**Omnicell Blueprinting Tool Guide  
Omnicell Blueprinting Tool**

**09.30.2022 – Sr. Architect – Maintained by Doug Vidakovich**

**Contents**

[Overview 3](#_Toc124228090)

[Noteworthy: 3](#_Toc124228091)

[Tool Installation 3](#_Toc124228092)

[Tool Folder layout and description 3](#_Toc124228093)

[Application GUI: 4](#_Toc124228094)

[Data File: 7](#_Toc124228095)

[Stencil Names contained within “OC\_BlueprintingStencils.vssx” 12](#_Toc124228096)

[Supported colors and connector line weights 13](#_Toc124228097)

[Dropdown list for some columns (Excel data file template (Tables tab)) 14](#_Toc124228098)

[Sample Excel data file breakdown 15](#_Toc124228099)

[User feedback 18](#_Toc124228100)

|  |  |  |
| --- | --- | --- |
| Date | Description | Revision |
| 9/30/2022 | Initial draft of the User Guide | 1.0.0.1 |
| 10/05/2022 | Added a few more stencils to the standard Visio template  Added “Shape Type” : Page Size | 1.0.2.1 |
| 11/20/2022 | Added twoFromLineWeight and ToLineWeight. Also added entries in the excel data file tables sheet.  Added Colors references  Added Stencils references | 1.0.2.2 |
| 12/12/2022 | Excel column “Visio Page” The user has the option to enter just a number or alphanumeric text now to represent the Visio page tab name.  Excel Column Shape Type has the option “Disabled” meaning this row is ignored like a comment  This will work if building an Excel file from a Visio Diagram. However, if the shapes are not part of the default stencil, they will need to be fixed up manually. Also, they will need to make sure the stencil that was used is referenced in the configuration section of the Excel data file | V1.0.2.3 |
| 01/10/2023 | Changed the application GUI to support Tab Control  Added OIS setup data processing | 1.0.2.3A |

# Overview

This guide provides comprehensive help and documentation for the latest version of the Omnicell Blueprinting Tool (v1.0.2.3). Omnicell Blueprinting Tool is an aid where automation of Visio Diagrams based on customer-specific configurations. Using an excel file the designer has full control of placing stencils on the diagram as well as how shapes are connected.

## Noteworthy:

* Currently no installer has been created for this tool. However, a simple zip file can be used for the installation
* This tool requires Visio and Excel to be installed on the computer running this tool
* An excel file will be used populated the Visio diagram provided by the users. This data file will contain all the information for placing stencils and connections on the diagram
* Supports multiple Visio pages
* Supports multiple Visio stencil files
* Supports Visio template file. (Template files can contain stencils). Additional stencils can also be attached to the template file

## Tool Installation

* At this time installation of this tool will be performed by extracting a zip file
  + Extracting the zip file will be perform the following
    - Root folder will be created “Omnicell\_Blueprinting\_Tool”
      * Will contain the application program
      * Application JSON file
      * Folder: “**VisioFiles**” containing example Visio Diagrams created from the Excel template files
        + Also, when you save a Visio diagram it will be placed here unless otherwise stated
    - Additional sub-folder “Data” will be created under the root folder
    - Three additional sub-folders will be created under the “Data” folder
      * “ScriptData”
      * “Stencils”
      * “Templates”
    - Make a copy of the OC\_BlueprintingDataFile\_Template.xlsx” file. Use the new copy for your project data file

## Tool Folder layout and description

* Brief description of each of the folders and contents
  + - Root folder “Omnicell\_Blueprinting\_Tool” - Applications exe will be placed
    - Under the root folder the sub-folder “Data”
      * Three sub-folders have been created under the “Data” folder
        + “**ScriptData**” – Folder for Excel data files

A sample data file “OC\_BlueprintingDataFile\_Template.xlsx”

Place your project excel data file in this folder

* + - * + “**Stencils**” – Folder for Visio Stencil files

Existing stencil file “OC\_BlueprintingStencils.vssx”

