Visual	Interaction	Uses	Transition	Location on Screen
	(Transition only)	Used to reveal a new screen with details pertaining to the current screen, as well as returning to a broader view. Ex: Tapping a television program from the grid to reveal the detail page for that program uses the flip transition clockwise. Then, returning to the grid view uses the flip transition again but going counter clockwise.	Three-dimensional spin from right to left (accessing details) and left to right (returning to broader view)	N/A
	(Indicator only)	Used to depict an item that's currently selected in a list. Ex: Indicating which synchronization setting (15 mins, 30 mins, etc) is currently selected.	N/A	In a list view where each item has no supplementary screens (indicated by a right- facing arrow), the check mark appears to the right of the list item; otherwise the check mark appears to the left.
	Tilt iPhone in appropriate direction	Used when usability or 'fun factor' can be increased through imprecise maneuvering of iPhone in real physical space. Should not be used in situations where precise control is necessary. Also must use extreme caution to avoid confusing mode changes; should not be used as a main user interface element.	N/A	N/A
	Tap and hold to drag	Used to indicate that items in a list or grid can be re-ordered by tapping the indicator and dragging to a new location.	Item is dragged around the screen within the parameters established by the screen (e.g. movement is only vertical in a list)	N/A

Visual	Interaction	Uses	Transition	Location on Screen
Q ABCDEFVWXYZ#	Tap a specific letter.	Used to quickly jump to specific points in very long lists (Television programs, contacts, etc).	The screen scrolls quickly to the point indicated by where the user tapped on the strip.	Varies
ON	Swipe left or right to turn on or off.	Used for functions that can be turned on or off, or activated or deactivated.	Switch slides horizontally left or right.	Varies, but usually to the right of items in a list.
Updated: 10/31/08 10:31	N/A	Used to indicate that a particular service has been updated and provides the time and date of last update.	Text changes to "updating" while in the process of updating.	Varies, but usually at the bottom of the screen.
The EPG EPG	Flick left or right to scroll between items; also by physically tilting the phone	Used as a primary means of visually navigating large data sets. Could be used to browse contacts by picture or to browse OTT modules.	3D animation showing elements moving from left to right or right to left, similar to scrolling through albums in a juke box.	Usually takes up the entire screen.

Complementarity

It's important for the interface to be consistent in look and feel, especially when transitioning from screen to screen. For this reason, it's imperative that an action which results in a right to left transition (going forward) be complemented with a left to right transition when returning to the previous screen. This preserves the impression of motion through the interface, and drastically increases a user's sense of place within the application; and reduces instances of getting lost within the UI. The same issues apply with a forward flip transition (right to left) being complemented by a backwards flip (left to right), and a "slide up" countered by a "slide down".

Looping

Lists of items should never loop. Scrolling quickly to the bottom of a list should automatically stop scrolling at the last item of the list as opposed to returning to the top of the list as in a loop. The same is true for horizontal transitions left and right; scrolling all the way to the right should not loop back to the beginning on the left.

Status Bar

As has become a common convention among iPhone apps (both native and 3rd party); users should be able to scroll immediately to the top of any list of items by tapping the status bar at the very top of the screen (the status bar occupies the upper 20 pixels of the display).

Keyboard

The iPhone has different keyboard layouts for different purposes. For instance, the "internet" keyboard has a period, a slash, and a ".com" key. The "email address" keyboard has an "@" sign and a period. For the OTT application, depending on the information requested in a specific field, the appropriate keyboard should be used.

Text Fields

Whenever a user taps a text field, or arrives on a page where the primary (or only) action is to enter text into a field, a cursor should automatically be placed in the text field as the keyboard appears, so the user may begin typing immediately.

Pinching to Zoom

Users should be able to utilize the iPhone UI standard "pinch" and "push" to zoom out and in when viewing images or text that have been scaled to fit the screen. Specifically with text, any time the user is presented with a large body of text that is not editable (such as a program description or an incoming email), he should be able to zoom in or out on the text by using these gestures. When zooming in, users should be able to zoom in as far as the iPhone OS will allow them, when

zooming out, users should be able to zoom out just far enough to see the entire body of text on the screen at one time.

