



Using GS1 Application Identifiers

Adding Application Identifiers using
BarTender's Application Identifier Wizard

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Overview

An *Application Identifier* is a number at the beginning of a string of data that identifies the intended interpretation of the data that follows. It also identifies the size of the data. The GS1 specifications define numerous Application Identifiers, such as serial number or expiration date.

Some Application Identifiers specify data fields containing a fixed number of characters, while others specify data fields containing a variable number of characters. For example, the Global Trade Item Number (GTIN) shown here is a fixed-length field that contains exactly 14 characters. The Application Identifier for a container code is "01". (The "6" on the end is a check digit automatically generated by BarTender.)



The serial number is a variable-length field that may contain up to 20 characters. Its Application Identifier is "21," and no check digit is required.



Multiple Application Identifiers and their data fields can be combined into a single barcode.



When a variable-length data field is combined with other fields in a barcode, it must be immediately followed by a field separator character (unless it is the last field in the barcode symbol – see note below). The FNC1 character, "^1", acts as this field separator. It signals that the variable length data field has ended and that another data field is beginning. (This character is suppressed in the human readable part of the barcode.)

NOTE: When you are concatenating multiple Application Identifiers and their fields but only one of them is of variable length, we recommend locating the variable-length field at the end of the symbol, so you won't have to use a separator character.

BarTender's Application Identifier Wizard makes it easy to construct barcodes with the Application Identifiers and field separator characters inserted perfectly. (The wizard is not available in the Basic or UltraLite editions). The rest of this paper shows examples of the wizard in use.


For more information, refer to the [GS1 Application Identifier Data Source Wizard](#) topic in BarTender's help system.

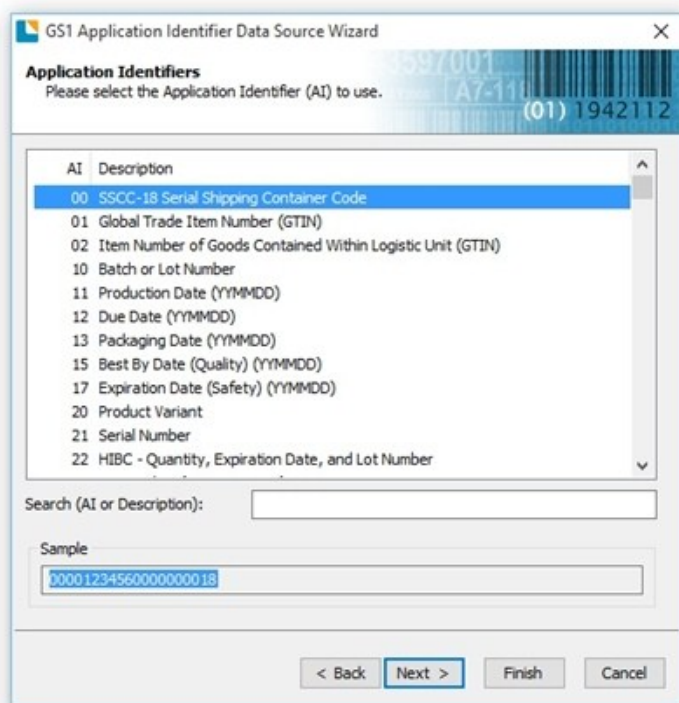
Example 1: Single Application Identifier

This example will show how to use the Application Identifier Wizard to construct a single barcode with a single Application Identifier and associated data string.

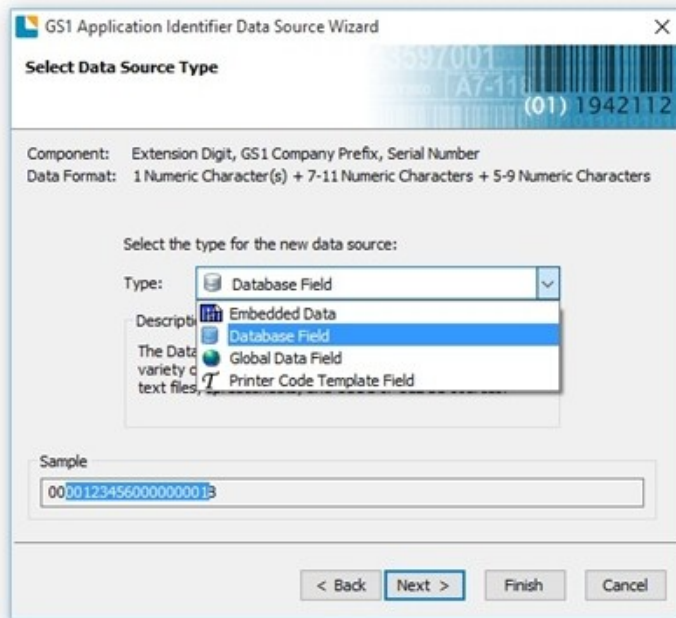
Scenario: A box must have a simple barcode label containing the serial shipping container code number.

