Modernizing your COBOL application by using isCOBOL Compiler code injection

User Interface

From version 2019 R1 onward, you can use a compiler configuration variable to insert COBOL code that sets default properties and styles for graphical controls.

The configuration variable's syntax is:

```
iscobol.compiler.gui.<control-name>.defaults=...
```

The controls you can use this variable with are: bar, bitmap, check_box, combo_box, date_entry, entry_field, frame, grid, java_bean, label, list_box, push_button, radio_button, ribbon, scroll_bar, slider, status_bar, tab_control, tree_view, web_browser, window, and tool_bar.

This feature makes it easier to modernize GUI applications and saves development time. It gives you a way to apply new control properties and styles across your entire application without changing existing code, so you can quickly update the look and feel of your screens.

For example, here's a standard screen section description:

```
    01 s1.       03 ef1 entry-field          line 2 col  2 size 10.       03 ef2 entry-
field           line 2 col 14 size 10.       03 ef3 entry-field          line 2 col 26 size 10
.       03 pb1 push-button           line 5 col 10 size 10           title "Save" exception-value 1.
```

When compiled with these settings to add color and style to push-buttons and entry-fields:

```
iscobol.compiler.gui.push_button.defaults=flat, background-color -14675438iscobol.compi
ler.gui.entry_field.defaults=border-
color rgb x#dae1e5,                                           border-width (0 0 2 0 )
```

the compiler will treat the source code as if it were written as:

```
    01 s1.        03 ef1 entry-field            border-color rgb x#dae1e5
,            border-width (0 0 2 0)            line 2 col  2 size 10.        03 ef2 entry-field            border-
color rgb x#dae1e5,            border-width (0 0 2 0)            line 2 col  2 size 10.        03 ef3 entry-
field            border-color rgb x#dae1e5,            border-width (0 0 2 0)            line 2 col  2 size 10
.        03 pb1 push-button            flat, background-color -14675438            line 5 col 10 size 10
            title "Save" exception-value 1.
```

Code injection also affects controls created with single display statement, so that:

```
    display push-button            line 5 col 25 size 10            title  "End" exception-
value 27            handle in h-pb.
```