Cancel Button

In all cases, a "Cancel" button should dismiss the current dialogue; exit the current mode, or revert to the previous screen, while taking no action on the information on the current screen.

Auto Completion

In situations where the user is entering text that can be predicted or that is predicated on a set of data, this information should be presented below the text box as the user types. For instance, typing the name of a contact should display any contacts whose information matches what's being typed, in real time as the user types it.

Missing Modules

In some cases there may be functions that make use of specific modules that a user does not have (for instance: sending a link to a video in The Fan from a user who does not have Comcast High Speed Internet, and thus no email account in their OTT Inbox (only voicemail). In this case, the OTT application should simply call the native version of that module (native Mail application, Address Book, etc) to perform the function. If the specific module has no native analogue, then (and only then) a message should alert the user that the specific feature is only available to those who have the service in question. From there, a link may be provided to acquire the necessary service.

Portrait vs Landscape

Some modules will have specific information presented in portrait mode as well as in landscape mode. In these cases, the user must physically rotate the phone to experience the new information. This happens automatically when the phone is rotated. If there is nothing to be displayed in a particular orientation, then rotating the phone in that orientation will have no effect.

Search Results

Search results should be predicated on the search terms as they're entered by the user. Specifically, the results should be based on exact matches of word or letter strings, with priority given to those strings which occur at the beginnings of words.

For example, searching for "ch" would yield the result "Charlie Brown" and "Dominic Chester" before the result of "Archie Griffin" If more than one result is a direct match at the beginning of a word (first word or subsequent words), results should be listed alphabetically.

Users will be automatically notified of messages that arrive when the OTT application is open as well as when it's closed. In version 1 of the OTT application, messages include new emails, voicemails, and reminders from The Guide.

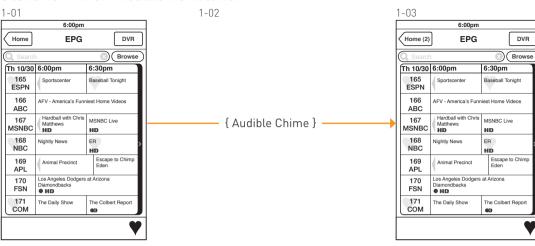
If a user is in another module when a new email or voicemail arrives, a chime will sound. At the same time, the home button in the top left corner will have an indicator (2) of the number of new messages across all modules. When the user taps this to go back to the Start Page, a numbered badge on the module will indicate the number of new messages for that module. Users can then tap the module to access the new messages.

If the user is using the same module in which a new message arrives, they will hear a chime and see a numbered indicator on the button that links back to the main screen (inbox or CDV voicemail screen). Tapping that button will display the new messages.

The exception to this rule is reminders from The Guide. These reminders will manifest themselves as pop-up dialogues regardless of which module the user is using, or even if they're using the OTT app at all.

Users can turn off the audible chime in the Settings module.

Scenario1: Inter-module Notification



User is browsing TV listings in The Guide.

User is reading an email in

their inbox.

A new email and voicemail arrive.

"Home" button indicates there are two new messages.

DVR

User taps the "Home" button to go to the Start Page.

User taps the "Inbox"

button to go to the Inbox

6:00pm

EPG

AFV - America's Funniest Home Videos

Hardball with Chris MSNBC Live

os Angeles Dodgers at Arizona

Nightly News

Animal Precinct

Diamondhacke

The Daily Show

副

ESPN

ABC

167

MSNBC

168

NBC

169

APL

170

FSN

COM

DVR

Browse

6:30pm

Baseball Tonight

Escape to Chimp

The Colbert Report



On the Start Page, new messages are shown by module.

Edit

Date >

6:00 PM

8:32 AM

Vesterday

11:38 PM

Yesterday

10:18 PM

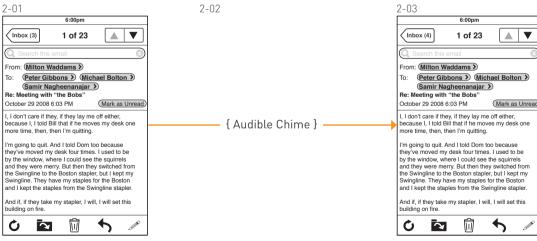
Vesterday

7:10 PM

Yesterday

6:03 PM

Scenario 2: Intra-module Notification



A new email arrives.

