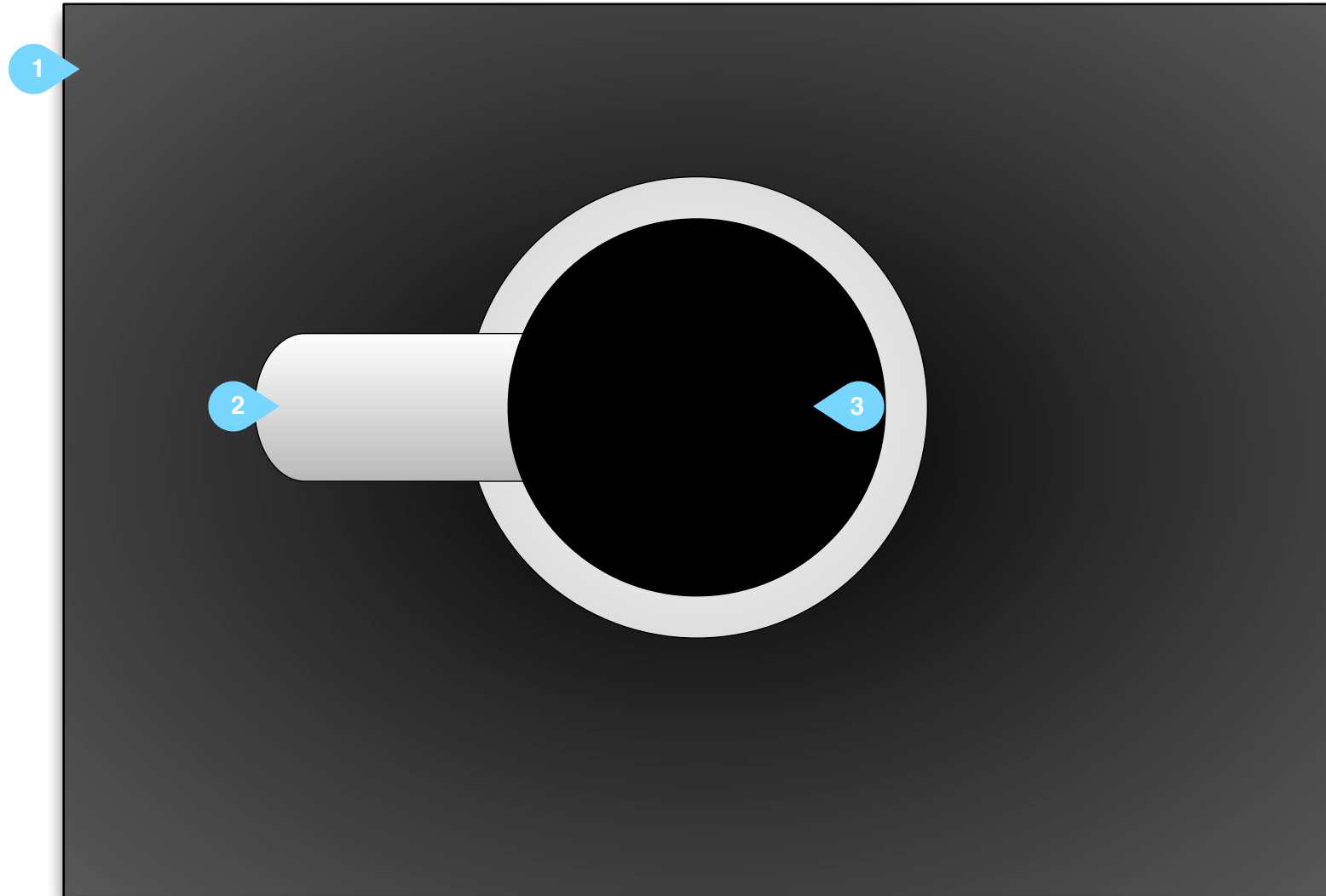


Tabletop Interaction Lab

S.M.A.R.T.T.
TUI Gesture Design

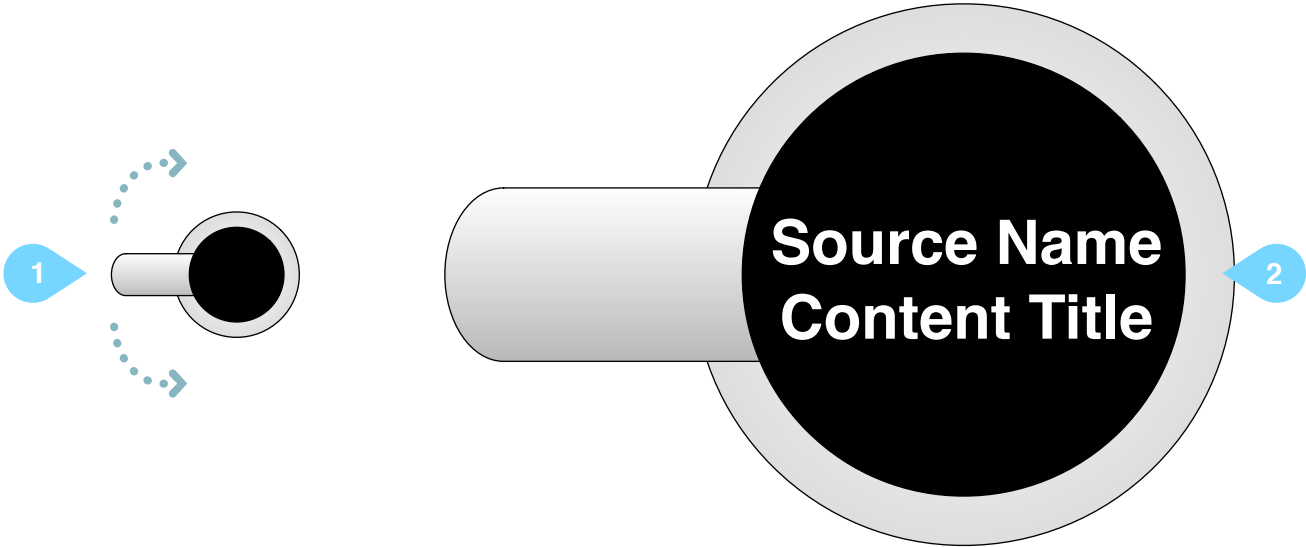
Thu Dec 01 2011

Allen Smith
Christian Klinton



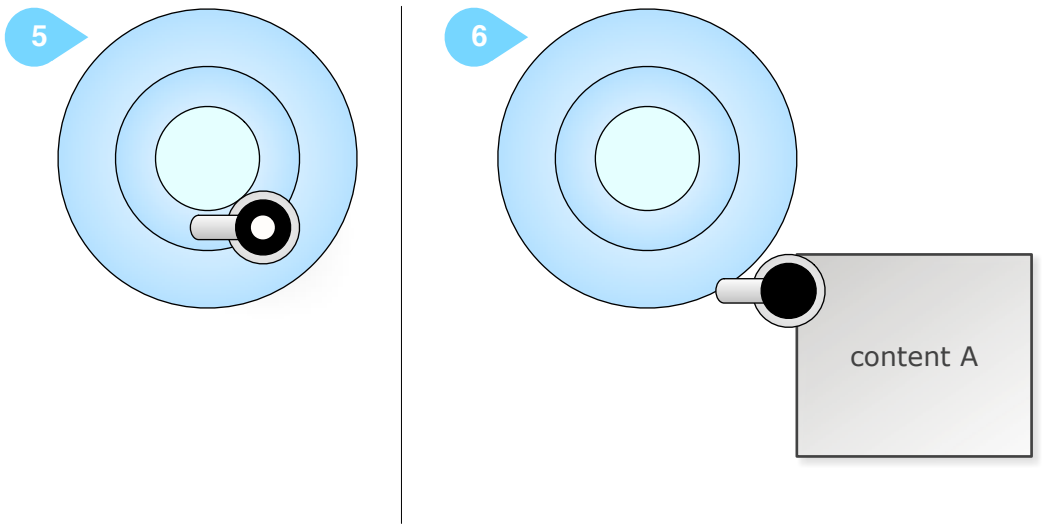
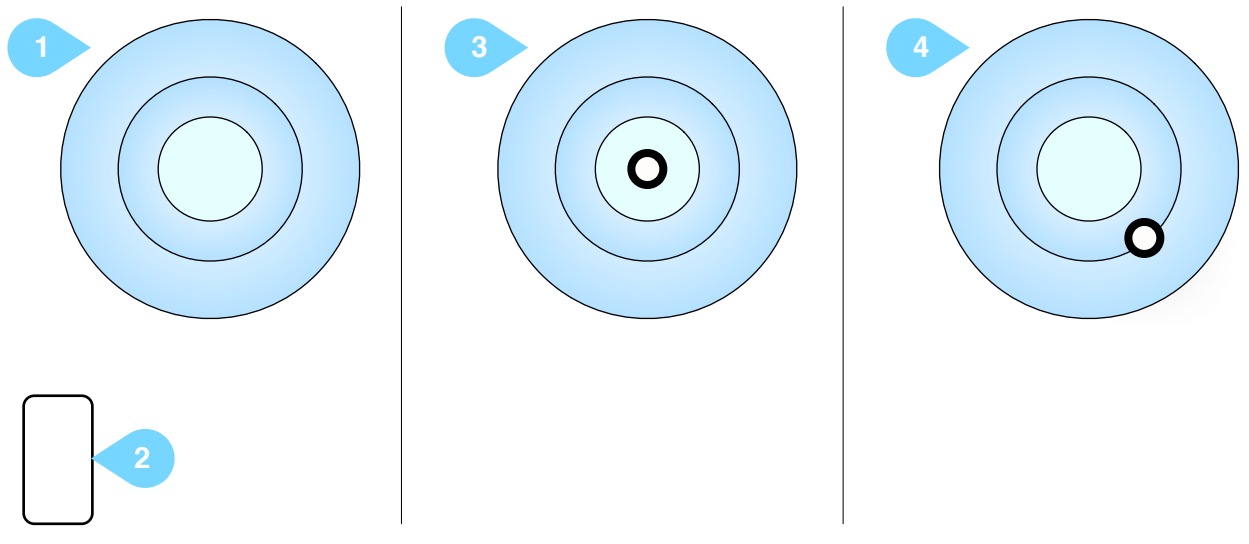
- 1 Microsoft Surface multitouch tabletop.
- 2 TUI handle. User can grasp to move and orient content.
- 3 TUI loop is hollow and represents the pivot point around which the content is oriented as well as a metadata display for the content.

