# FirePower 5.1

## Woll2Woll Software

Aug 6th, 2015 http://www.woll2woll.com

Supporting RAD Studio versions: XE8

### **Revision History**

http://www.woll2woll.com/firepowerchanges2.html





Our exciting FirePower suite of components allow you to develop applications for Win32, Win64, Mac (OSX32), Android, and iOS devices (32 and 64 bit) and simulators using Embarcadero's RAD Studio XE8. Similar in capabilities to our award winning InfoPower VCL library, our FMX components integrate seamlessly with your existing data and are truly data-aware components.

#### Rapidly build powerful business applications

The FirePower component suite includes the critical and necessary user interface components for building professional desktop and mobile applications using RAD Studio's XE8. In particular those who are building business applications will directly benefit as the controls display your data quickly and in a natural way. FirePower is built from the ground up so that your efficiency, look and feel, and power are not compromised when moving your applications to the mobile space.

#### No compromise when moving to the mobile space

Central to our component suite design are two powerful and flexible grid controls. Our FirePower grid components are designed to be incredibly fast, efficient, powerful, and flexible. They are designed to perform well on desktops, but take great advantage of the mobile interface, giving the end-user a natural experience in style, performance, and ease of use.

#### Suite of versatile user-interface components

Also in FirePower is the TwwRecordViewPanel component giving you a flexible layout component specifically to edit a record. The component dynamically creates an editable panel based on your dataset's field properties. It removes the tedious job of building custom record editing forms, and lets you focus on which fields you want edited and in what order.

There are also an array of edit and input controls included with FirePower that will significantly enhance your application, as well as components to assist your end-users in filtering and searching for data.

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#### Prebuilt applications that use FirePower that you can run right now on your own devices:

Android Demo of FirePower: To install and run the FirePower main demo for Android, go to the Google Play Store and use the keyword InfoPower. Then from your Android device click on the install button. If you wish to see the source for this demo from XE8, see the \Users\Public\Public Documents\FirePower\5.0\demos\MainDemo directory from your computer that you installed FirePower onto.

Demo for FirePower in iOS store at https://itunes.apple.com/us/app/nutrition-diner/id956722401?mt=8

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## 1. FirePower's Masterpiece Grid

Central to our component suite design for FireMonkey is our greatly enhanced data-aware grid which is complemented with a library of other components. Our FirePower grid component is mobile optimized as it is designed to be incredibly responsive and natural for the end-user, and powerful and flexible for the developer. Here are some of the capabilities of this grid.

- **Embed custom controls** such as buttons, combos, checkboxes, switches, lookupcombos, datepickers, and images into the grid. Absolutely no coding required for this. Also you can dynamically determine when custom controls are displayed based on the value of data for that record.
- **Performance**: Data is buffered so that the grid only loads records that it needs to display. This allows for fast grid display that is not crippled by the number of records or columns in the dataset. In fact, our FMX grid rivals in performance to our super-fast VCL grid.
- **Smooth scrolling** The mobile space relies upon touch, acceleration, and momentum for scrolling. The DataGrid implements smooth scrolling using all of these factors giving your mobile apps a natural responsive experience.
- **Clickable column headers** with built-in support for sorting (ascending or descending). The buttons for the column headers are automatically painted in the native style.
- **MultiSelect support:** Allows you to select multiple records with a checkbox or a switch in the grid and operate on them as a whole
- **In-memory support** Use with in-memory datasets such as the TClientDataSet to have a grid display data independent of any physical file.
- **Fixed column support**, including editable fixed columns.
- **Export Data** : Methods to export or email your data to various formats for use with other applications for both the desktop and mobile platforms. Can be used in conjunction with filtering so that only certain records are exported.
- **Codeless Validation constraints**: Supports InfoPower's robust validation languages for enforcing data constraints. The developer can use either picture validation masks or regular expression validation masks. See section 3 below for more information on the validation languages.
- **Flexible design time columns editor:** Our columns designer is significantly enhanced over our VCL counterpart and you'll be able to accomplish even more tasks without any coding.
- **Integrate styles seamlessly** with no effort on your part. Just change the style and the grid recognizes the changes. You can still override the grid's fonts and colors when needed.
- Flexible painting : Customize colors/fonts based on a record or cell basis. Can display custom controls on a record by record basis instead of for every record. Numerous painting options including alternate row colors, highlighting of entire rows. FirePower also has many events for custom drawing of the cells.
- Natural keyboard handling Convert carriage returns to tabs, virtual keyboard supports automatic vertical shifting of edit control for display,
- **Filtering** Use the grid with our new *TwwSearchBox* to get seamless filtering You can automatically allow the text to be searched on one or multiple fields and have the grid highlight the cells that match the text.
- Grids can be used with in-memory data structures : Demos included to show you how you can display, edit, and sort data with in-memory data structures and have the data independent of any physical file.