"Inbox" button indicates there are now 4 new messages.

2-05 6:00pm Inbox: All (4) 1 of 23 Home n Waddams > Sorted by: er Gibbons > (Michael Bolton > Charlie Brown Samir Nagheenanajar >) Baseball Practice time change Re: Meeting with "the Bobs" October 29 2008 6:03 PM Mark as Unread John Smith Re: Meeting with "the Bobs" , I don't care if they, if they lay me off either, because I, I told Bill that if he moves my desk one Josie Farris more time, then, then I'm quitting, TPS Reports I'm going to guit. And I told Dom too because Nigel Burns they've moved my desk four times. I used to be 0:22 (sent to 222-222-2222) by the window, where I could see the squirrels and they were merry. But then they switched from Michael Trombley the Swingline to the Boston stapler, but I kept my Leaving Initech.. Swingline. They have my staples for the Boston and I kept the staples from the Swingline stapler Jessica Spencer Re: Meeting with "the Bobs' And if, if they take my stapler, I will, I will set this building on fire. \mathbf{a} Updated: 10/30/08 10:12am

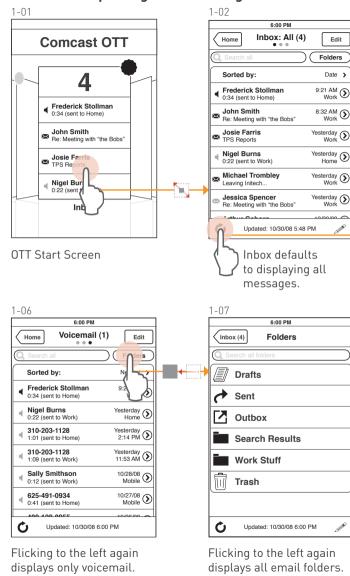
> In the Inbox, the new message appears at the top.

The Inbox can be updated (or refreshed) at any time by the user. This is in addition to the automatic refresh options as set in the main settings section of the OTT application.

General navigation allows the user to swipe left and right to switch between a unified inbox view, email only view, voicemail only view, and all available email folders.

In this module, users will not be able to use the "swipe to delete" option which allows them to swipe on an item in a list and reveal a delete button for deleting that particular item.

Scenario 1: Updating Inbox & Navigation



1-03 Inbox: All (4) Home Edit Folders Sorted by: Date > Frederick Stollman 9:21 AM Work 0:34 (sent to Home) John Smith

Be: Meeting with "the Bobs' 8:32 AM (**3**) Josie Farris
TPS Reports Yesterday Work Nigel Burns Yesterday Home 0:22 (sent to Work) Michael Trombley Yesterday Work Leaving Initech.. Jessica Spencer Yesterday Work Re: Meeting with "the Bobs' 0 Updating..

When an update is in progress, the icon spins clockwise and the bottom text reads: "Updating..."



text reflects the current

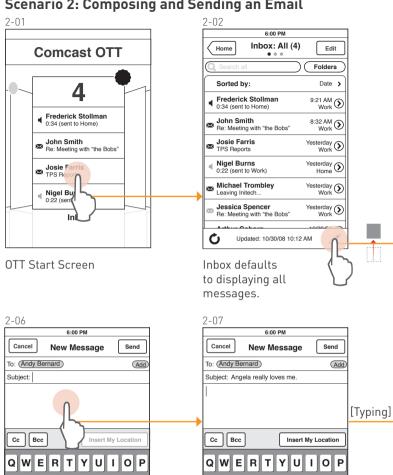
time. Updating is not a

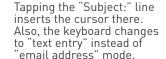
blocking process.

Flicking to the left displays only email.

Users have available a compose button on most pages from where they can initiate a new email.

Scenario 2: Composing and Sending an Email





ASDFGHJKL

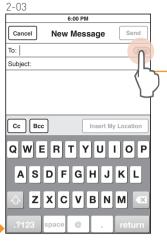
ZXCVBNM

space

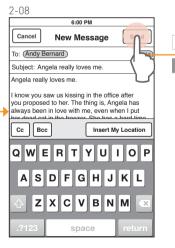
Tapping in the main body area inserts the cursor there.