- 1 TUI can be rotated.
- 2 Hollow section of TUI can be used to display content metadata (e.g., source names, images, video, etc.).



Assign Content

Details

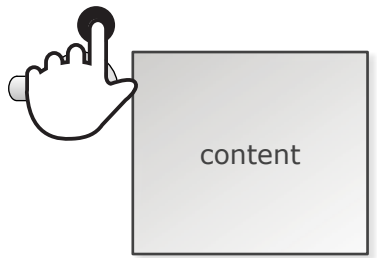


- 1 Content portal.
- 2 Smartphone is synched via NFC.
- 3 Content from smartphone emerges in the center of the content portal. Its form is a circle with service name and content title.
- 4 Once the content emerges it begins drifting out of the content portal.
- 5 The user can capture this content with the token by placing the token's hollow center over the content. The content is designed in such a way as to allow it to fit within the hollow section of the token.
- 6 Once captured, the content is fully opened and displayed on the surface. Additionally, it is paired with the TUI and will respond to movement and re-orientation.

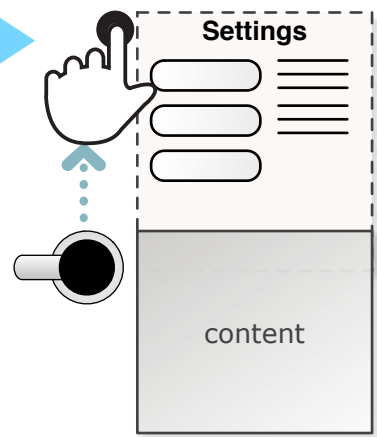
Reveal Contextual Menu

Details

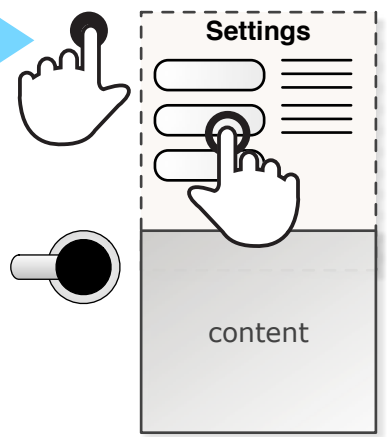
1



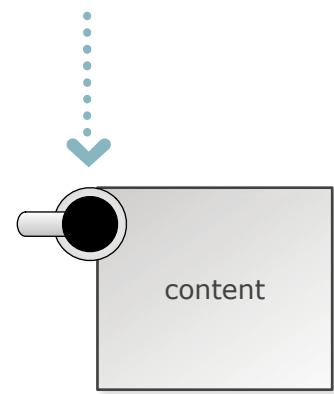
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3



