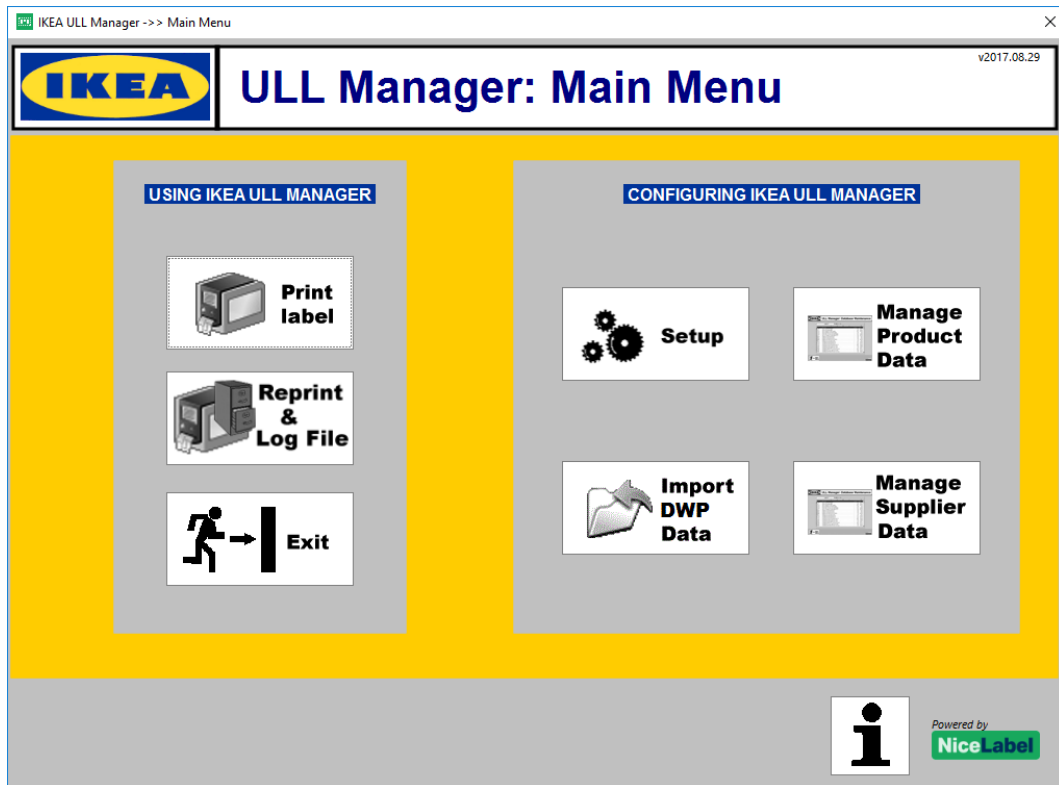


Figure 5: IKEA ULL Manager 2017 Main Menu

## Configuration Form (Setup)

The IKEA ULL labels encode the information about the Supplier ID code and SSCC number. Before you can use IKEA ULL Manager 2017, you must configure it by setting the correct values for your unique Supplier ID code and SSCC number.

The right side of the form will show the currently defined preferences. This is useful if you want to verify the current settings, if you do not remember what you have entered the first time

## Manual Data Entry Form (Manage Product Data)

The form 'Database Maintenance' is provided for the user to manage the database of products. You can add/delete/modify the records directly in the table object in the form. There is a navigation toolbar available for:

- Quick navigation through the database
- Search for the records
- Adding/Removing/Modifying records