Place any custom project stencils in this folder

* + - * + “**Templates**” – Folder for Visio Template files

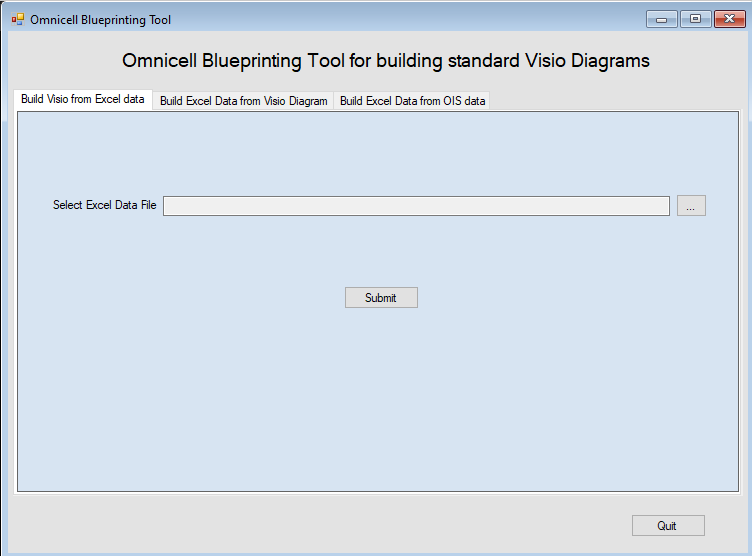
Existing template file “OC\_BlueprintingTemplate.vstx”

Place any additional Visio templates created in this folder

Template files should contain stencils as well, this help eliminate the need to call out stencils in the excel data file

## Application GUI:

The GUI has changed from the use of Radio buttons for selecting the diagram options to a Tab Control

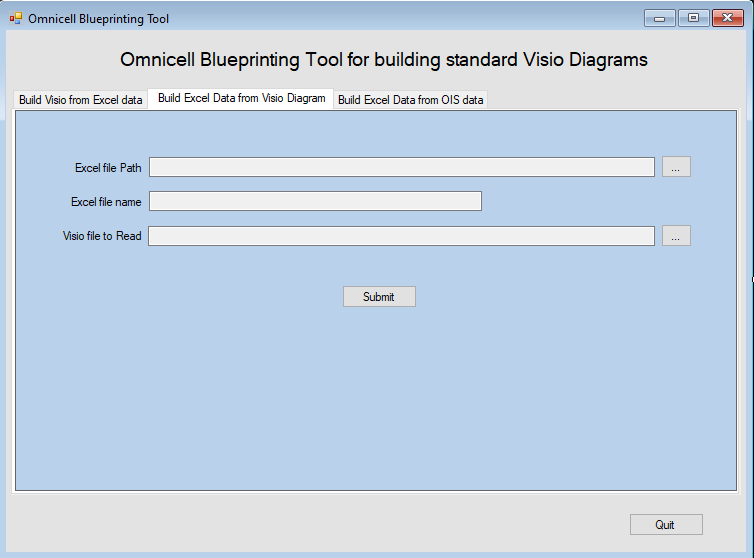


The first Tab is used for building a Visio diagram from an Excel Data file. The user will need to select the Excel data file to use than select the Submit button

The second Tab is used for creating an Excel Data file from a Visio Diagram. The user needs to select the Visio file to process. The User can select a different output folder where the Excel file will be created in or use the default.

Once all the fields have been populated the User can click on the Submit button to start the process.

Note this process can take some time depending on the size of the Visio diagram so be patient.



After the Excel data file has been created the user still needs to do work. The Stencil Image names will not match the Stencil and will need to be fixed. The Unique Key will also need to be fixed up as well as any connecting lines. Fine tuning of the PosX and PosY as well as stencil sizes may be needed.

