

WinMark Pro Application Note

WinMark Pro v6's new UID/Composite Code functionality

WinMark Pro build 6.0.0.6654 features the ability to generate Unique Identification (UID) or composite 2D codes. This feature allows you to select from several pre-defined UID codes or create a "custom" UID code per your specific requirements. In addition, you can create composite 2D codes; for example, create a 2D code that contains both a date code string and an auto-serializing serial number string.

The following steps describe how to create a UID code in WinMark v6, build 6654:

- 1 Click the *2D Barcode Tool* and then click on the *Drawing Canvas* to position the code.
- 2 With the 2D Code selected, click the *Automation* tab, and then click **Auto Text Type**.
- 3 Click the arrow button and in the drop-down list, choose *UID/Composite* (Figure 1).

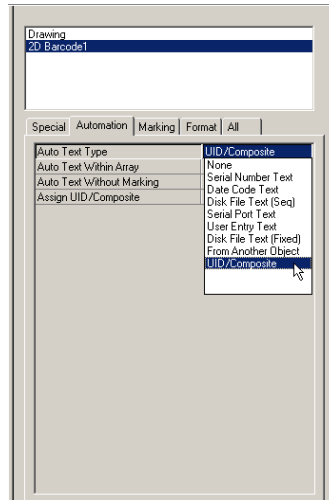


Figure 1 Select AutoText Type UID/Composite

- Click the **Assign UID/Composite** property and then click the ellipsis (...) button (Figure 2).

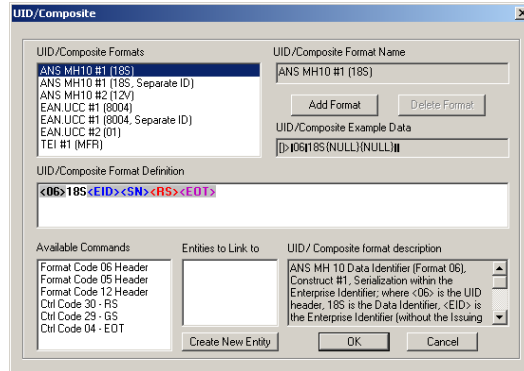


Figure 2 UID/Composite dialog box

- In the *UID/Composite* dialog box, select a pre-formatted UID code or add a custom format.

Pre-defined choices include:

ANS MH10 #1 (18S) – Format 06, Construct #1, serialization within Enterprise Identifier
ANS MH10 #1 (18S, Separate ID) – Serialization within EI and separate ID for data elements

ANS MH10 #2 (12V) – Format 06, Construct #2, serialization within Original Part Number

EAN.UCC #1 (8004) – Format 05, Construct #1, serialization within Enterprise Identifier
EAN.UCC #1 (8004, Separate ID) – Serialization within EI and separate ID for data elements

EAN.UCC #2 (01) – Format 05, Construct #2, serialization within Part Number

TEI #1 (MFR) – Format 12, Construct #1, serialization within Enterprise Identifier

Note: WinMark Pro will automatically reset the mark order as required so that any serialization, date coding, etc., will occur before the UID/Composite code and/or human-readable text string is marked.

To use a pre-defined UID format:

- Click the desired pre-defined format in the *UID/Composite Formats* field. The *UID/Composite Example Data* field displays the data that will be encoded in the 2D Code.

Dark bars within the data represent Record Separator (R/S), Group Separator (G/S) and End Of Transmit (EOT) control codes.

{NULL} fields indicate that linked text, barcode, or 2D Code entities contained in the *UID/Composite Format Definition* field to not currently exist.

- 2 Click *OK* to close the *UID/Composite* dialog. If the required entities do not already exist on the *Drawing Canvas*, WinMark asks to create them (Figure 3).

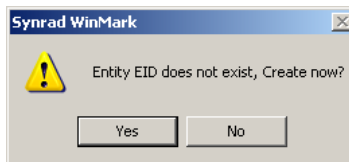


Figure 3 Automatically create linked entity?