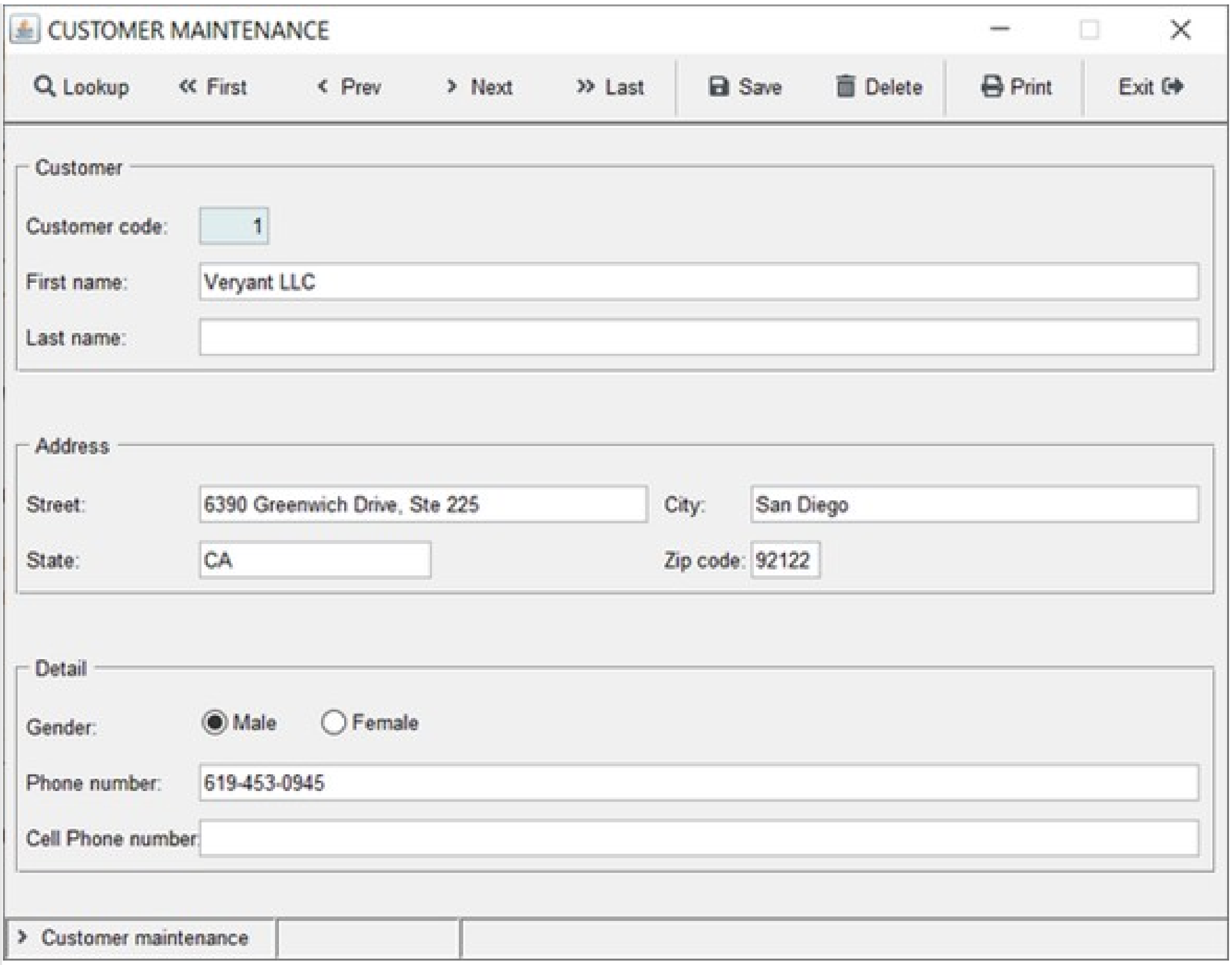
becomes:

```
    display push-button flat, background-color -14675438            line 5 col 25 size 10
            title  "End" exception-value 27            handle in h-pb.
```

With code injection, you can completely change the look of your application and modernize your screens without touching the original source code.

NOTE: Code injection works by inserting the text value of the configuration variables into the source code where controls are declared or created.
This means that any syntax errors in the configuration variables will result in compilation errors.

As an example, the following screen is a standard screen with slightly dated looking controls and window:



Customer code: 1

First name: Veryant LLC

Last name:

