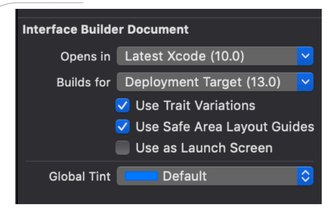
하나의 스토리보드로 여러 플랫폼의 UI를 동시에 적용할 수 있을까?

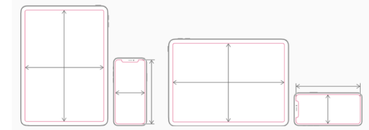
- reference
  - Adaptive Layout Tutorial
    - ray
  - iOS How-to — Add Adaptive constraints to support a Universal App
    - medium
  - 스토리보드 에서 기기별 폰트 사이즈 지정하기 및 기타
    - stack overflow
  - WWDC 2016 Making Apps Adaptive
    - part 1
    - part 2
- Universal storyboard
  - Trait variations



- Adaptive layout
  - A core concept of an adaptive layout is that you can differentiate size classes from device-specific characteristics.
  - Size classes are traits that are automatically assigned to content areas based on their size.
  - Size class

	Vertical Size Class	Horizontal Size Class
iPad Portrait	Regular	Regular
iPad Landscape	Regular	Regular
iPhone Portrait	Regular	Compact
iPhone Landscape	Compact	Compact
iPhone 6 Plus Landscape	Compact	Regular

    - Regular
      - denotes expansive space)
    - Compact
      - denotes constrained space
    - 스토리보드에서 명명법 모순
      - width — horizontal
      - height — vertical
  - Human Interface Guidelines
    - Device Size Classes



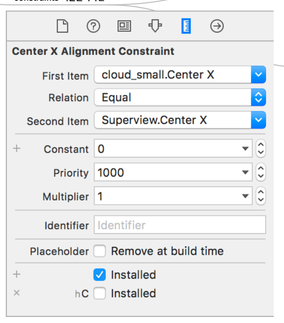
Device	Portrait orientation	Landscape orientation
12.9" iPad Pro	Regular width, regular height	Regular width, regular height
11" iPad Pro	Regular width, regular height	Regular width, regular height
10.5" iPad Pro	Regular width, regular height	Regular width, regular height
9.7" iPad	Regular width, regular height	Regular width, regular height
7.9" iPad mini 4	Regular width, regular height	Regular width, regular height
iPhone Xs Max	Compact width, regular height	Regular width, compact height
iPhone Xs	Compact width, regular height	Compact width, compact height
iPhone Xʀ	Compact width, regular height	Regular width, compact height
iPhone X	Compact width, regular height	Compact width, compact height
iPhone 8 Plus	Compact width, regular height	Regular width, compact height
iPhone 8	Compact width, regular height	Compact width, compact height
iPhone 7 Plus	Compact width, regular height	Regular width, compact height
iPhone 7	Compact width, regular height	Compact width, compact height
iPhone 6s Plus	Compact width, regular height	Regular width, compact height
iPhone 6s	Compact width, regular height	Compact width, compact height
iPhone SE	Compact width, regular height	Compact width, compact height

    - Multitasking Size Classes

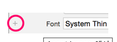
Device	Mode	Portrait orientation	Landscape orientation
12.9" iPad Pro	2/3 split view	Compact width, regular height	Regular width, regular height
	1/2 split view	N/A	Regular width, regular height
	1/3 split view	Compact width, regular height	Compact width, regular height
11" iPad Pro	2/3 split view	Compact width, regular height	Regular width, regular height
	1/2 split view	N/A	Compact width, regular height
	1/3 split view	Compact width, regular height	Compact width, regular height
10.5" iPad Pro	2/3 split view	Compact width, regular height	Regular width, regular height
	1/2 split view	N/A	Compact width, regular height
	1/3 split view	Compact width, regular height	Compact width, regular height
9.7" iPad	2/3 split view	Compact width, regular height	Regular width, regular height
	1/2 split view	N/A	Compact width, regular height
	1/3 split view	Compact width, regular height	Compact width, regular height
7.9" iPad mini 4	2/3 split view	Compact width, regular height	Regular width, regular height
	1/2 split view	N/A	Compact width, regular height
	1/3 split view	Compact width, regular height	Compact width, regular height

  - 구현하기
    - Vary for Traits
      - working on a size-class-specific layout.

    - 일시적으로 constraints를 해제해서 차이를 볼 수 있다.
      - In Auto Layout terminology, this is known as installing and uninstalling constraints.
        - An installed constraint is currently active
        - an uninstalled constraint is not active within the current size class
    - constraints 더블클릭하면
      - This indicates that you've installed the constraint for the base layout



      - 현재 사이즈 클래스에서 작업중인 Compact Height layout 은 installed 체크 안되있는거 볼 수 있음
  - 사용 가능한 범위
    - 수정 가능한 범위
      - Font and Size



      - Image view
      - image
        - Asset image 에서
      - button
      - Drawing 속성
        - Hidden
      - UIView 의 존재
        - 특정 사이즈에서 존재하는 뷰와 그렇지 않은 뷰
          - Adaptive layout 을 적용하고 난 후부터는 UIView 를 추가할 때 특정 Size 에 대한 install 이 default가 된다.
    - 수정 불가능한 범위
      - 텍스트
        - 라벨의 텍스트, 버튼의 타이틀 등
  - Conclusion
    - 따라서 지금 우리가 할 수 있는 게 무엇이냐
    - Base layout 선택
      - Wiz Live 같은 경우 iPad가 중심이 되므로 base layout 으로 iPad 를 선택하는 것이 좋겠다.
    - 수정할 수 있는 범위를 정확히 파악
      - iPad, iPhone에서 공동으로 사용될 객체와 다르게 사용될 객체를 파악하고 분류하는 작업
    - 디자인 팀에게 디바이스에 대응하는 디자인 요청
      - iPad 용, iPhone 용