To construct this barcode:

1. Open BarTender.
2. Create a new BarTender document. Select and configure the printer stock using the **New Document Wizard**.
3. On the Object Toolbar, click the  icon and select **More Barcodes**. The **Select Barcode** dialog opens.
4. In the search bar, enter "GS1-128" (without the quotes). Click the first barcode that appears and click **Select** to close the dialog.
5. Click anywhere on your template to add the barcode.
6. Double-click on the barcode object. The **Barcode Properties** dialog opens.
7. From the Navigation Pane, click **Symbology and Size**.
8. Click the **GS1 Application Identifier Data Source Wizard** button to open BarTender's Application Identifier Wizard.
9. Click **Next**. The **Application Identifiers** page of the wizard opens.
10. Using either the Search field or the scroll bars, select the desired Application Identifier. (In this example, **00 SSCC-18 Serial Shipping Container Code** is used)
11. Click **Next**. The **Data Source Linking** page of the wizard opens.
12. Select **One data source for all components**.
13. Click **Next**. The **Select Data Source Type** page of the wizard appears.

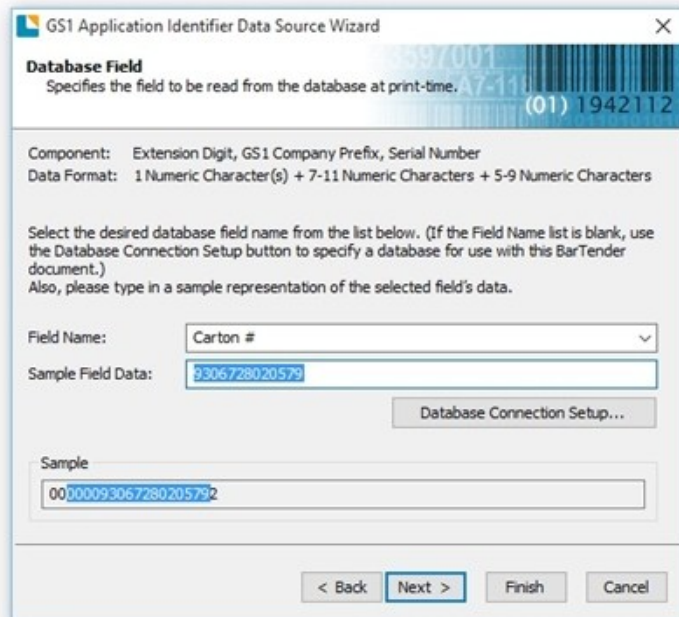


- From the **Type** dropdown list, choose a data source. Your options will depend on the Application Identifier you selected. For example, system date will not be an available option for a container code, but it would be for an expiration date. In this example, select **Database Field**.



- Click **Next**. The **Database Field** page opens.
- From the **Field Name** dropdown list, select the field that will provide the data for the shipping code. You can also change the default data for the field in the **Sample Field Data** box.

NOTE: If the database connection has not already been set up, the **Field Name** dropdown list will be empty. Click the **Database Connection Setup** button and let the **Database Connection** wizard guide you through the process.



17. When you're finished, click **Next**. The **Append More Data** page opens, giving you the option to concatenate another Application Identifier and data field. For this example, select **No, I don't need any more**.
18. Click **Next**.
19. Click **Finish** to close the **GS1 Application Identifier Data Source Wizard**.
20. Click **Close** on the **Barcode Properties** dialog. You should now have a barcode that looks like the following:



(00) 0 0009306 728020549 5

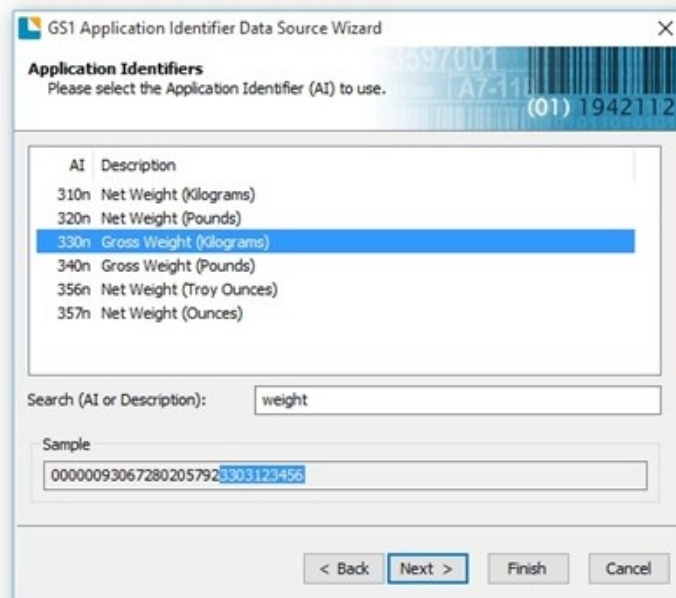
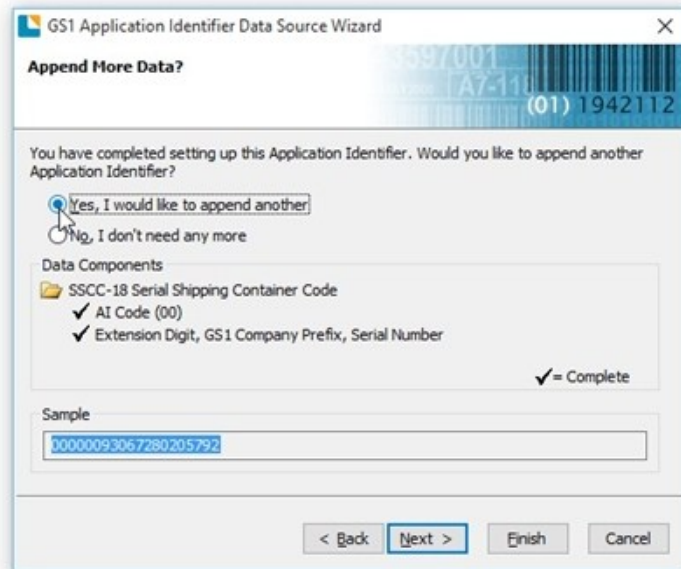
Example 2: Two Concatenated Application Identifiers