ASDFGHJKL

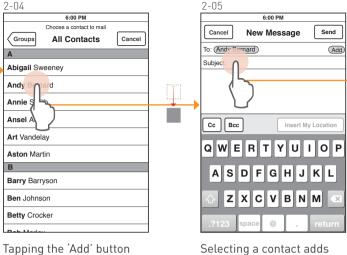
ZXCVBNM



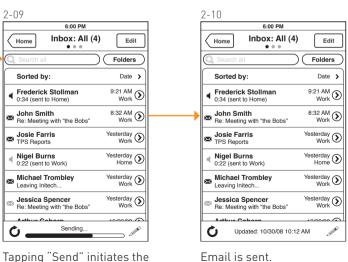
Compose screen loads with a cursor in the "To:" field. "Send" is greyed out until the email can be sent.



Tapping in the main body area inserts the cursor there.



Selecting a contact adds displays a list of contacts it to the "To:" field and from the Address Book enables the "Send" button.



module (within OTT).

send process; an indicator

appears at the bottom of

the screen.

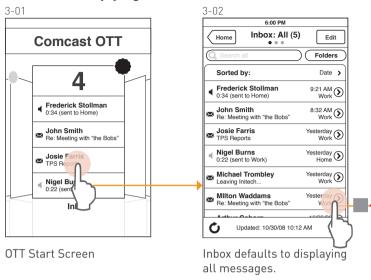
Email is sent.

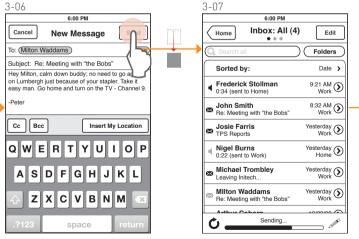
Users have the option of Replying to one, replying to all, or forwarding an email.

[Typing]

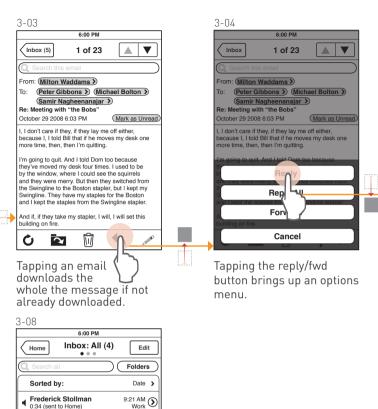
User types his reply.

Scenario 3: Replying to an Email





The email that was just viewed now appears with a differently-colored icon to indicate it's been read.



To reply, the cursor is placed at the top of the text field, the prior message is quoted inline underneath.

ASDFGHJKL

ZXCVBNM

6:00 PM

New Message

Subject: Re: Meeting with "the Bobs"

On October 30, 2008, 6:00 PM Milton Waddams

I. I don't care if they if they lay me off either.

Send

Insert My Location

(Add)

3-05

Cancel

Cc Bcc

To: (Milton Waddams)

Email is sent

0:34 (sent to Home)

Josie Farris
TPS Reports

Nigel Burns

Leaving Initech.

0:22 (sent to Work)

Michael Trombley

Milton Waddams

Re: Meeting with "the Bobs"

Updated: 10/30/08 6:00 PM

John Smith
Re: Meeting with "the Bobs'

8:32 AM Work

Yesterday Work

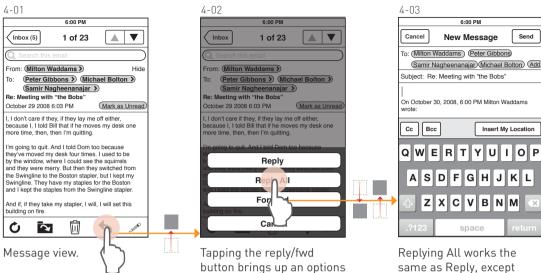
Yesterday Nome

Yesterday Work

Yesterday (>)

Work · ·

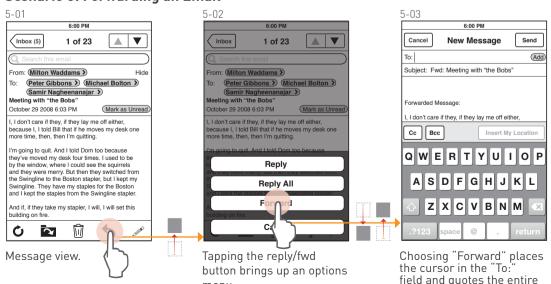
Scenario 4: Replying to All



menu.

menu.