# 2. Flexible LayoutGrid



FirePower also includes the highly flexible TwwLayoutGrid, which allows you to drop controls into a panel that are repeated vertically, horizontally, or both. This is particularly useful for the mobile space where a more open layout allows the developer to express the user-interface more intuitively. It also allows you to represent your data naturally so that your limited mobile screen real-estate is not consumed. The standard vertical grid may not always be the ideal interface for multi-record display.

FirePower's TwwLayoutGrid allows you:

- Display multiple records in your desired layout.
- Smooth touch scrolling on mobile devices
- Custom painting of each control overriding the painting of controls such as images
- Supports pre-loading of records giving you a remarkable and intuitive user experience when they interact with the control. See the new demos for examples.
- Supports editing
- Displays sharply on retina displays for all records.
- Flexible painting events so that you can customize the look

# 3. Dynamically created data-entry forms

FirePower includes the flexible TwwRecordViewPanel component giving you a flexible layout component specifically to edit multiple fields in a record. The component dynamically creates an editable panel based on your dataset's field properties. It removes the tedious job of building custom record editing forms, and lets you focus on which fields you want edited.

The RecordView is a great time-saver for FireMonkey forms as it adapts to the size of your target device based on your property settings. You can specify a vertical or a horizontal layout of the fields to edit. You can also at design time just drag and drop the fields in the order you want. The component can even dynamically add all the fields in your dataset if you desire, removing the need to manually create data entry forms.

# 4. Superb Validation language

FirePower provides two independent but expressive languages to validate your user's data entry.

• Regular Expression edit masks

A regular expression is a special text string for describing a search pattern. Regular expressions are one of the most powerful ways to define a set of rules, and are widely used across many different programming tools.hat order.

FirePower checks the user's input against regular expressions masks, and allows you to prevent the user from entering invalid data.

As-you-type validation is supported, and the end-user can be visually notified of the validity of their input using the error colors.

## • Picture edit masks

FirePower gives you incredibly flexible and expressive picture masks which greatly assist in automatically validating your user's input. FirePower's masks duplicate the Picture function that's been available in Borland's Paradox relational database product, providing the power of a full mask language instead of just a mask template. Picture masks greatly assists the end-user during data entry by intelligent auto-filling of characters where appropriate as well as informing them if they have incorrectly entered any data. This allows data entry to be faster and easier. Here are some examples of the power of picture masks.



#### Street Address Capitalization

The first letter of each word is automatically capitalized. For instance, if the user enters "235 quinault way", FirePower conveniently converts the input to "235 Quinault Way" as they are typing.

#### Masks which contain optional sequence of characters

Such as an optional zip code suffix in a zip code. If the user does not match the format defined by your mask, you can inform the user visually or prevent the control from losing focus.

## Intelligent auto-filling of characters as the user types

The user's keystrokes can be minimized as the mask language can fill in the static characters. For instance with a SSN mask of ###-##-####, the dashes (-) can be automatically filled in so that the user just needs to type in the numbers.

# 5. Advanced LookupCombo and LookupDialog Controls

FirePower gives you the most flexible component for selecting entries from a lookup datasource. The components are not compromised by smaller form factors in the mobile space, and allow users to quickly lookup and locate the data they want. Here is some of what this powerful component can do.

#### • Quicken style incremental searching Supports the 'Quicken' style display of the matching value, by simultaneously searching and displaying the matching text in the search control.

- **Multiple Columns in the DropDown Box** Select any number of fields to be displayed in the drop-down list along with defining their display width and optional titles.
- Sorting flexibility

The values in the drop-down list are sorted in the order of the first field you select to be displayed, if it's a secondary index field, instead of being sorted in primary key order.

• Embed into FirePower's DataGrid and LayoutGrid components:

The component can be used in a TwwDataGrid component to replace any multiple-choice type of field in the grid, giving your end-users sophisticated lookup and fill capabilities within the grid.

• Use unbound or bound

The component does not have to be bound, or assigned, to a table's field which gives you greater flexibility in using this LookupCombo for general tasks where a source table is not involved.

# 6. Date Control - TwwCalendarEdit

FirePower provides the most flexible and usable CalendarEdit control for Delphi. DateTimePickers support drop-down calendars to assist the user in selecting a date. Embed within FirePower's **DataGrid and LayoutGrid** components.

