BASIS Brews a New Product
Barista at a Glance

Form Specifications
Data Definitions
Integrity Constraints

Business Logic

Metadata

BARISTA™

BASIS

GUI Applications

Generated Forms

Application Framework

Brewing up GUI Apps With Barista Application Framework

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Almost as fast as the Starbucks barista turns milk, java beans, and water into a hot frothy cappuccino, the BASIS Barista™ rapidly turns data and legacy business logic into a shiny new BBj® graphical application!

Meet Barista – a powerful new framework that allows developers to build an application quickly by simply defining the data and its interrelationships. Barista is not a code generator; rather, it provides a standard framework that handles the ubiquitous navigation, display, search, and file maintenance requirements of the typical data-driven GUI application. While it provides callpoints to enable the developer to include proprietary business logic, Barista itself handles the vast majority of the standard application programming, providing a fast way to create modern-looking applications like the sample shown in **Figure 1** with existing or new data sets.

Figure 1. Customer Data Maintenance

Figure 2. Establishing validation and query rules for an element type

Data Driven

To build an app in the Barista Application Framework, the developer begins by defining the types of data the application will use, as shown in **Figure 2**. In addition to defining the size and type of each data element, the developer also specifies how to display, validate, and store the field.

Next, the developer defines a table based on those data elements, specifying the file name, file type, record layout, and key structure shown in **Figure 3**.

Figure 3. A table created in Barista Application Framework

Figure 4. The **Customers** form as originally created by Barista

Finally, the developer builds a maintenance program like the one shown in **Figure 4** using the Barista Form Designer.

The generated screen interacts with the toolbar (**Figure 5**) at the top of the Barista MDI window and allows for the navigation, search, creation, etc. of records. The binoculars toward the middle of the toolbar initiate an inquiry of the current table, as shown in **Figure 6**. This provides the user with a quick way to look up any record within the table.

Figure 5. The Barista MDI Toolbar

Figure 6. The **Customers Inquiry** screen

A magnifying glass tool button and the salesperson name appear following the **Salesperson** field in the newly generated customer as shown below.

Barista automatically added this toolbar because the salesperson field defined a table validation against the salesperson table. When users interact with this form, they are constrained to existing records in the salesperson table. They can use the magnifying glass to query the salesperson table from this form.

These examples illustrate some commonly performed data-centric behaviors that Barista implements automatically to significantly speed up development of the application.

Barista includes a form editor that enables the developer to fine-tune the generated form, for example, to change the default single-column layout to two columns, shown in **Figures 7**.
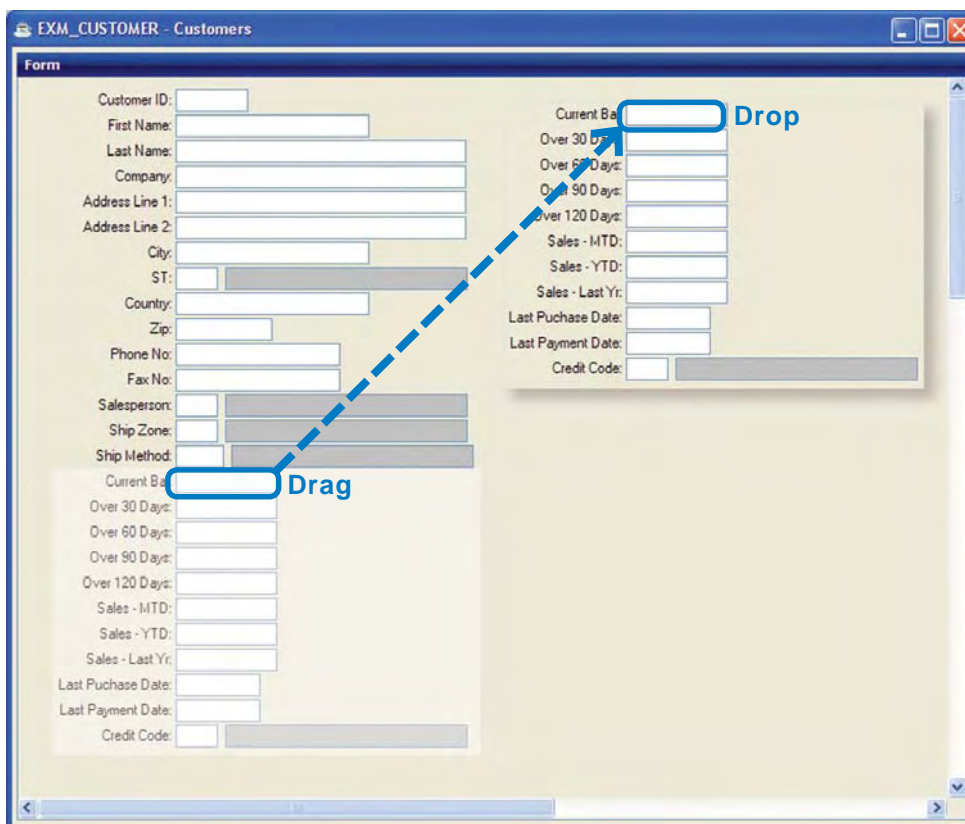
Figure 7. Dragging the **Current Bal** field to establish a second column

