

TADVTOUCHKEYBOARD DEVELOPERS GUIDE

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Web: <http://www.tmssoftware.com>
Email : info@tmssoftware.com

Overview



TMS touchscreen keyboard components offer TAdvTouchkeyboard & TAdvPopupTouchkeyboard. TAdvTouchkeyboard and TAdvPopupTouchkeyboard are components to display a configurable onscreen keyboard for touch screen applications. The keyboard has built-in settings for QWERTY, AZERTY, DVORAK, NUMERIC, CELLPHONE keyboards but also supports fully customizable keyboard layouts.

Usage

Using TAdvTouchkeyboard is simple. The built-in keyboard layouts can be selected with the property `TAdvTouchkeyboard.KeyboardType` property. Drop the component on the form and when the property `AutoPostKey = true`, it will automatically post the keyvalue for the keyboard key pressed to the active focused control. Alternatively, if it is not desirable to have TAdvTouchkeyboard automatically send keyboard keys, key presses can be handled through the event `OnKeyDown` or `OnKeyClick` event. The `OnKeyDown` event returns the key code and shift state. The `OnKeyClick` event returns the index of the key clicked in the `TAdvTouchkeyboard.Keys` collection.

Special keys such as Shift, Alt, Ctrl, Alt Gr are sticky keys. This means that the first click on the key puts the key in down state and the second click puts the key back in normal state. The sticky behaviour makes it possible to access all key states with single clicks.

TAdvPopupTouchkeyboard works very similar except that it is shown in a popup window. To use TAdvPopupTouchkeyboard, drop it on a form and call `TAdvPopupTouchkeyboard.Show` to show at default position or `TAdvPopupTouchkeyboard.ShowAtXY(x,y)` to show at x,y screen coordinates. TAdvPopupTouchkeyboard has the additional capability that its position can track the edit or memo control that has focus and can automatically display and hide when an edit/memo control has focus or not. To do this, set `TAdvPopupTouchkeyboard.AutoFollowFocus` and `TAdvPopupTouchkeyboard.AutoHide` to true.

Appearance

TAdvTouchkeyboard has many options to control the appearance. The background color is set through the `TAdvTouchkeyboard.Color` property. By default, keys are rounded flat rectangles with a color/bordercolor for normal state and color/bordercolor for down state, set for each key with `TAdvTouchKeyItem.Color`, `TAdvTouchKeyItem.ColorDown`, `TAdvTouchKeyItem.BorderColor`, `TAdvTouchKeyItem.BorderColorDown`. A key can also use a bitmap as background for normal state and down state. This can be set through `TAdvTouchkeyboard.PictureDownState`, `TAdvTouchkeyboard.PictureNormalState`. To use the same background picture sizing for different key sizes, a special bitmap stretching technique is applied. The borders & corners are preserved and the inner of the bitmap is stretched only. Unlike normal physical keyboards, the software touchscreen keyboard can also display keys different for Shift & Alt-Gr states. When `AutoCapsDisplay` is true, the normals key caption

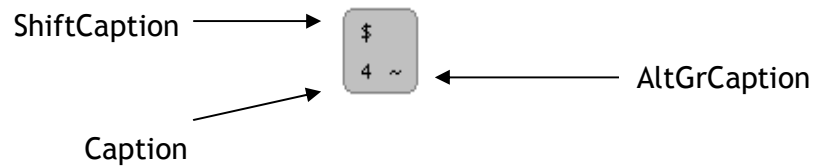
displays either in uppercase or lowercase. When HighlightCaps or HighlightAltGr is a color different from clNone, keys with multiple values depending on Shift or Alt-Gr key state will show the caption in the appropriate color. For example, if the key has the value of Euro currency (€), when Alt-Gr is pressed, the key can show € in a special color set by HighlightAltGr.



Customization

Keyboard layouts can be fully customized with TAdvTouchkeyboard. To allow this, the TAdvTouchkeyboard has a collection of TAdvTouchkeyItem objects that control position, appearance and behaviour of each key on the keyboard. A TAdvTouchKeyItem has following properties:

AltGrCaption : text on the key to display for Alt-Gr combination (bottom right of key)
 AltGrKeyValue : value of key when pressed in combination with Alt-Gr key, default -1
 BorderColor : color of key border in normal state
 BorderColorDown : color of key border in down state
 Caption : text on the key (centered in key)
 Color : color of the key in normal state
 ColorDown : color of the key in down state
 Height : height of the key in pixels
 ImageIndex : index of image in associated TAdvTouchkeyboard imagelist to display on key
 KeyValue : value of key when pressed in normal state, default -1
 PictureDownState : background bitmap of key in down state
 PictureNormalState : background bitmap of key in normal state
 ShiftCaption : text on the key to display for Shift combination (top of key)
 ShiftKeyValue : value of key when pressed in shift state, default -1
 SpecialKey : sets key as special key : Caps, Ctrl, Alt, Alt-Gr, Shift, Enter, Tab, Spacebar, Return, Multiply, Divide, Delete, Subtract, Add, App, Win, Scroll, Num
 TextColor : color of text on key in normal state
 TextColorDown : color of text on key in down state
 Width : width of the key
 X : X position of the key on the keyboard
 Y : Y position of the key on the keyboard



When `SpecialKey` is `skNone`, a key can send values to the keyboard for normal state, shift state and in combination with Alt-Gr key. When `KeyValue`, `ShiftKeyValue`, `AltGrKeyValue` are default - 1, the key that is sent is the first letter of the text for the key state, ie. the first letter of `Caption`, `ShiftCaption`, `AltGrCaption`. When the `KeyValue` property is different from -1, the keyvalue specified is sent. For keys where `SpecialKey` is different from `skNone`, the special key value is automatically sent.

Saving & loading keyboard layouts

Keyboard layouts can be saved & loaded at any time. For this, `TAdvTouchkeyboard` exposes two methods:

```
SaveKeybLayout(FileName: string);  
LoadKeybLayout(FileName: string);
```