IKEA ULL Manager ->> Database Maintenance

**IKEA** **ULL Manager: Database Maintenance** v2017.08.29

Item;Descri... Find

Item	Description	Item/Pal	Weight	UL Length	UL Width	WeightATop
00017133	VASEN vase 20 clear glass	216	1200	800	880	145
00214591	BUREN oven/serv dish w lid 42x26 clear glass	64	1200	800	1020	293
00256270	CYLINDER vase s2 assorted patterns 1310	180	1125	720	985	242
00276305	VASEN N vase 20 clear glass AP CN	216	1200	800	880	145
00297850	UPPHETTA coffee/tea maker 0.4 l glass/stnls	300	1120	780	995	106
10209990	GÄLL cup/saucer 20 cl clear glass AP JP	720	1200	800	900	173
10277837	BENUNGE jug 0.6 l transparent NA	360	1200	800	920	109
20157882	MIXTUR oven/serv dish s4 clear glass AP JP	360	1200	800	970	460
20244276	CYLINDER vase s2 red AP CN	448	1200	800	940	274
20297849	UPPHETTA coffee/tea maker 0.4 l glass/stnls AP...	300	1120	780	995	106
20327257	CYLINDER vase/bowl s3 multicolour AP CN	24	680	470	940	71
30163217	RIKLIG teapot 1.5 l glass AP JP	90	800	600	850	53
30231278	CYLINDER vase s2 clear glass AP CN	448	1200	800	940	284
30279722	IKEA 365+ jug with lid 1.5l clear glass/cork AP JP	60	800	600	760	44
40058763	MIXTUR oven/serv dish 15x15 clear glass	960	1015	665	880	457
40244275	CYLINDER vase s2 red	448	1200	800	940	274
40288486	BENUNGE jug 0.6 l transparent AP JP	360	1200	800	920	109
40297848	RIKLIG teapot 0.6 l glass	384	1200	800	950	147
40327256	CYLINDER vase/bowl s3 multicolour	24	680	470	940	71


 **Main Menu**

Figure 6: Screenshot of database maintenance form

The user has to enter the following data for each product:

- Item
- Description
- Item/Pal
- Weight
- WeightATop

The table on this form is linked to the MS Access product database **EcisULL.mdb:Ikea**.

## Product Data Import from DWP CSV File Form

Figure 7: Screenshot of the DWP data import

The user has to browse for the external DWP CSV file. Only CSV-formatted files can be used for import. There is an additional parameter while importing data:

- **Empty the database before import**  
Before the DWP data is imported, the table with current products is flushed. All records and their values are removed.

When ready, click on the button 'Import DWP file' to import data into the database.

**Note:** DWP CSV file path is saved to the text file SupplierCSVFilePath field in Access database to be remembered for the next time the user wants to import DWP data.

## Label Printing Form

When using manual printing mode, the user initiates the label printing with the click on the 'Print label' button.

**Note:** Before printing can take place, you must configure the IKEA ULL Manager 2017 – use Setup button.

The Label Printing Form is the main form in the IKEA ULL Manager 2017 solution. The form provides the user with the easy-to-use label printing application. The user will spend the majority of his time with the ULL Manager 2017 using the Label Printing form.

**ULL Manager: Label Printing** v2017.08.29

**Print label** **Printer Setup** **Main Menu**

**LABEL TEMPLATE**  
 ULL 105  
 ULL 148

**PRINTER**  
 Microsoft XPS Document Writer

**QUANTITY OF DIFFERENT SSCC LABELS**  
 1

**DATE** 29.8.2017

Item	Description	Item/Pal	Weight
00017133	VASEN vase 20 clear glass	216	1200
00214591	BUREN oven/serv dish w lid 42x26 clear glass	64	1200
00256270	CYLINDER vase s2 assorted patterns 1310	180	1125
00276305	VASEN N vase 20 clear glass AP CN	216	1200
00297850	UPPHETTA coffee/tea maker 0.4 l glass/stnls	300	1120
10209990	GÄLL cup/saucer 20 cl clear glass AP JP	720	1200
10277837	BENUNGE jug 0,6 l transparent NA	360	1200
20157882	MIXTUR oven/serv dish s4 clear glass AP JP	360	1200
20244276	CYLINDER vase s2 red AP CN	448	1200
20297849	UPPHETTA coffee/tea maker 0.4 l glass/stnls AP JP	300	1120
20327257	CYLINDER vase/bowl s3 multicolour AP CN	24	680
30163217	RIKLIG teapot 1.5 l glass AP JP	90	800
30224378	CYLINDER vase s2 clear glass AP CN	448	1200

**Label Preview:**  
 Unit Load Stacking Capacity: 71 kg  
 Unit Load foot print: 470 mm x 940 mm  
 Article number: 203.272.57  
 Supplier: 122  
 Date stamp: 1755  
 Quantity: 24  
 Gross Weight: 680 kg  
 SSCC Barcode: (001)20327257123(30)24  
 SSCC Barcode: (001)2545678900000012

Figure 8: Screenshot of main label printing form

## Workflow

The manual label workflow printing is:

1. Select the label template to print. The selection can be made in the list box between two labels: 'ULL 105' and 'ULL 148'.
2. Select the label printer where the labels will be printed. All printer drivers installed on the computer will display in a drop down list.
3. Select the date to use on the labels. A suggested default value is current date. The user makes selection in the DD.MM.YYYY format, the format on the label is YYWW.
4. Define the number of unique SSCC labels that you want to print. Each printed SSCC label automatically increments the counter in the SSCC bar code.
5. Select the product in the database. Values for the selected product will be used on the label.