In addition to rearranging columns, developers can change the field sequence or add tabs and group headings, shown in **Figure 8**. These modifications can greatly improve the appearance and usability of the form.

It is easy to add a detail grid to display related information from another table, as shown in **Figure 9**.

Callpoints

Because of Barista's database capabilities and its graphical form designer, developers can essentially create and customize these forms without program code. However, there are times when a developer needs to add business-specific logic to the application. Whether it is performing advanced validation, executing auxiliary back-end programs, or starting a foreign application, callpoints provide appropriate places to run custom code. **Figure 10** shows the callpoint editor.

Figure 8. Tabbed interface and group headings

Figure 9. The detail grid displays other information related to the **User ID**
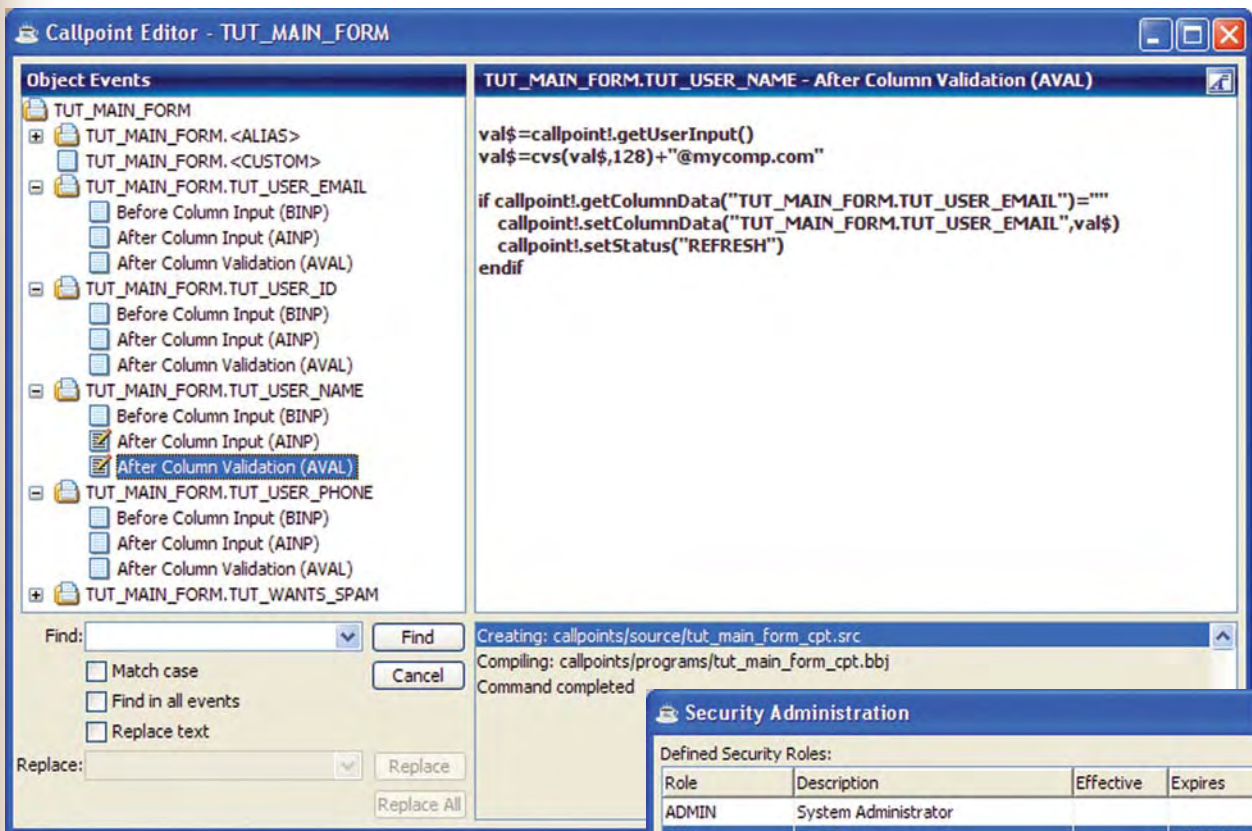
Figure 10. E-mail address automatically filled in based on the user name