- 3 Click *Yes* and then choose an object type (text, barcode, or 2D Code). Change the linked object name as required for your specific UID application. Click *OK* when done (Figure 4).

If more than one linked entity is required in the code format string, WinMark will ask to create each linked entity in order.

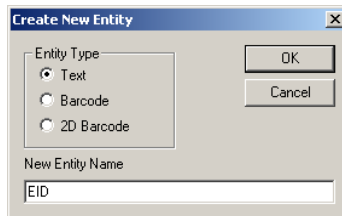


Figure 4 Create New Entity dialog

- 4 When the *Create New Entity* dialog closes, all linked entities appear beside the UID/Composite code on the *Drawing Canvas* (Figure 5).

When the linked entity is a text object, it is displayed in blue when the UID/Composite 2D Code is selected. Linked barcode or 2D Codes are displayed in black.

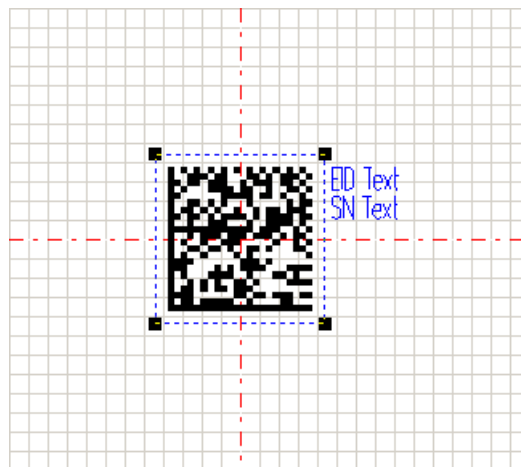


Figure 5 UID Code and linked entities on Drawing Canvas

Note: The **Mark Object** property for linked entities automatically defaults to *No*. If you need to print human-readable text with the 2D Code, change this value to *Yes* and rearrange the linked text objects on the *Drawing Canvas* as required.

- 5 Click on each linked entity and enter the required data values. You can enter fixed data (**Auto Text Type** set to *None*) or choose an auto text function like *Serial Number Text*, *Disk File Text*, etc.

Important Note: A new property, **Auto Text Without Marking**, was added to allow automated text functionality when a text, barcode, or 2D Code object is defined as a non-marking linked object. By default, this property is *Yes* for non-marking linked objects defined in a UID/Composite barcode string. This allows automated text functions (like *Serial Number Text* or *Disk File Text*) to increment when the linked object's **Mark Object** property is *No*.

For "standard" text, barcode, or 2D Code objects, **Auto Text Without Marking** defaults to *No*, so that text automation, like serialization, does **not** occur if the object's **Mark Object** property is *No*. This new property maintains WinMark Pro's prior behavior of handling automated text functions.

Note: When serializing a concatenated string like a GIAI (Global Individual Asset Identifier) where part of the string is fixed data and part is a sequential serial number, remember that the *Serial Number Text* function allows you to mask off characters in the string that must **not** serialize.

- 6 Click the UID/Composite code object and setup the marking parameters required for your particular substrate.

Tip: To display/mark human-readable text showing UID header data, or to display/mark human-readable text when linked objects are barcode or 2D Code objects, create a new text object. On the *Automation* tab, click **Auto Text Type**, and in the drop-down list, choose *From Another Object*. Click **Assign From** and choose the 2D Barcode object that contains your UID data.

When the human-readable text object has a **Font Type** of *Stroke*, UID header and data is displayed/marked as a single string without control codes¹. If **Font Type** is *True Type* or *Open Type*, control codes are shown as rectangular boxes (representing non-printable ASCII characters).