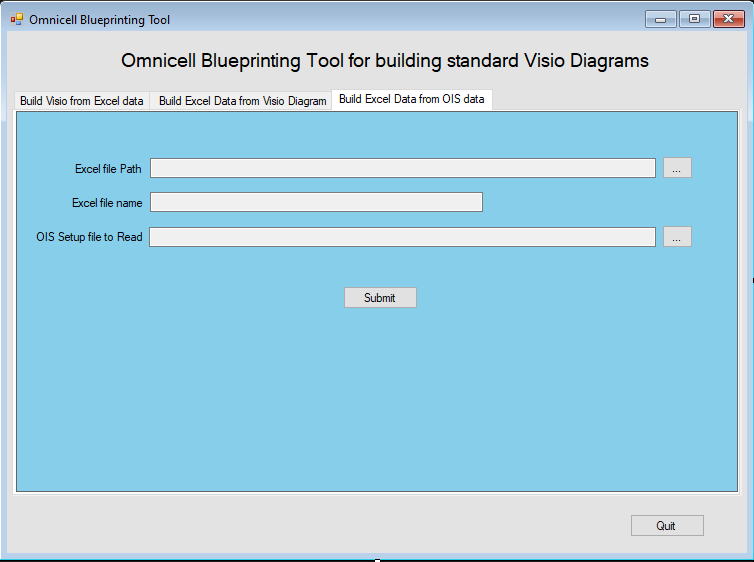
You will also need to create a custom project stencil to add shapes if new shapes are needed that don’t reside in the application default stencil file.

The 3rd tab is used for creating an Excel data file based on the OIS setup csv output file

The user needs to select the OIS setup CSV to process. The User can select a different output folder where the Excel file will be created in or use the default.

Once all the fields have been populated the User can click on the Submit button to start the process.

Note this process can take some time depending on the size of the Visio diagram so be patient.



After the Excel data file has been created, the user will need to perform fine tuning on the Excel data file to group shapes and repositing if needed. Shape Image values should be correct as well as the Unique Key values. Connections will need to be fixed up. The need for a custom stencil may be needed for project logo’s

## Data File:

* This application will use an excel file formatted in a specific way allowing the designer the ability to specify stencil shapes, labels, fill colors on the Visio Diagram. However, there are a few specific rules which must be followed to get shapes to be drawn.
* Fastest way to create a diagram would be to use the provided Visio template file that already contains a stencil
* Make a copy of the provided excel data file and start to add your custom components to that file.
* Most of the work will be setting the PosX and PosY values. If you don’t set these values for each stencil image, they will be placed on top of each other.
  + Description of the Excel data file
    - There are four sheets within this data file.
      1. **VisioData** sheet – This is the brain where the user will enter data that will be displayed on the Visio Diagram
      2. **SystemInfo** sheet – Add System information collected from the customers site(s). Not used by the application
      3. **Interfaces** sheet – Add interface information collected from the customers site(s). Not used by the application
      4. **Tables** sheet – Do not make any modifications to this sheet. This sheet contains tables that are used on the “VisioData” sheet
    - **VisioData** sheet (this is where all the information to create a Visio Diagram will be located)
      1. First row is the header. Note: Not all fields in each row need to be populated.
         * Required columns are high-lighted “Red”
      2. **Comments** – Ignore this row from being processed. Can use two different methods
         * Use a semi-colon as the first character in the “**Visio Page**” column of that row
         * Enter the value “Disabled” in the “**Shape Type**” column of that row
      3. If using the standard provided template file “Data\Templates\OC\_BlueprintingTemplate.vstx”
         * This template already contains the default stencil file, so you don’t need to include it.
         * For standard default stencils shapes the application Template file can be used
         * Can also add additional custom stencils if needed
         * If no shapes from the application default stencils are used no need to use the template and just enter the custom stencils for the diagram
      4. VisioData sheet fields description