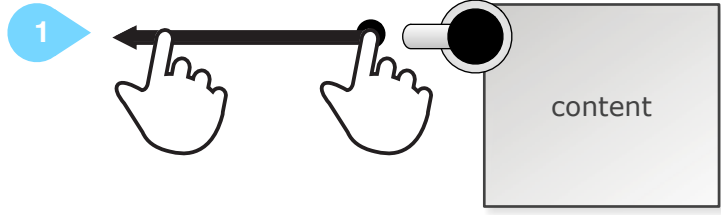
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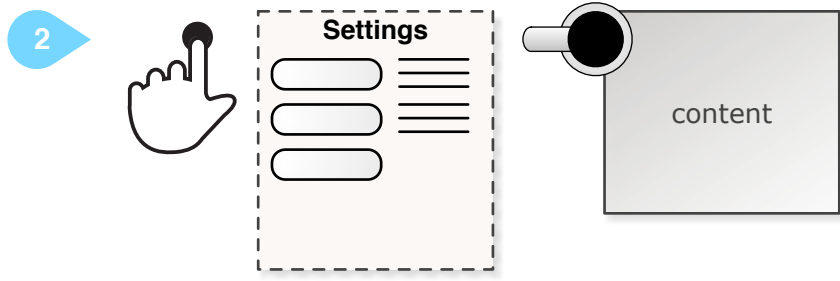
- 1 User press and holds underneath TUI for 3 seconds.
- 2 While still pressing the user slides the TUI upward to reveal a contextual menu (e.g., Settings).
- 3 Once the menu is open, the user can remove their hand and the menu will persist. This menu may have touch controls which can be used at this time.
- 4 To close the menu, the user slides the TUI back to its approximate original position.

Reveal Contextual Menu

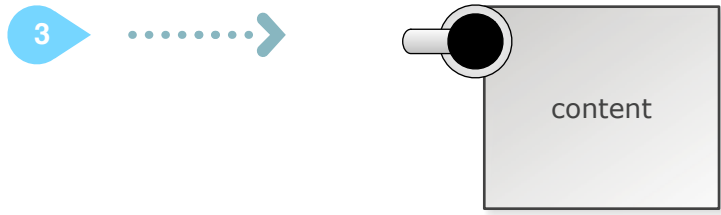
Details



- 1 User presses and drags away from the token.
- 2 With the finger still pressed on the table, a contextual menu appears.

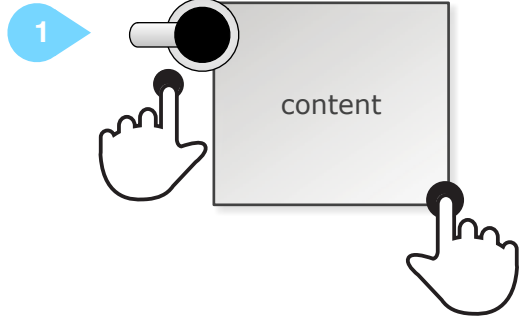


- 3 The user releases the finger from the tabletop in order to close the menu.

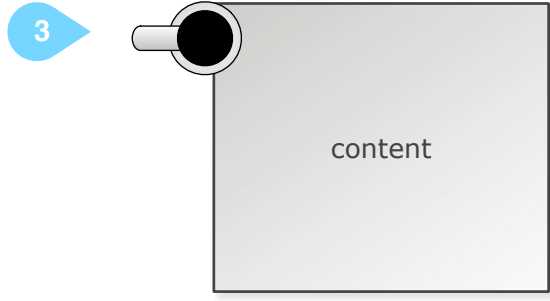
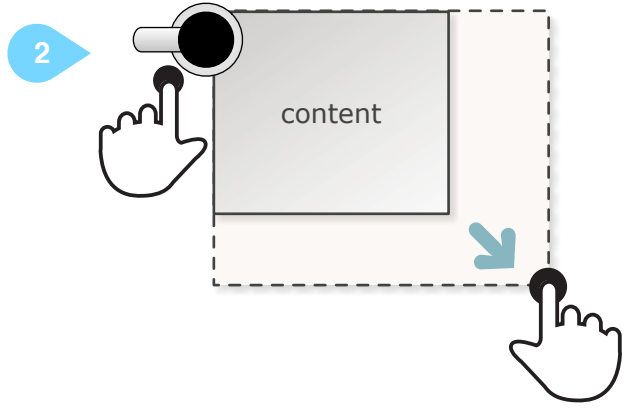