This example will show how to construct a barcode with two Application Identifiers, each followed by a data field.

Scenario: An outer shipping carton needs a label with a barcode containing serial shipping container code and the weight of the carton.

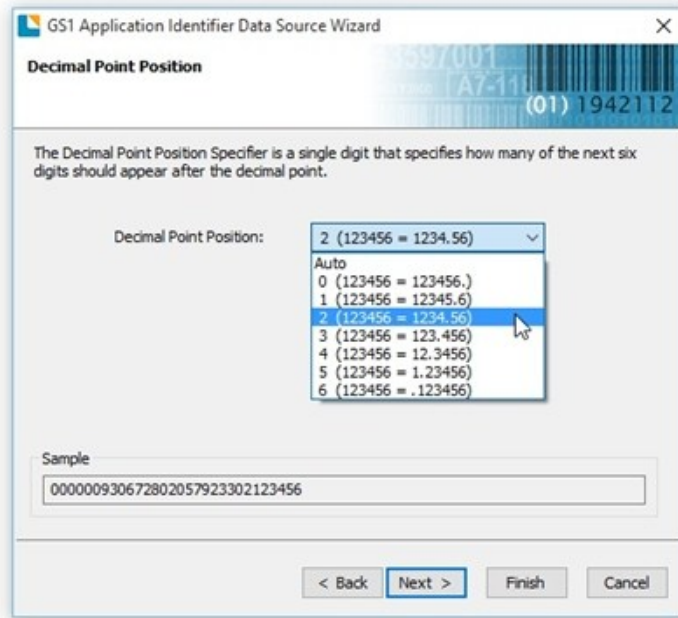
The first sixteen steps are exactly the same as in [Example 1](#). Complete those steps, and then continue as follows:

1. On the **Append More Data** page, select **Yes, I would like to append another**.
2. Click **Next**. The **Application Identifiers** page reopens.
3. Select **330n Gross Weight (Kilograms)**. (Entering “weight” in the Search box will immediately exclude from the list the Application Identifiers that have nothing to do with weight.)



4. Click **Next**. The **Ready to Setup Data Component** page opens, showing that the next step is to specify where the decimal point will be.
5. Click **Next**. The **Decimal Point Position** page opens.

6. Select the desired decimal point position from the dropdown list. (In this example, we select option 2.)
7. Click **Next**. The **Ready to Setup Data Component** page opens again, showing that the last step is to configure the data field itself.
8. Click **Next**. The **Select Data Source Type** page opens.
9. From the **Type** dropdown list, select **Embedded Data**.
10. Click **Next**. The **Embedded Data** page opens.
11. Enter the data for the field. In this example, we will use 21.46 kg.
12. Click **Next**. The **Append More Data** page opens.
13. Select **No, I don't need any more**.
14. Click **Next**.
15. Click **Finish** to close the wizard.
16. Click **Close** to close the **Barcode Properties** dialog. You should now have a barcode that looks like the following:



Related Documentation

BarTender Help System

- [Understanding Barcode Symbologies](#)
- [GS1-128 \(UCC/EAN-128\) and Application Identifier Specification](#)
- [GS1 Application Identifier Data Source Wizard](#)
- [Barcode Objects](#)

External Documentation

To learn more, please visit the GS1 website at <http://www.gs1.org>.

- GS1 Application Identifiers (PDF)
http://www.gs1.org/sites/default/files/docs/barcodes/GS1_Application_Identifiers.pdf
- GS1 General Specifications (PDF)
http://www.gs1.org/docs/barcodes/GS1_General_Specifications.pdf