| **Data file header column** | **Required** | **Description** |
| --- | --- | --- |
| **Visio Page** | **R** | **Visio Page Identifier**  Anytime the “Shape Type” value is “Shape” the user must be enter a valid value.  numeric value 1 or 2 ….  or alphanumeric value as text  I.E. 1 will show a page value of “Page-1  I.E. 2 will show a page value of “Page-2”  I.E. “Data Flow A” will show a page value of “Data Flow A”  This allows for the user to create multiple pages using the name they want to represent on the Visio Diagram.  Please try not to mix “Visio Page” values, keep them as their own group  Some of the example Templates will provide an example  I.E. “the Color template” |
| **Shape Type** | **R** | |  | | --- | | **Shape Type -** Key identifier used by the application for specific actions | | **Page Setup** – user can specify a Visio diagram page size and Orientation  First part is the Orientation  Second part is Page size  I.e. Portrait:Legal = Orientation is Portrait and size is 8.5 x 14  Default is 8.5 x 11 if you don’t specify a **Page Setup** entry  Format is Orientation followed by “:” character followed by page size  Orientation: Landscape or **Portrait** (default)  Size: **Letter** (default), Tabloid, Ledger, Legal, A3, A4  **Page Setup** – User can specify to allow Visio to expand or use pages   * **Autosize:false** (default) use pages. Visio Page you can determine which page to drop the stencil on * **Autosize:true** – Visio will auto size diagram and ignore the Visio Page field | | **Template** – user can specify a Visio template file to use  If no **Template** entry is present a blank Visio diagram will be created.  **Note**: creating a Visio template file that contains one or more Stencils may be best  Enter the Template full path and name in the “Unique Key” field  Use the “Shape Label” field for adding comments to this entry if needed  No other fields are required | | **Stencil** – user can specify a Visio Stencil file to use  Multiple Stencil files can be added to one Visio diagram  Enter the Stencil full path and name in the “Unique Key field”  Use the “Shape Label” field for adding comments to this entry if needed  No other fields are required | | **“Shape”** – Stencil image to be placed on the Visio Diagram  Note: Additional fields in this row when using this “Shape Type” key | | **“Disabled”** – Ignore this row from being processed (shown) on the Visio Diagram |   Supported **(See Below for Dropdown list)** |
| **Unique Key** | **R\*\*** | **Unique Key** – Must be a unique value.  This field must be a unique value within this data file  Its primary use is to make each stencil row a unique row. This value is what will be used when connecting shapes together.  A common format for using this filed can be as follows: use the value from the field “Shape Image” followed by ‘:’ character than another value to make it unique. Like the page number or some Alpha character.  In some cases, there will be multiple rows using the same “Shape Image”. This field is used to keep them all unique.   * + - * + If the same “Unique Key” value is used on a different row the applications will display an error stating a duplicate “Unique Key” was found. This requires the designer to resolve this issue.   Usage example: Display two different footers in the Visio diagram. One on page 1 and another on page 2  Create two rows in the data file, one for footer 1 and another for footer 2. Each footer row will contain a different Unique Key, description as well as PosX and PosY values  Set the value in “Visio Page” to be the page this row will be drawn on  Use the value “footer” for the “Shape Image” field for both entries  Set “Unique Key” value for Footer 1 to “footer:1”  Set “Unique Key” value for Footer 2 to “footer:2”   * + - * + Another example using multiple “server” shape entries   Each row that contains a “Shape Image” of “server” will need to have a unique “Unique Key” value  “Unique Key” would always start with the Shape image value “server” followed by “:” followed by a unique string  I.E Unique Key = “Shape Image” +”:1-PWRX”  (Production WRX server 1)  I.E Unique Key = “Shape Image” +”:1TWRX”  (Test WRX server 1) |
| **Shape Image** | **R\*** | Stencil image name. Must be exactly name as in the Visio Stencil  Supported **(See Below**)  **(Dropdown list)** |
| Shape Label | O | Text to display as the shape label |
| Shape Label Font Size | O | |  | | --- | | font size to use with Stencil text **(Dropdown list)** | | Font size range 6pt – 14pt | | Supports **Bold**. Append “:B” after font size | | I.E **12:B will use 12pt font and make Bold**  I.E 12 only will use 12pt normal weight | |
| Mach Name | O | At this time this field is not used. Part of Systems query |
| Mach ID | O | At this time this field is not used. Part of Systems query |
| Site ID | O | At this time this field is not used. Part of Systems query |
| Site Name | O | At this time this field is not used. Part of Systems query |
| Site Address | O | At this time this field is not used. Part of Systems query |
| Omni Name | O | At this time this field is not used. Part of Systems query |
| Omni ID | O | At this time this field is not used. Part of Systems query |
| Site\_ID Omnis\_ID | O | At this time this field is not used. Part of Systems query |
| IP | O | If populated this value will be added to the stencil label |
| Ports | O | If populated this value will be added to the stencil label |
| Device Count | O | If populated this value will be added to the stencil label as a count (may be used with number of sites/cab’s) |
| **PosX** | **R\*** | X value to place the stencil image |
| **PoxY** | **R\*** | Y value to place the stencil image |
| Width | O | Width to increase/decrease the stencil image (normally is 0.0) |
| Height | O | Height to increase/decrease stencil image size (normally 0.0) |
| Fill Color | O | Fill color options (**see below**)  **(Dropdown list)**  **Note: some stencil images can’t be filled** |
| RGB Fill Color | O | If a color is not available in the dropdown you may enter the RGB value here. I.E. RGB(128.30,128) |
| Connect From | O | Blank if this object is not connecting  Otherwise, should contain the Unique Key value to the object to connect from |
| From Line Label | O | Text to display as the connector label |
| From Line Pattern | O | Connection line pattern - Supported (**See Below**)  Default is Solid  **(Dropdown list)** |
| From Arrow Type | O | Specify is Arrow(s) are to be used with connectors  Default is no arrows  Supported **(See Below**)  **(Dropdown list)** |
| From Line Color | O | Connector line color. Default is Black  Supported **(See Below**)  **(Dropdown list)** |
| From Line Weight | O | Connection line Weight (thickness). Default is “1 pt”  Supported **(See Below**)  **(Dropdown list)** |
| Connect To | O | Blank if this object is not connecting  Otherwise, should contain the Unique Key value to the object to connect to |
| To Line Label | O | Text to display as the connector label |
| To Line Pattern | O | Connection line pattern - Supported **(See Below**)  Default is Solid  **(Dropdown list)** |
| To Arrow Type | O | Specify is Arrow(s) are to be used with connectors  Supported **(See Below**)  Default is no arrows  **(Dropdown list)** |
| To Line Color | O | Connector line color. Default is Black  Supported **(See Below**)  **(Dropdown list)** |
| To Line Weight | O | Connection line Weight (thickness). Default is “1 pt”  Supported **(See Below**)  **(Dropdown list)** |