Note 1: As an aid to verify that non-printing control codes are correct, human-readable linked text objects using the **Simple Stroke** font will display and print the symbols R_s , G_s , and E_{OT} . If you do not wish to display/print these symbols, change the **Stroke Font** property to display any of the other 11 built-in stroke fonts.

To create a new UID/Composite format based on an existing format:

- 1 In the *UID/Composite* dialog box, select a pre-defined format in the *UID/Composite Formats* field.
- 2 In the *UID/Composite Format Definition* field, use your cursor to select the definition string. Press the “CTRL” key and the “C” key on your keyboard to copy the string to the Windows Clipboard.
- 3 In the *UID/Composite* dialog box, click the *Add Format* button.

The *UID/Composite Format Name* field displays the default name, UID/Composite 0. If that name exists, then the next higher sequential number is used. You can edit this name as required.

- 4 The *UID/Composite Format Definition* field displays “UNDEFINED” (Figure 6).

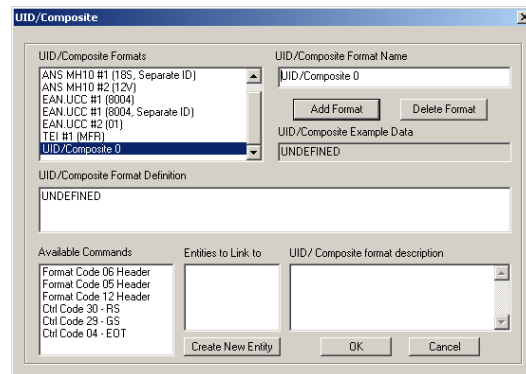


Figure 6 Create new UID format or composite code format

- 5 Double-click the “UNDEFINED” text and then press the “CTRL” key and the “V” key to paste the format string into the *UID/Composite Format Definition* field.

Edit the format definition as required. To move an entity or control code within the format definition, double-click the entity and then press the DEL key on your keyboard. Reset the cursor to the correct location and then double-click a selection from the *Entities to Link to* or *Available Commands* field.

Add fixed text or characters by typing at the desired cursor location. If required, select and double-click a Control (Ctrl) Code to add a Record Separator (R/S), Group Separator (G/S), or End Of Transmit (EOT) code at the insertion point indicated by the cursor.

- 6 To create a linked object, click the *Create New Entity* button. Select an entity type and enter a name for the object. Click *OK*.
- 7 In the *Entities to Link to* field, double-click the entity. WinMark Pro adds the selected linked entity at the cursor location in the *UID/Composite Format Definition* field.

- 8 To enter a description of your code format for future reference, type or copy/paste descriptive text into the *UID/Composite Format Description* field. Figure 7 shows a new UID code based on an existing format.

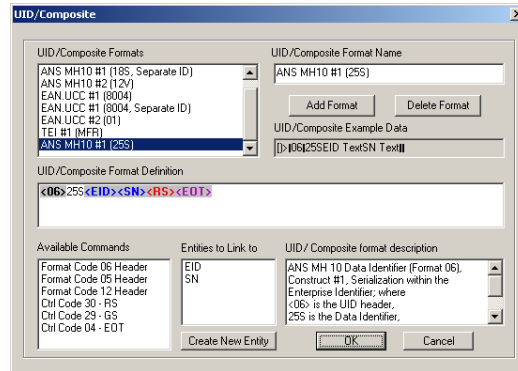


Figure 7 User-entered UID code format

- 9 When done, click *OK*. All linked entities you have created will appear on the *Drawing Canvas* as non-marking objects.

When the linked entity is a text object, it is displayed in blue when the UID/Composite 2D Code is selected. Linked barcode or 2D Codes are displayed in black.

- 10 Click the UID/Composite code object and setup the marking parameters required for your particular substrate.

Note: See the “Tip:” in the previous section for information about adding a human-readable text object that displays the contents of the UID/Composite code.

To create a new UID or composite format:

- 1 In the *UID/Composite* dialog box, click the *Add Format* button.