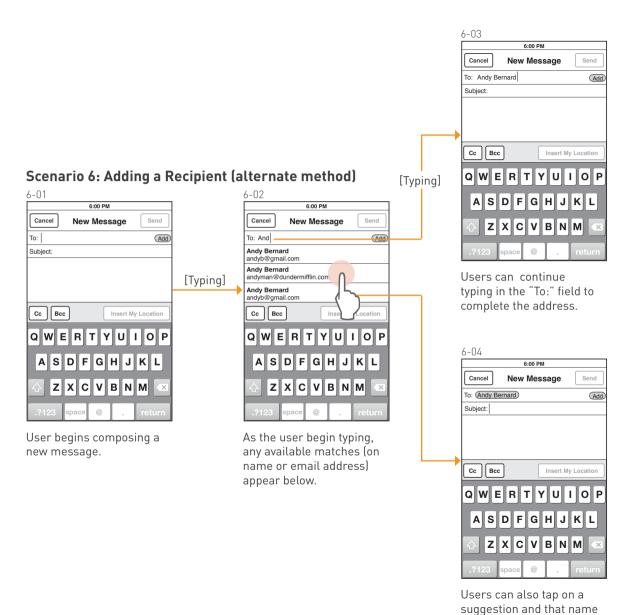
Scenario 5: Forwarding an Email



that all "To:" and "Cc:"

recipients are included.

moccago inlino



is added to the "To:" field.

Two of the most important screens are the Grid and Detail Page.

The grid is displayed when the The Guide module is accessed directly, and defaults to displaying the current time.

The app should remember the vertical position from the previous instance and scroll to the corresponding channel. If no data is available or if the The Guide is being accessed for the first time, it should default to the lowest available channel for that person's program guide.

The Grid can be scrolled horizontally (back to the present, and forward as much as the schedule allows. The Grid can also be scrolled vertically, spanning the entire cable lineup.

Users can tap a network name to add it to their favorites, or press and hold on a program to Quick Record it.

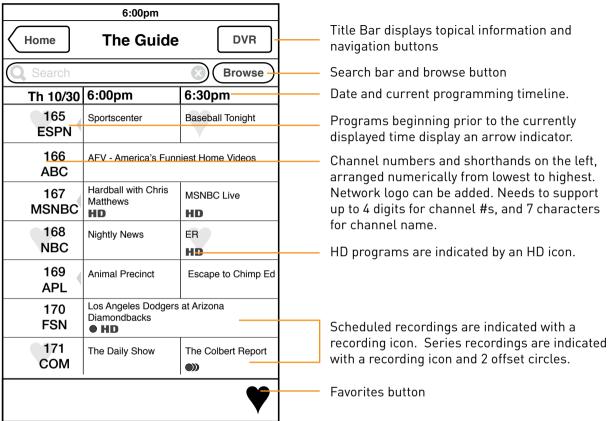
The Detail page allows users to see more information about a proogram, and interact with it by recording, sharing, setting a reminder, or adding to favorites.

An option on the detail page allows users to find out the next times and dates for when that program will air (as far into the future as the program will display).

Tapping the date pulls up a calendar which allows users to jump to a date up to 2 weeks in advance.

The Guide Grid

A-01



The Guide Detail Screen

A-02



The Detail page appears on the "flip side" of the The Guide. When tapping on a program, the grid appears to flip around revealing the detail page. The detail page includes a thumbnail, full program title, channel and network name, exact start and end times, full description, and options for Recording, Setting a Reminder, finding other showtimes for the program, adding it to your favorites, and sharing it with others. There is also an upsell opportunity on the details page where users can buy a show on DVD or any relevant items related to the show.

The DVR Screen is a place where users can see all the scheduled programs for their DVR.