**R\*** - Only required if the “**Shape Type**” value is “**Shape**”

**R\*\*** - Only required if the “**Shape Type**” value is “**Shape**”

This is a special column that must be unique through the Excel data file. Unique across multiple pages

Normally I would use the shape name”:”row #. This is used for making connections to other shapes

**Note**: The excel data file columns in Red are required

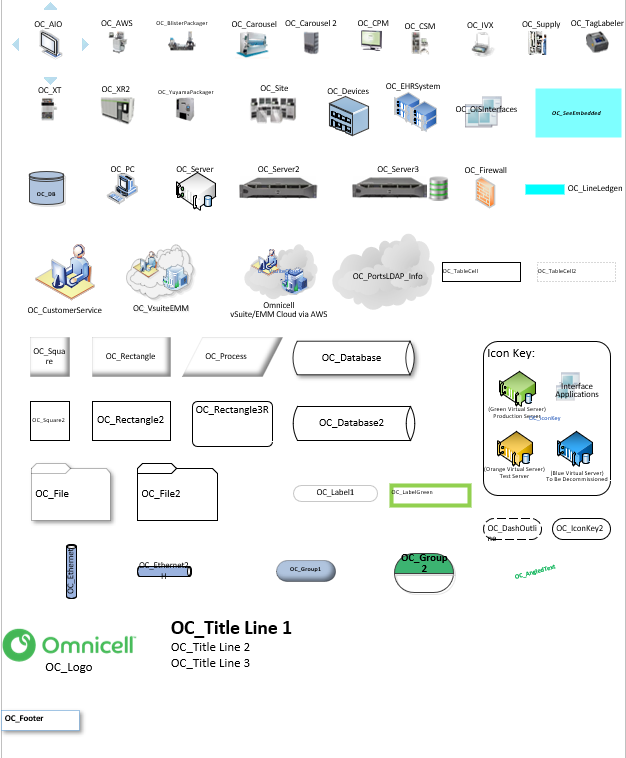
For optional fields leaving the entry blank will use a default value

I.E. Arrows if you don’t want any arrows make this field blank

I.E. If you don’t want any fill color or connection line color leave the field blank (default is Black)

## Stencil Images and Names

The stencils are generated from the “OC\_ArchitectBlueprintingData\_ColorTesting.xlsx” Excel Data file provided in the Data/ScriptData folder.