**Note:** The database grid provides read-only access to the database. The user cannot modify the values in the database here. A separate 'Database Maintenance' form is provided for this purpose.

6. The live label preview updates each time you select a new product in the database. You can verify that the correct label template and product were selected from the database to make sure a correct label and data will print out.
7. Click on the 'Print label' button to print out the label.

**Note:** The number of identical copies for the labels is set in the configuration form.

8. The user can exit the printing form in one of the two ways:
  - Click the 'Main Menu' button to open the main menu.
  - Click the 'Exit' button to close the IKEA ULL Manager 2017 application.

## Reprinting Labels and Viewing the Log File

IKEA ULL Manager 2017 logs information about labels printed. The data like which label was printed to what printer at what time with what values is stored in the log file (ReprintLog.mdb Access database).

The log database makes it quite simple for the user to look at the information about printed labels and even more, to reprint the same set of labels again with exactly the same data as the first time.

To reprint the labels, do the following:

1. Double-click the 'IKEA ULL Manager 2017' shortcut on the desktop.
2. In the main menu click on the **Reprint & Log File** button.  
The 'Reprint' window will open.
3. Select the product for which you would like to reprint the label. Also check "Print Date" to distinguish between different print jobs for the same product.
4. In table below select which label from that print job you would like to reprint.
5. Select "Reprint quantity"
6. Select printer to which you would like to reprint the label
7. Click the **Print** button.

**Print Log**

Product Name	Product Number	Label	Printer	Print Date	Quantity
BENUNGE jug 0,6 l transparent AP JP	40288488	ULL 105	\\vidor\ZEBRA TLP 3842	25.08.2017 12:23:12.657050	1
FÄRTROLIG food cntnr 17x23x9 clear glass	50233790	ULL 148	\\vidor\ZEBRA TLP 3842	25.08.2017 12:23:21.928141	1

**Label Details**

Product Number	Item/Pal	Weight	Size 1	Size 2	WeightAtop	Supplier 1	Supplier 2	Supplier 3	SSCC code 1	SSCC code 2
40288488	360	1200	800	920	109				222456	12312312313

Reprinting labels and viewing the log file

## 3.4 Automatic Label Printing

In the automatic label printing mode the labels do not print based on the user's activity in the software, but based on the data received from the hardware device. The user needs to define the initial configuration

parameters in the IKEA ULL Manager 2017 software and that is all required user-interaction with the software.

The bar code scanner connected to the serial port provides a data that triggers label printing. The scanner must return the Product ID (Item) of the product. When the data is received the requested label will print out with the correct data for the product. The product values are returned from the database with a database-lookup (query) based on the Item number.

NiceLabel Automation takes care of the automatic label printing. NiceLabel Automation is available with the NiceLabel PowerForms Suite installation and is part of the IKEA ULL Manager 2017 solution. The sample NiceLabel Automation configuration is provided with the IKEA ULL Manager 2017. You can use it as foundation upon which you build your custom automatic printing solution. NiceLabel Automation is event-based application that starts pre-define actions as soon as the trigger event is detected. For IKEA ULL Manager 2017 the monitored trigger event is data received from the bar code scanner connected to the serial port (COM).

**Note:** The sample configuration is just that, a sample to help the user understand how to properly set up NiceLabel Automation application. The sample configuration cannot be used in your particular environment out-of-the-box. User configuration of NiceLabel Automation is required.

## Configuration

### Hardware Configuration

The data from the bar code scanner will trigger label printing. The sample NiceLabel Automation configuration file assumes the bar code scanner has the following communication set up:

Parameter	Value
Communication port	COM1
Communication speed	57600 bps
Data bits	8
Parity	none
Stop bits	2
Flow control	none

If the scanner uses different communication parameters, the user has to change the parameters in NiceLabel Automation configuration as well. Working with NiceLabel Automation is outside the scope of this document. For more information about how to use the NiceLabel Automation, refer to the NiceLabel Automation user guide.

