



Android

Screen

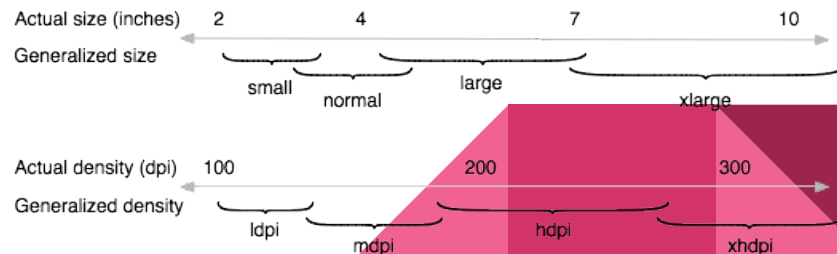
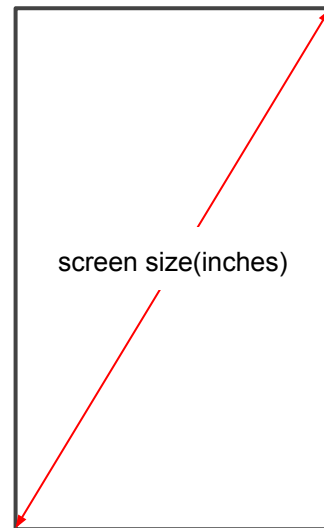
용어

- Screen Size
- Screen Density
- Orientation
- Resolution
- Density-Independent Pixel(dip, dp)
- Scale-Independent Pixel(sip, sp)



Screen Size, Screen Density

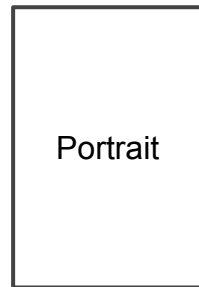
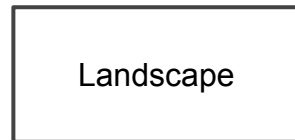
- **Screen Size:** 실제 화면의 대각선 길이
 - small
 - normal
 - large
 - extra-large
- **Screen Density:** 화면의 pixel 밀도, 단위: dpi(dots per inch)
 - low(ldpi) ~ 120dpi
 - medium(mdpi) ~ 160dpi
 - high(hdpi) ~ 320dpi
 - extra-high(xhdpi) ~ 240dpi
 - extra-extra-high(xxhdpi) ~ 320dpi
 - extra-extra-extra-high(xxxhdpi) ~ 640dpi



Orientation, Resolution

- Orientation: 화면의 방향

- Landscape
- Portrait



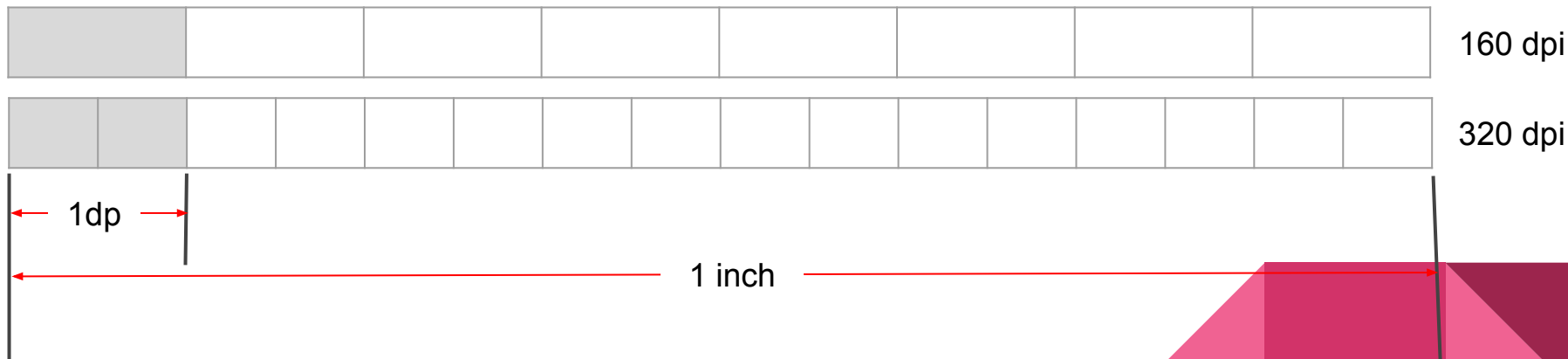
- Resolution: 화면 해상도(스크린에 있는 물리적인 픽셀들의 수)

- QVGA: 240x320
- HVGA: 320x480
- WVGA: 480x800
- WXGA: 720x1280
- SXGA: 1024x1280
- HD: 768x1360
- FHD: 1080x1920
- QHD: 1440x2560



Density-Independent Pixel (dp, dip)

- Density-Independent Pixel
 - $1\text{dp} = 160\text{dpi}$ 스크린에서 1px
 - $\text{px} = \text{dp} * (\text{dpi} / 160)$
 - $\text{dp} = \text{px} * (160 / \text{dpi})$



Density-Independent Pixel (dp, dip)

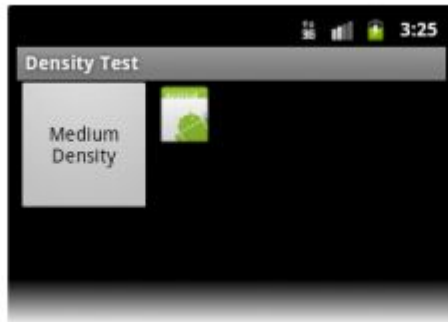
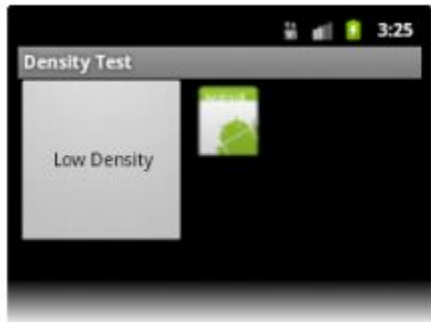


그림 1. px 단위로 레이아웃을 작성했을 때

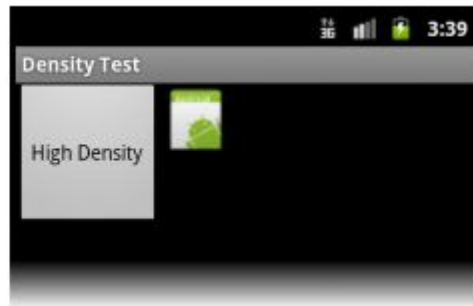
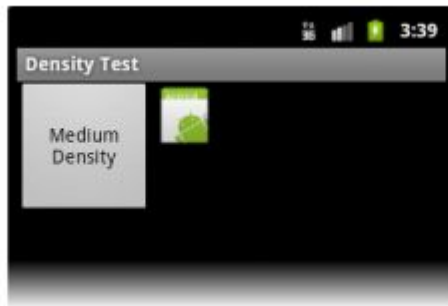


그림 2. dp 단위로 레이아웃을 작성했을 때

Scale-Independent Pixel (sp, sip)

- Scale-Independent Pixel (sp, sip)
 - 폰트 크기를 결정할 때 사용하는, 화면 스케일과 무관한 단위
 - 대략 1dp의 크기와 비슷
 - 사용자(디바이스)의 폰트 크기 설정에 따라 **scale factor**가 적용됨



dip, sip 사용 예



hdpi 화면



xhdpi 화면