- Use with or without a database.
- Smart data entry : Auto-advances when enough characters have been entered, and auto-fills the date
- Display the date in the format of your choice using a display format mask. Also supports International date-time formats.
- Integrated with the platform's native date picker on the mobile space



# 7. Advanced Combo Controls (TwwComboEdit, TwwAdvComboEdit)

- Support XE8's new ImageList so that images can be displayed in the combos alongside the text
- Mapped List support so that you can display a descriptive value and store your coded value
- Incremental Searching support as you type
- Embed into FirePower's DataGrid and LayoutGrid
- TwwCheckBox, TwwSwitch for support in FirePower's Grid ControlsT

## 8. Visual Filtering

FirePower has various controls for searching and filtering through your database. The TwwSearchBox can be used on the desktop or on mobile devices and allows you to define one or more fields that are searched through a single edit control. This is particularly useful on the mobile space where desktop space is at a premium. The TwwFilterDialog (currently desktop platforms only) is one of the most useful end-user components as it enables them with the ability to visually filter a dataset, modify the where clause of an existing SQL query.

#### Simple for the end-user to use:

Even though the dialog is capable of sophisticated SQL generation, the dialog is simple to use as it completely hides the filtering and SQL details from the end-user.

- **Unmatched filtering power:** Your end-users can specify a search value, or a range, for any number of fields contained within the dataset.
- WildCard Filtering within Fields
   Select a specific type of data match to be performed within the field, such
  - Select a specific type of data match to be performed within the field, such as "From beginning of field", "Anywhere within the field", and "Exact match".
- Special customizable keywords Specify keywords such as "AND", "OR", "NULL" to specify multiple filter criteria for each field, such as... John OR Paul. FirePower also allows the end-user to easily see all non-matching records.
- Filter memo fields

See <u>http://www.woll2woll.com/Ordering.html</u> for further details on ordering FirePower, and special upgrade pricing.

Note: Due to the anticipated rapid release schedule planned by Embarcadero for Delphi/Rad Studio to support the mobile space, we recommend you purchase one of our maintenance contracts. Woll2Woll will also issue more rapid updates to keep in sync with the changes in Rad Studio. Our maintenance contract will allow you to receive all our major updates for up to one year. You are guaranteed at least one major update.

## Demos

Please review the demos located in your public documents folder under For Rad Studio XE8 - \Users\Public\Public Documents\FirePower\5.0\xe8fmx\demos

## Known issues:

When using the new XE8 multi-device view for any form, and selecting any device for the very first time, first save your form before editing with the FirePower design tools. There is a known issue with the Delphi IDE that can cause access violations if you do not save your form first after selecting the new device. Once you have saved your form, you do not need to repeat this process. If you are using a device that you have edited at any time in the past for this same form, then this is not necessary.

## **Documentation Notes:**

Here are some documentation notes. Please review the various demos included as this should get you started. We will be uploading tutorials soon on youtube to show you how to achieve some common tasks with our new FMX components.

• With the FireMonkey *TwwDataGrid* component you will need to associate it with a *TBindSourceDB* component. This can easily be done by dropping in a *TBindSourceDB* component and assigning its Dataset property, or you can right-

click your dataset at design time and click on the Create TBindSource menu option.

- To customize the columns, dbl-click the grid during design time. To see a quick demo, open up the demos\GridStyles\ProjectGridDemo. This demo also shows how the FirePower FMX DataGrid automatically uses the styles defined and they can be changed dynamically. The demo also uses checkboxes, dynamic buttons, dateCalendarEdits, and a LookupCombo to lookup a zip codes.
- To customize cell control types, dbl-click the grid, select the column, followed by setting the *ControlType* and *ControlAttributes* properties. For instance, if you set the *ControlType* to *gdctCheckbox*, then you can control the checkbox display by setting the *ControlAttributes.Checkbox* properties. Similarly if you wish to add a custom combo list to the column, set the *ControlType* to *gdctCombo*, and the customize the *ControlAttributes.Combo* properties.
- To customize if a control should be painted for a given row, use the *OnUpdateColumnControl* event. See the demo *ProjectGridDemo* for an example of this.
- To customize the fonts/colors for the entire grid, use the grid's *OverrideStyleSetttings* property or change the form's *StyleBook* if you wish to do so globally
- To customize the painting on a cell or record basis, use the *OnCustomDrawCell* or *OnCustomAfterDrawCell* events. This allows you to change the colors, fonts, and text for individual cells based on the value of the related record. See the demo project demos\GridColoring\ProjectCustomPainting
- To enable buttons set the *TitleAttributes.TitleButtons* property to true.
- To enable auto sorting with the title buttons, set *TitleAttributes.Options.sfoSortAscending* and *TitleAttributes.Options.sfoSortDescending* to true.
- To alternate the color of rows in the *TwwDataGrid* based on the colors of the active stylebook, set *Options.dgAlternatingRow* to true
- To convert carriage return to tab automatically in the TwwDataGrid, set KeyOptions.dgEnterToTab to true

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