## Workflow

The workflow with automatic label printing in NiceLabel Automation:

1. The user scans the bar code with the scanner.
2. The data is accepted by the NiceLabel Automation application.
3. The first 8 digits from the data are stored.
4. The configuration file is read. NiceLabel Automation acquires information about:
  - Which label to print
  - Which printer to use

- How many identical labels to print
  - What is the supplier code
  - What is the supplier SSCC prefix
5. This information as well as the actual 8-digit value from the scanner is sent to NiceLabel print engine.
  6. The print engine accesses the product database and queries the database for the product information (using the 8-digit value as the lookup key).
  7. The print engine also reads the last-used SSCC number.
  8. The label is printed out with the values from the database.
  9. The SSCC number is increased by one and stored in the database.
  10. If the incoming data value equals 99999999, the 'fault' label is printed. Either Fault 148 or Fault 105 labels print, it depends on the label template selected in the configuration step.

## 4 Administer IKEA ULL Manager 2017

### 4.1 The NiceLabel Applications

IKEA ULL Manager 2017 solution has been developed with the NiceLabel PowerForms Suite software. IKEA ULL Manager 2017 is an add-on to NiceLabel PowerForms Suite.

Before NiceLabel software can be used, you have to activate it with the provided Software Key. Please refer to the IKEA ULL Manager 2017 Installation and User Guide for installation and activation details.

Two NiceLabel applications are involved in the IKEA ULL Manager 2017 and provide a framework for the reliable and easy-to-use printing solution (both are included with the IKEA ULL Manager 2017).

NiceLabel Application	Purpose
NiceLabel Designer 2017	NiceLabel Designer 2017 is a label and form designer. IKEA ULL Manager solution (solution is combination of label templates and forms) was designed with this application.
NiceLabel Automation	NiceLabel Automation is a middleware integration module. In case of IKEA ULL Manager 2017 solution NiceLabel Automation monitors the serial port (COM) for the incoming data. When the data is received the built-in logic determines which label to print out with the values from the product database. NiceLabel Automation configuration is stored and read from .MISX file.

### 4.2 Label Template Administration (Advanced Users)

This section provides details how to design and modify IKEA ULL label template. Here basic information for label and form design will allow you to make small adjustments.

If you want to know more about label and form design (with NiceLabel Designer 2017) and how to integrate label printing to existing systems (with NiceLabel Automation) see more documentation for NiceLabel products:

- NiceLabel Designer 2017 Quick Start Guide
- NiceLabel Designer 2017 User Guides

All NiceLabel documents are available for download from NiceLabel product Web site: [www.nicelabel.com](http://www.nicelabel.com).

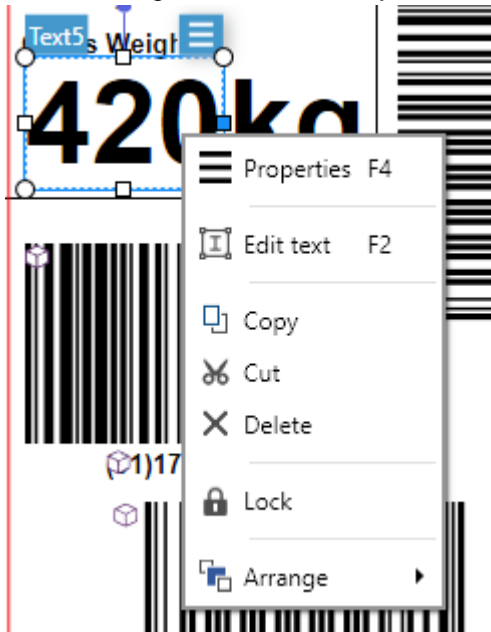
## Open the label template for design

To design the text object do the following:

1. Run **NiceLabel Designer 2017** to start up the label designer.
2. Open **ULLManager.nsln** and in Solution Explorer locate ULL148 or ULL105.
3. Double click on the one you would like to change