Scale Content

Details

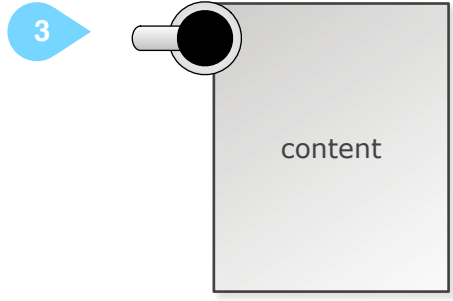
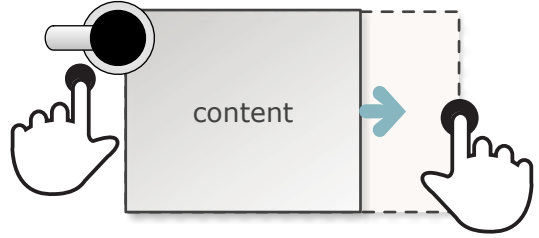
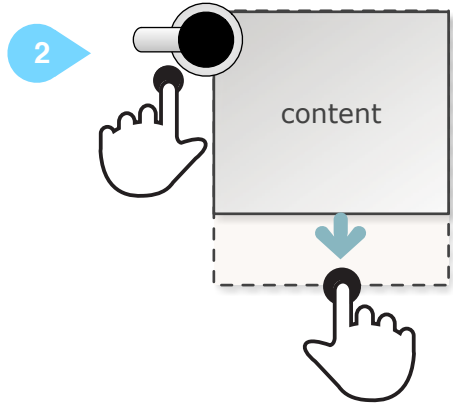
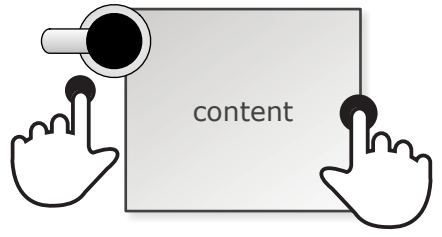
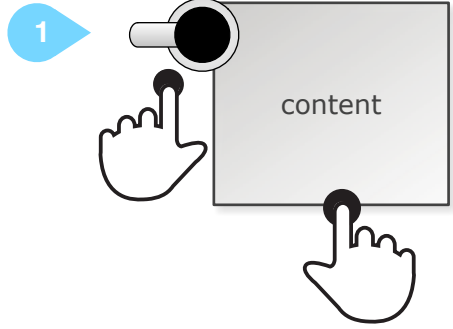


- 1 User presses and holds underneath the token while also pressing on the opposite corner of the content.
- 2 While keeping the press and hold underneath the token, the user can move the content corner out to scale the content.
- 3 User releases both positions to set the new content size.



Resize Content

Details

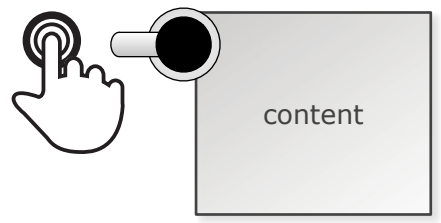


- 1 User presses and holds underneath the token while also pressing on the bottom or opposite side of the content.
- 2 While keeping the press and hold underneath the token, the user can move down or to the side in order to expand it along either axis.
- 3 User releases both positions to set the new content size.