The Favorites Screen allows users to toggle between seeing a grid with only their favorite channels and seeing a list of the programs they've marked as favorites.

The Record Screen shows all the available options for recording a particular program.

Refreshing the DVR screen ensures users that all recordings are up to date. For example, if someone is sitting in front of the TV at home, and just set a recording, the iPhone/iPod user will not know unless The Guide is refreshed.

DVR Main Screen

A-03

6:00pm			
Back	DVR	Ec	lit
Selected	DVR:	Living Room	>
Schedule	ed Recordings:		
10/30/08	Los Angeles Do Arizona Diamor		>
10/30/08	The Colbert Rep	oort	>
11/2/08	Boy Meets Worl	d	>
11/4/08	Baseball Tonigh	nt	>
11/4/08	Seinfeld		>
11/10/08	Reno 911		>
Ċ	Updated 7/20/08 5	: 30 PM	

The DVR Main screen displays a list of scheduled recordings for the currently-selected DVR. Users can change the DVR by tapping on the row showing its name. From this view, users can edit the list of scheduled recordings, or go to the detail page for the recording to access other settings.

Favorites Screen

A-04

6:00pm	
Edit Favorites	DVR
Arrested Development	>
Baseball Tonight	>
ER	>
House	>
Family Guy	>
Law & Order	>
South Park	>
Channels Programs	C

The Favorites screen is divided into 2 sections. One section displays users' favorite programs in a list. An Edit button allows users to edit multiple programs at once, or they can tap across to see the the Detail Page for the next time that program is scheduled to air.

The favorite channels option displays the Program Grid showing only a user's favorite channels.

Record Program Screen

A-(

	6:00pm	
Back	Record Program	
167 MSNBC	Hardball with Chris Matthews	s
Thu. 10/30	0/08 5:30-6:30pm	
Recorder	Living Room	>
Record	This Episode	>
	Set Recording	
	Cancel	
	Cance	

The Recording Screen displays the program name, channel, and network along with the date and time when it airs.

Users have the option to change the DVR on which the program will be recorded, and they can change whether the program records just one time or the entire series.

A button is available to set the recording. Tapping 'Back' or 'Cancel returns the usere to the list.

The iPhone and iPod Touch devices support robust transitioning from portrait mode to landscape mode as part of the devices' native architecture.

For most of the The Guide functions portrait mode offers a superior user experience (browsing lists, searching, detail pages, etc) so the module will operate principally in this manner.

However, one of the most crucial functions, browsing the Grid, offers substantial benefits of operating in landscape view. In this view, users are able to see 2 full hours of programming as well as 5 channels from which they can scroll horizontally (by time) or vertically (by channel).

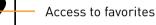
To serve this purpose, the landscape view will be presented whenever the user is viewing a grid in portrait mode and turns the device horizontally. There are limited buttons to reflect the limited functionality in landscape mode. Turning the device upright again restores portrait mode.

Landscape View for The Guide

A-06

6:00pm				
Th 10/30	6:00pm	6:30pm	7:00pm	7:30pm —
165 ESPN	Sportscenter	Baseball Tonight		Outside the Lines
166 ABC	AFV - America's Fu Videos	unniest Home	Ugly Betty	Lost
167 MSNBC	Hardball with Chris Matthews HD	MSNBC Live		Countdown with K
168 NBC	Nightly News	ER HD		Scrubs
169 APL	Animal Precinct	Groomer Has It	Meerkat Manor	Escape to Chimp Eden

Date and current programming timeline.



Landscape view of The Guide. Landscape view can be accessed by turning the device on its side when viewing the Grid in portrait mode (full grid or favorite channels grid). Turning the device right side up again displays the Grid in portrait mode automatically.

From the Landscape view, users can tap a program to view the details which switches to portrait mode. They can press and hold a program to Quick Record it, they can add and remove favorites, and they can view their favorite channels in a grid.

This page depicts the scenario of scrolling the grid, selecting a program to view the details, and setting a series recording.

The transitions used here should be both the "flipping" effect as well as the sliding effect

The sliding effect is used to move to different sub-screens of the same page (Detail Page) while the flipping effect is used to move between the Grid and the Details Page.