**Note**: The stencil shape “OC\_DashOutline” is somewhat special. It’s mainly used to surround a group of other stencils or section. The “Fill Color” will only change the stencil line color, it will not be filled. The stencil will appear to be transparent.

## Supported colors and connector line weights



Color values are available for the following columns (“**Fill Color”, “From Line Color”, “To Line Color”**).

## Dropdown list for some columns (Excel data file template (Tables tab))

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Colors | Arrows | Shape Label Font size | Line Pattern | Stencil Label Position | Shape type | Line Weight | Default Stencil Names |
| See above |  |  |  |  |  |  | See above |
|  | None | 6 | Solid | Top | Disabled | 1.5 pt |  |
| ` | Start | 6:B | Dashed | Bottom | Template | 2 pt |  |
|  | End | 8 | Dotted |  | Stencil | 2.25 pt |  |
|  | Both | 8:B | Dash\_Dot |  | Page Setup | 3 pt |  |
|  |  | 9 |  |  | Shape | 4 pt |  |
|  |  | 9:B |  |  |  | 6 pt |  |
|  |  | 10 |  |  |  |  |  |
|  |  | 10:B |  |  |  |  |  |
|  |  | 11 |  |  |  |  |  |
|  |  | 11:B |  |  |  |  |  |
|  |  | 12 |  |  |  |  |  |
|  |  | 12:B |  |  |  |  |  |
|  |  | 14 |  |  |  |  |  |
|  |  | 14:B |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**Note:** selecting a blank from the list will use the default value

This is what the Excel data file template “Tables” sheet contains. You may only need to modify the Default Stencil Names if you add a custom stencil.

These value above are controlled by the OmnicellBlueprintingTool.json file

The application can be flexible to add additional font sizes or Stencils by making additions to the section for that value. Also new colors can be added if needed. The user has the ability to add new RGB and color name values if they see fit. Or they can enter the RGB color value in the RGBFillColor field within the Excel Data File.

Remember the Table sheet is just to allow the user to be able to select values. If new values are added, they must also be added to the OmnicellBlueprintingTool.json file. This is where the applications will read the values when processing both Excel data file and Visio Diagram files.

You will also need to add modifications to the Table sheet column as needed for dropdown selections.

I.E. Arrows: blank entry on the Excel row will cause Visio to use an arrow without arrows

## Sample Excel data file breakdown



Shape to drop on Page 2

Shape Type:

Unique Key to identify row

Position text at bottom

Comment

Header

Template definition to add

Stencil definition to add

Visio Page setup size/Orentation

Set true if not using pages. You don’t need to set Visio page

Diagram can grow

Shape to draw on Page 1

Use Font size 10pt and Bold

Comment

Stencil text to display

Stencil fill color

Stencil drop location (PosX, PosY)

Stencil size Width

Stencil size Height

# of devices. This text will be added to the label

Port value will be added to label

IP value will be added to label

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| IP |  | Ports | Devices Count | PosX | PosY | Width | Height | Fill Color |
|  |  |  |  | 0.250 | 10.750 | 0.000 | 0.000 |  |
|  |  |  |  | 3.125 | 10.750 | 0.000 | 0.000 |  |
|  |  |  |  | 0.25 | 1.75 | 0 | 1.125 |  |

Connect From Line Color

Arrow Type

Line pattern

Line Label

Shape Key value to connect to

Note: At times a shape needs to connect to two shapes use the “Connect From” for this means

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Connect From | From Line Label | From Line Pattern | From Arrow Type | From Line Color |
|  |  |  |  |  |
|  |  | Solid | None |  |
|  |  | Solid | None |  |

Connect To Line Color

Arrow Type

Line pattern

Line Label

Shape Key value to connect to

Note: for single connections use the “Connect To” section

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Connect To | To Line Label | To Line Pattern | To Arrow Type | To Line Color |
|  |  |  |  |  |
|  |  | Solid | None |  |
|  |  | Solid | None |  |

Not used

Will be added to Label

Not used

Not used

Not used

Not used

Not used

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| mach\_id | site\_id | site\_name | site\_address | omnis\_name | omnis\_id | site\_id\_omnis\_id |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

## User feedback