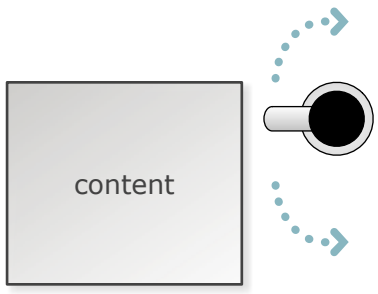
Reorient Content

Details

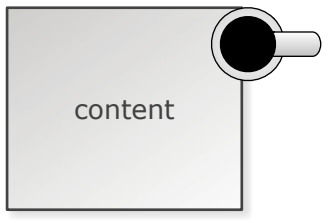
1



2



3

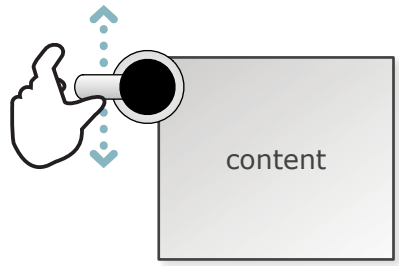


- 1 User double taps next to the TUI.
- 2 Content will target the double tap location and move.
- 3 TUI can now be rotated 180° and used with the opposite hand.

Quick Delete Content

Details

1



2sec

2



2sec

3

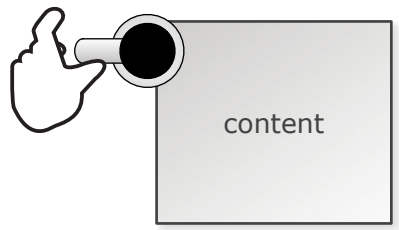


- 1 User shakes TUI on tabletop and lifts from surface.
- 2 Content quickly fades from the tabletop.
- 3 Within 3 seconds the content is no longer visible on screen.

Slow Delete Content

Details

1



2



3

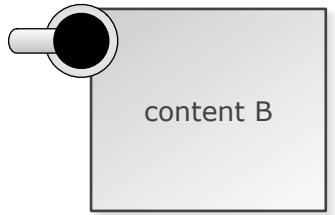
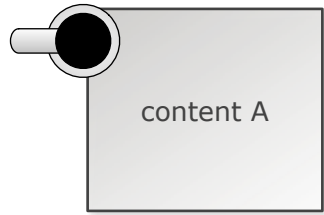


- 1 User removes TUI from surface.
- 2 Content slowly fades from the tabletop.
- 3 Within 4 minutes the content is no longer visible on screen.

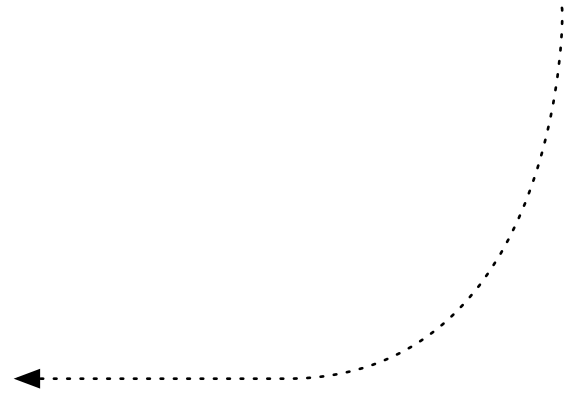
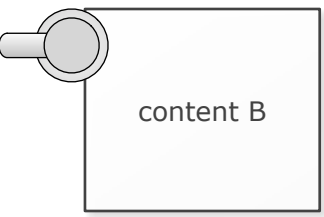
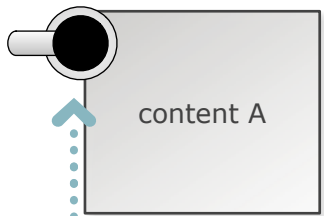
Sharing Content

Details

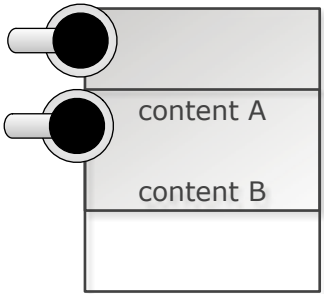
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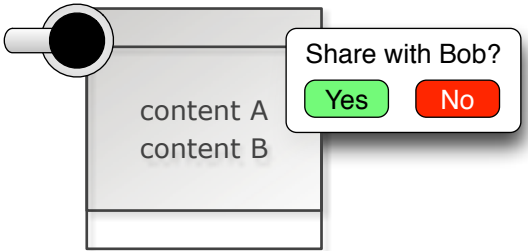
2



3



4



- 1 Two users with two separate content items.
- 2 User B moves the TUI to a position below User A, and then starts sliding the content up toward it.
- 3 User B continues to move the TUI up till it meets TUI A and the content is overlapping. By removing TUI B from the table a prompt is invoked to ask user B if he would like to share this content with user A.
- 4 Sharing dialog confirmation.

End