Security

Barista supports a role-based security model, wherein it grants a user one or more roles. The administrator of an installation can fine-tune what permissions a given role has. This allows for quick granting and revocation of categories of access to individual users, as shown in **Figure 11**.

The Future

Since Barista handles much of the data display, access, and modification code, future versions of Barista will automatically update today's application with the newest features such as new GUI design standards, data lookup routines, or administrative utilities.

Barista is now appearing in the development build available for download from the BBj download page. It is an exciting product that will enable BASIS developers to build, maintain, and deploy modern GUI applications more quickly than ever before. ⏵BASIS⏴

To get started, see additional resources at
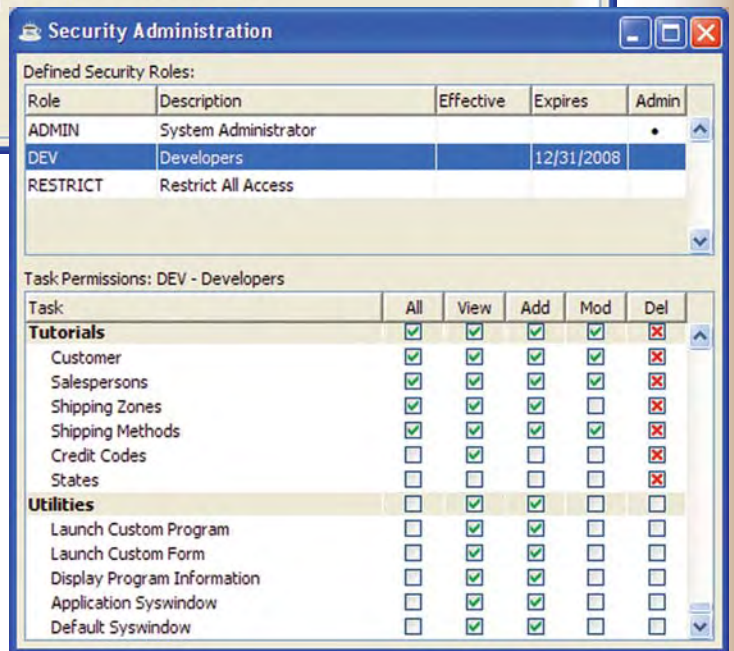www.basis.com/products/devtools/barista/documentation

Figure 11. Setting permissions on a per role basis

Attend Barista training to learn just how rapidly you can turn your data and legacy business logic into new graphical applications.