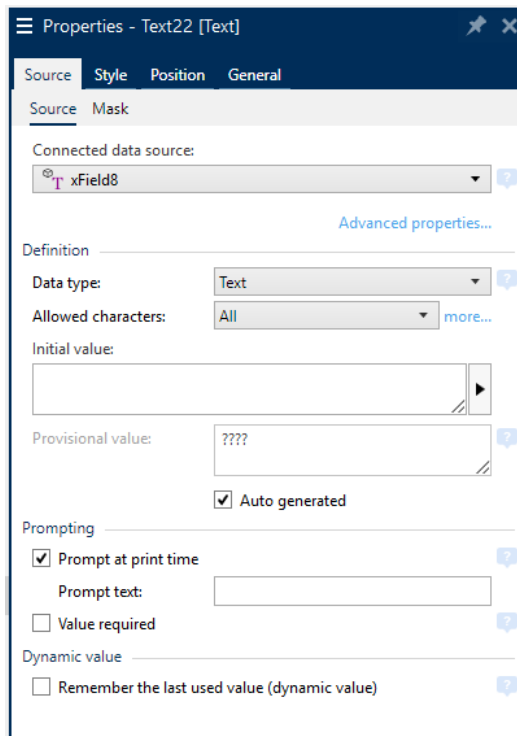
### Text object design

1. Select the text object you want to modify.
2. Right-click the text object to display the context menu.



3. To modify the object properties, select the option **Properties** from the context menu. The dialog box with all available object's properties will appear on right side of the program.





**Note:** You can also double-click the object to open its properties.

4. Here you can then change properties of that object.

### Barcode object design

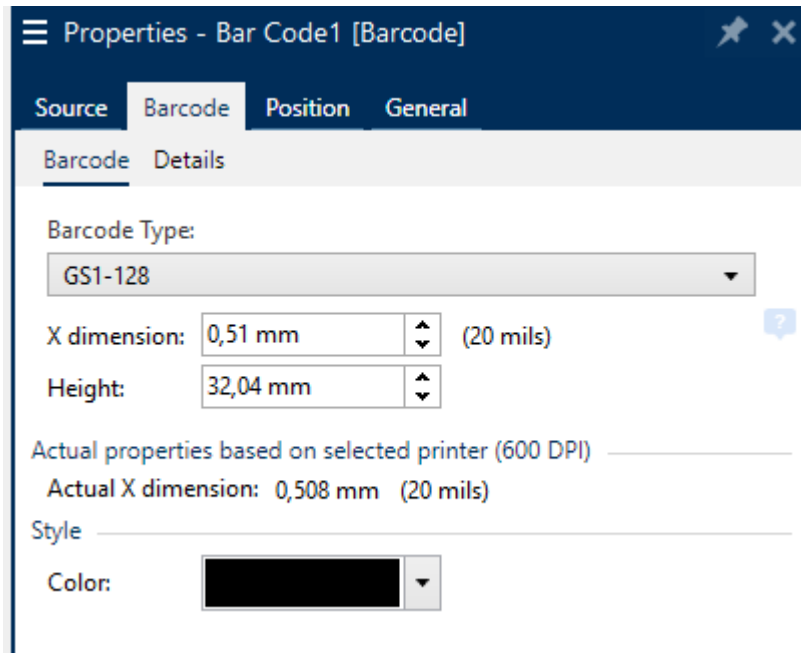
To design the barcode object do the following:

1. Select the bar code object.
2. Right-click the text object to display the context menu.



3. To change properties of barcode and variable which populates its value click Properties and similar dialog will appear on right side of the screen.

4. To modify the bar code type, select the option **BarCode** from the context menu.



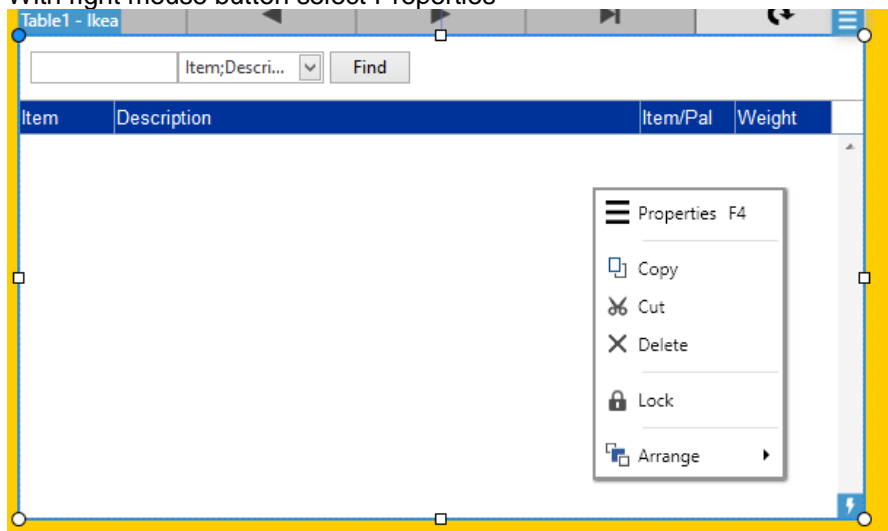
## 4.3 Form Layout Design

This section provides details how to design the form layouts with the NiceLabel Designer 2017.