The *UID/Composite Format Name* field displays the default name, UID/Composite 0. If that name exists, then the next higher sequential number is used. You can edit this name as required.

- 2 The *UID/Composite Format Definition* field displays “UNDEFINED” (Figure 8).

Double-click the “UNDEFINED” text and then double-click a Format Code Header type in the *Available Commands* field to begin a UID definition or add fixed text or characters by typing at the cursor location. If required, select and double-click a Control (Ctrl) Code to add a Record Separator (R/S), Group Separator (G/S), or End Of Transmit (EOT) code at the insertion point indicated by the cursor.

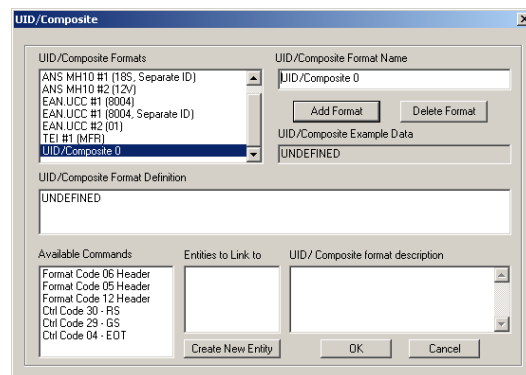


Figure 8 Create new UID format or a composite code

- 3 To create a linked object, click the *Create New Entity* button. Select an entity type and enter a name for the object. Click *OK*.
- 4 In the *Entities to Link to* field, double-click the entity. WinMark Pro adds the linked entity at the cursor location in the *UID/Composite Format Definition* field.
- 5 To move an entity or control code within the format definition, double-click the entity and then press the DEL key on your keyboard. Reset the cursor to the correct location and then double-click a selection from the *Entities to Link to* or *Available Commands* field.
- 6 To enter a description of your code format for future reference, type or copy/paste descriptive text into the *UID/Composite Format Description* field. Figure 9 shows a composite code containing a time stamp and serial number.

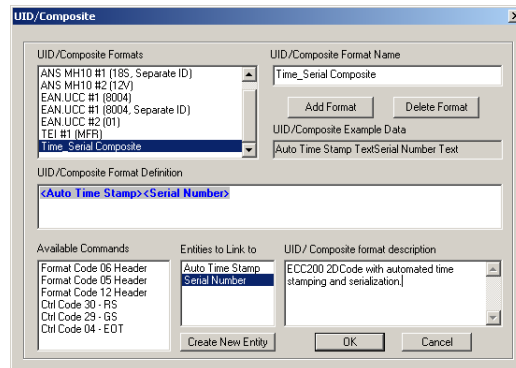


Figure 9 Sample composite code

- 7 When done, click *OK*. All linked entities you have created will appear on the *Drawing Canvas* as non-marking objects.

When the linked entity is a text object, it is displayed in blue when the UID/Composite 2D Code is selected. Linked barcode or 2D Codes are displayed in black.

- 8 Click the UID/Composite code object and setup the marking parameters required for your particular substrate.

Tip: To display/mark human-readable text showing UID or composite code data when linked objects are barcode or 2D Code objects, create a new text object. On the *Automation* tab, click **Auto Text Type**, and in the drop-down list, choose *From Another Object*. Click **Assign From** and choose the 2D Barcode object that contains your composite data.

When the human-readable text object has a **Font Type** of *Stroke*, UID/Composite data is displayed/marked as a single string without control codes¹ (if any exist). If **Font Type** is *True Type* or *Open Type*, any existing control codes are shown as rectangular boxes (representing non-printable ASCII characters).

Note 1: As an aid to verify that non-printing control codes are correct, human-readable linked text objects using the **Simple Stroke** font will display and print the control code symbols R_s , G_s , and E_{O_T} . If you do not wish to display/print these symbols, change the **Stroke Font** property to display any of WinMark Pro's other 11 built-in stroke fonts.