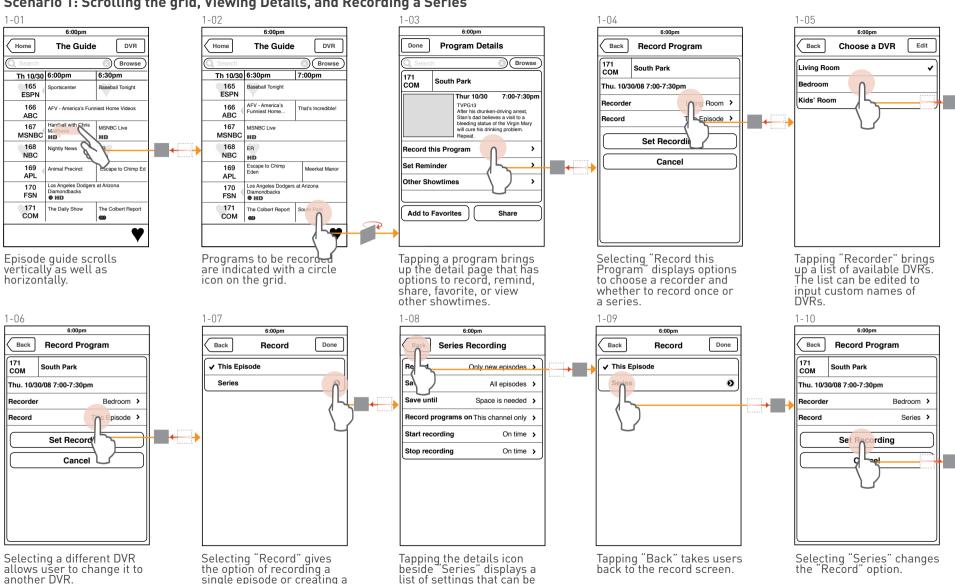
Subtle visual cues on the edges of the grid reveal whether or not the grid can be scrolled horizontally. The Grid can only be scrolled back to the current time, and in this case the visual cue exists only on the right side. This makes it easy for a user to quickly get back to "now".

The Grid displays a multitude of information, including favorite shows, favorite channels, whether a show is being recorded, and whether it's in HD.

The grid can be scrolled horizontally or vertically by flicking side to side or up and down. The grid will scroll out to a maximum of 2 weeks in the future.

Scenario 1: Scrolling the grid, Viewing Details, and Recording a Series

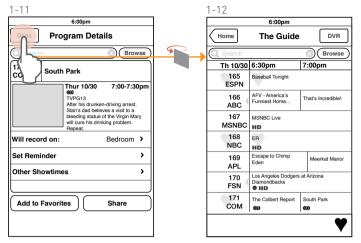
series recording.



modified. See screens 1-13

- 1-20 for further options.

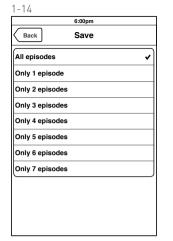
Screens 1-13 - 1-20 shows series recording options (1-08).



Selecting "Set
Program" shows that the
program is scheduled to
be recorded. "Record this
Program" turned into "Will
record on" and record series icon was also added.

Tapping "Done" flips the screen to The Guide grid. Program indicates series recording.

1-13	
	6:00pm
Back	Record
Only new ep	isodes
New and rep	eats
All wth dupli	cates



	6:00pm	
Back	Save Until	
Space is ne	eded	,
I delete		

1-16	
6:00pm	
Back Record Programs On	1
This channel only	•
All channels	

1-17

.,
6:00pm
Back Start Recording
On time 🗸
1 minute earlier
2 minutes earlier
3 minutes earlier
1 minutes earlier
5 minutes earlier
6 minutes earlier
7 minutes earlier
3 minutes earlier
9 minutes earlier
10 minutes earlier
11 minutes earlier

Show options up to "15 minutes earlier"

1-20

6:00pm	
Back Stop Recording	
On time	~
1 minute later	
2 minutes later	
3 minutes later	
4 minutes later	
5 minutes later	
6 minutes later	
7 minutes later	
8 minutes later	
9 minutes later	
10 minutes later	
11 minutes later	

Show options up to "15 minutes later"