Look for upcoming dates and register!

www.basis.com/training

AddonSoftware

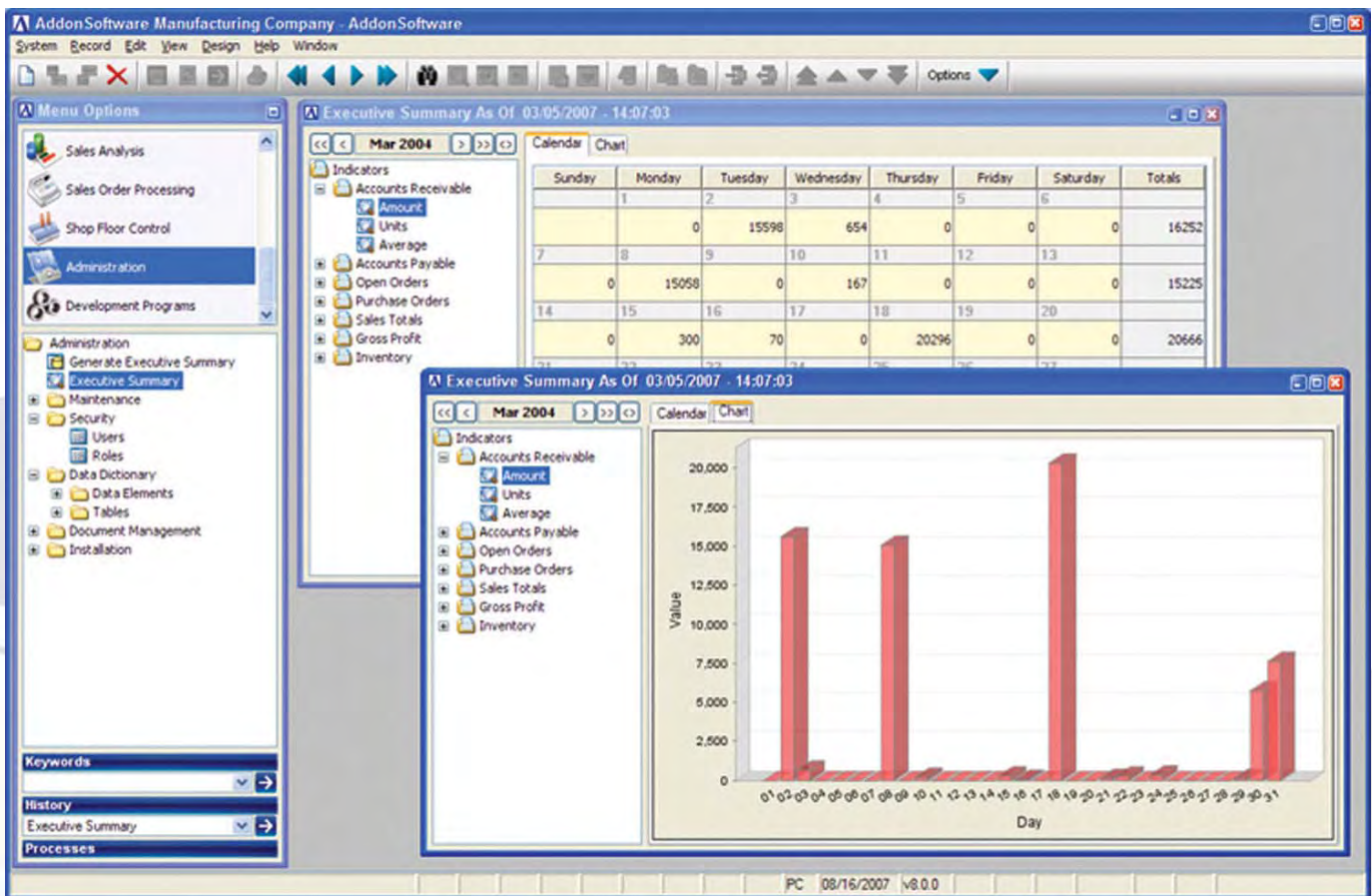## Version 8.0 Powered by Barista

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