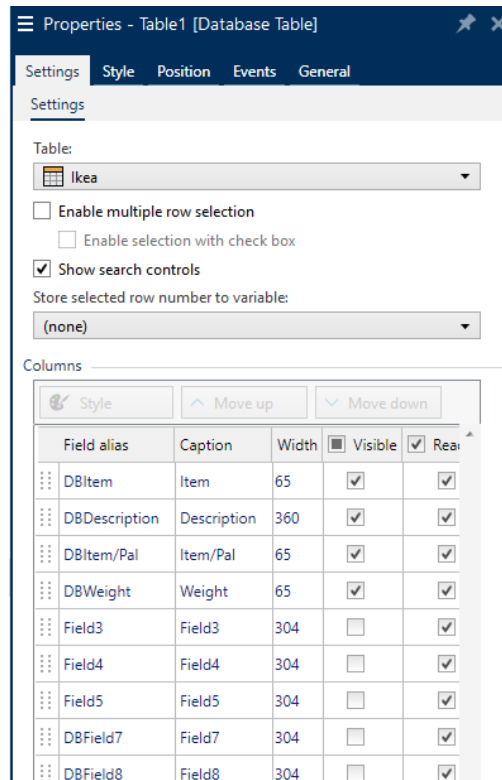
### Table Object Design

To design the table object, do the following:

1. Open NiceLabel Designer 2017
2. Open the ULLManager.nsln file
3. Select requested form from Solution Explorer and double click on it to open
4. With right mouse button select Properties



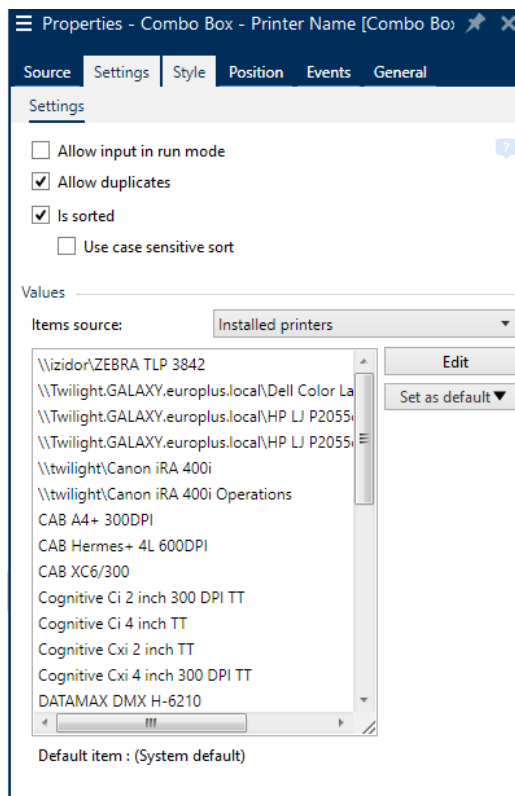
5. Properties dialog will open on right side where you can define/change several properties for table object.



## Combo Box Object Design

To design the combo box object, do the following:

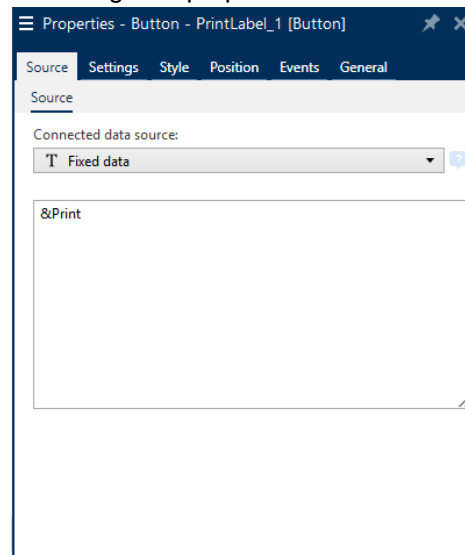
1. Open NiceLabel Designer 2017
2. Open the ULLManager.nsln file
3. Select requested form from Solution Explorer and double click on it to open
4. Select combo box and right-click on it to get its properties



## Button Object Design

To design the button object, do the following:

1. Open NiceLabel Designer 2017
2. Open the ULLManager.nsln file
3. Select requested form from Solution Explorer and double click on it to open
4. Select button and right-click on it to get its properties



5. In "Events" tab you can see which actions are executed when this button is pressed.