

Virtual Terminal Objects translated to Android UI

A guide to deciphering the UI Objects in a standard Virtual Terminal and displaying them effectively in an Android environment with standard objects found in the SDK

One thing to note:

Working Set Object

Layout

Data Mask Object

Layout

Alarm Mask Object

Container Object

Layout

Soft Key Mask Object

Layout

Key Object

Button

Button Object

Button

Input Field Objects

General

Input Boolean

Input String

Input Number

Edit Text

Input List

Output Field Objects

General

Output String

TextView

Output Number

TextVew

Output List

Output Shape Objects

General

Line

Rectangle

Ellipse

Polygon

Output Graphic Objects

General

Meter

Linear Bar Graph

Arched Bar Graph

Picture Graphic Objects

General

Raw Data Format and Compression

[Variable Objects](#)

[General](#)

[Number Variable](#)

[String Variable](#)

[Attribute Objects](#)

[General](#)

[Font Attributes](#)

[Line Attributes](#)

[Fill Attributes](#)

[Input Attributes](#)

[Extended Input Attributes](#)

[Object Pointer Objects](#)

[Macro Objects](#)

[Event Listeners](#)

[Colour Map Objects](#)

[Graphics Context Objects](#)

[Window Mask Objects](#)

[Window Mask Window Type](#)

[Free Form Window](#)

[1 x 1 Numeric Output Value Window, With Units](#)

[1 x 1 Numeric Output Value Window, No Units](#)

[1 x 1 String Output Value Window](#)

[1 x 1 Numeric Input Value Window, With Units](#)

[1 x 1 Numeric Input Value Window, No Units](#)

[1 x 1 String Input Value Window](#)

[1 x 1 Horizontal Linear Bar Graph Window](#)

[1 x 1 Single Button Window](#)

[1 x 1 Double Button Window](#)

[2 x 1 Numeric Output Value Window, With Units](#)

[2 x 1 Numeric Output Value Window, No Units](#)

[2 x 1 String Output Value Window](#)

[2 x 1 Numeric Input Value Window, With Units](#)

[2 x 1 Numeric Input Value Window, No Units](#)

[2 x 1 String Input Value Window](#)

[2 x 1 Horizontal Linear Bar Graph Window](#)

[2 x 1 Single Button Window](#)

[2 x 1 Double Button Window](#)

[Key Group Objects](#)

[Object Label Reference List Object](#)

*Initial Section headers specify the Virtual Terminal Objects defined by Appendix B in the ISO Virtual Terminal documentation. The information inside each section specifies the relationships the VT objects have to Android and how to best translate those into desirable Android objects. API references are included with each Android object**

One thing to note:

Android by default uses an ID convention that is created during compile time. No standard ID's can be created during runtime. One way around this is through the 'tag' variable associated with each View. 'Tags' can be set during runtime and can then be used to access View's later on. This is not a preferred method however though and will be considered more of an experimental approach to using ID's for this project.

Android User Interface Documentation:

<http://developer.android.com/guide/topics/ui/index.html>

1. Working Set Object

1.1. Layout

1.1.1. RelativeLayout, FrameLayout, LinearLayout, etc

1.1.2. <http://developer.android.com/guide/topics/ui/declaring-layout.html>

1.1.3. Root view

2. Data Mask Object

2.1. Layout

2.1.1. RelativeLayout, FrameLayout, LinearLayout, etc

2.1.2. <http://developer.android.com/guide/topics/ui/declaring-layout.html>

2.1.3. Can have multiple

3. Alarm Mask Object

4. Container Object

4.1. Layout

4.1.1. RelativeLayout, FrameLayout, LinearLayout, etc

4.1.2. <http://developer.android.com/guide/topics/ui/declaring-layout.html>

4.1.3. Consider using Fragments, since many can contain the same objects

5. Soft Key Mask Object

5.1. Layout

5.1.1. RelativeLayout, FrameLayout, LinearLayout, etc

5.1.2. <http://developer.android.com/guide/topics/ui/declaring-layout.html>

5.1.3. Set to Left/Right of Data Mask

6. Key Object

6.1. Button

6.1.1. <http://developer.android.com/guide/topics/ui/controls/button.html>

7. Button Object

7.1. Button

7.1.1. <http://developer.android.com/guide/topics/ui/controls/button.html>

8. Input Field Objects

8.1. General

8.2. Input Boolean

8.3. Input String

8.4. Input Number

8.4.1. Edit Text

8.4.1.1. <http://developer.android.com/guide/topics/ui/controls/text.html>

8.4.1.2. `inputType = number`

8.5. Input List

9. Output Field Objects

9.1. General

9.1.1. To display any outputted field, we will use TextView. Its the most basic form of a text box area that is fully customizable.

9.2. Output String

9.2.1. TextView

9.2.1.1. <http://developer.android.com/reference/android/widget/TextView.html>

9.3. Output Number

9.3.1. TextVew

9.3.1.1. <http://developer.android.com/reference/android/widget/TextView.html>

- 9.4. Output List
- 10. Output Shape Objects
 - 10.1. General
 - 10.2. Line
 - 10.3. Rectangle
 - 10.4. Ellipse
 - 10.5. Polygon
- 11. Output Graphic Objects
 - 11.1. General
 - 11.2. Meter
 - 11.3. Linear Bar Graph
 - 11.4. Arched Bar Graph
- 12. Picture Graphic Objects
 - 12.1. General
 - 12.2. Raw Data Format and Compression
- 13. Variable Objects
 - 13.1. General
 - 13.2. Number Variable
 - 13.3. String Variable
- 14. Attribute Objects
 - 14.1. General
 - 14.2. Font Attributes
 - 14.3. Line Attributes
 - 14.4. Fill Attributes
 - 14.5. Input Attributes
 - 14.6. Extended Input Attributes
- 15. Object Pointer Objects
- 16. Macro Objects
 - 16.1. Event Listeners
 - 16.1.1. <http://developer.android.com/guide/topics/ui/ui-events.html>
 - 16.1.2. Note: Not all Macro's are direct changes to UI, some effect local variables which in turn should then update the UI.

17. Colour Map Objects

18. Graphics Context Objects

19. Window Mask Objects

19.1. Window Mask Window Type

19.1.1. Free Form Window

19.1.2. 1 x 1 Numeric Output Value Window, With Units

19.1.3. 1 x 1 Numeric Output Value Window, No Units

19.1.4. 1 x 1 String Output Value Window

19.1.5. 1 x 1 Numeric Input Value Window, With Units

19.1.6. 1 x 1 Numeric Input Value Window, No Units

19.1.7. 1 x 1 String Input Value Window

19.1.8. 1 x 1 Horizontal Linear Bar Graph Window

19.1.9. 1 x 1 Single Button Window

19.1.10. 1 x 1 Double Button Window

19.1.11. 2 x 1 Numeric Output Value Window, With Units

19.1.12. 2 x 1 Numeric Output Value Window, No Units

19.1.13. 2 x 1 String Output Value Window

19.1.14. 2 x 1 Numeric Input Value Window, With Units

19.1.15. 2 x 1 Numeric Input Value Window, No Units

19.1.16. 2 x 1 String Input Value Window

19.1.17. 2 x 1 Horizontal Linear Bar Graph Window

19.1.18. 2 x 1 Single Button Window

19.1.19. 2 x 1 Double Button Window

20. Key Group Objects

21. Object Label Reference List Object

* Unless otherwise noted, all links reference specific API documentation from the Android Library, However there might be instances where an Android object is not standard and an outside library will be used in its place. In those circumstances the link to the Repository of the library are included, and if possible a link to its hosting on the Central Maven Repository.