Street: 6390 Greenwich Drive, Ste 225

City: San Diego

State: CA

Zip code: 92122

Gender: ● Male ○ Female

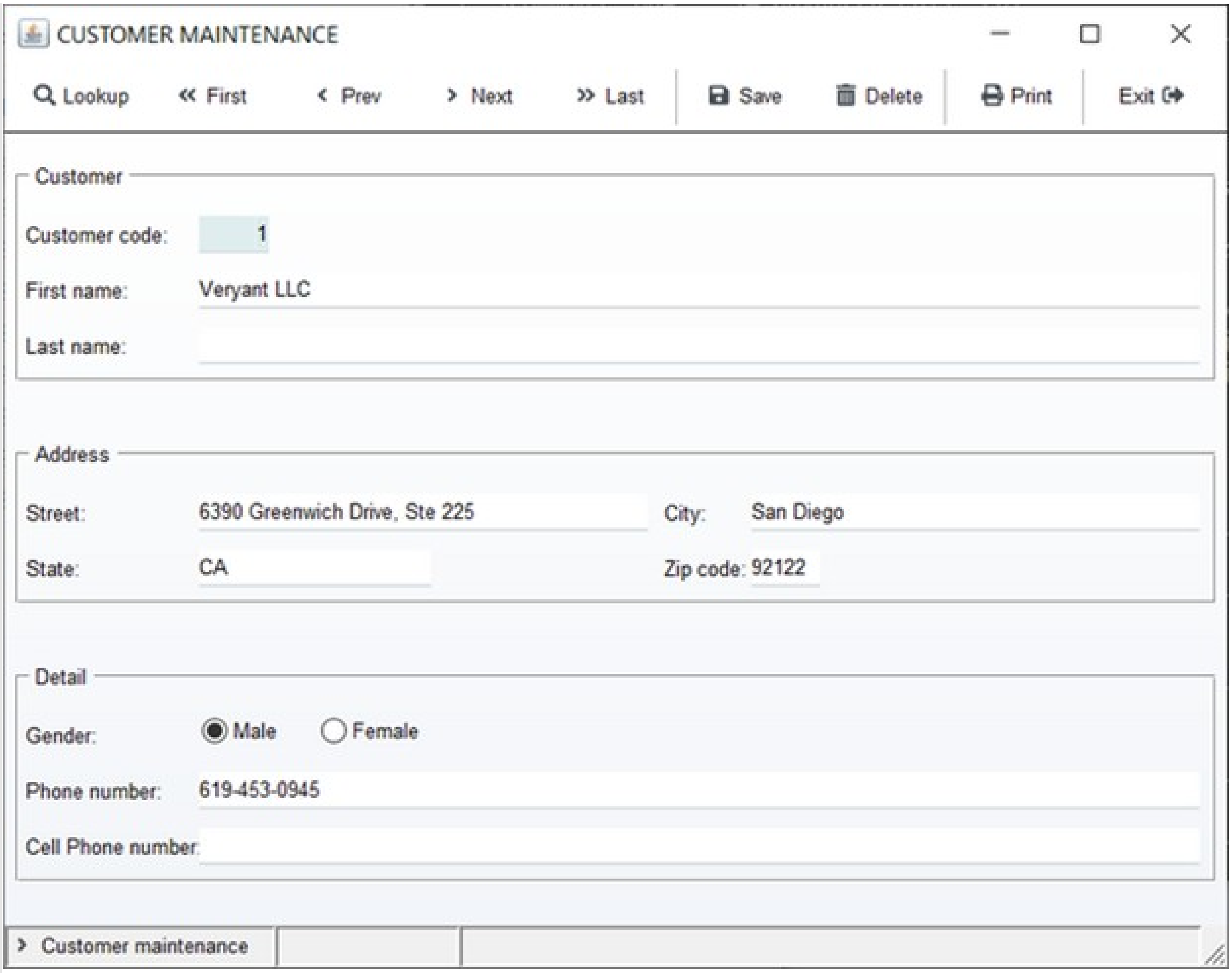
Phone number: 619-453-0945

Cell Phone number:

By compiling with the following compiler configuration:

```
   # Compiler.regexp to remove the 3D and "ERASE" styles when displaying the window   i
scobol.compiler.regexp="(?i)( 3-D,)" ""                                 "(?i)( 3-D)" ""
                       "(?i)( ERASE,)" ""                                 "(?i)( ERASE)" ""
   #### code injection for controls ####   # add the gradient color on all windows    i
scobol.compiler.gui.window.defaults=        gradient-color-1 rgb x#FFFFFF        gradie
nt-color-2 rgb x#F2F5F9          gradient-orientation gradient-northeast-to-southwest
   # add the transparent style to all labels, check-boxes and radio-buttons   iscobol.c
ompiler.gui.label.defaults= transparent   iscobol.compiler.gui.check_box.defaults= tran
sparent   iscobol.compiler.gui.radio_button.defaults= transparent   iscobol.compiler.gu
i.frame.defaults= transparent    # set the white color for all toolbars   iscobol.compi
ler.gui.tool_bar.defaults= background-Color rgb x#FFFFFF
             foreground-Color rgb x#000000    # add the flat style to all push buttons
  iscobol.compiler.gui.push_button.defaults=flat     # add the underline style to all e
ntry-fields   iscobol.compiler.gui.entry_field.defaults = border-width (0, 0, 2, 0)
                                            border-color rgb x#DAE1E5
```

The screen is transformed to this more modern looking screen.



Customer

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Address

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Detail

Gender: ● Male ○ Female

Phone number: 619-453-0945

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Online URL: https://support.veryant.com/phpkb/article.php?id=322