

Connected TV Applications for TiVo

Virgin Media Store (aka. Electronic Sell Through)

Design Outline

5 Jun 2017

Changelog

Virgin Media is referred to as 'VM' and Vubiquity is referred to as 'VB' below.

5 April 2016

- Re: showing entitlements. VB has expressed concerns that checking entitlements on Store Screens (screens where the user browses for and buys content) will add undesirable latency.
 VM accepts this as reasonable. VM has gone back to separating the Store Screens from the Library Screens (screens where the user watches content) in order to avoid this risk. Entitlements will be checked only when the user presses a 'buy' button so that the user can be warned not to buy the same item twice.
- Re: Search results. VB has expressed concerns that returning images as search results will be too slow. VM accepts this as a risk. VM has restored the text search results, but with an image preview when a text result is put in focus. VM still has concerns with VB's original search journey, as after selecting a search result in text form (screen 70) the user was sent to the same results as an image carousel (screen 72) a redundancy that's counter-intuitive to VM. The user would likely expect to see the synopsis screen after pressing OK on their chosen search result, not see the same results again on the next screen in a different form (screen 72).
- 'Genres' and 'A-Z' states added to My Wishlist and My Library. This is to help the user find titles quickly when their personal catelogue gets large and unwieldly. They should mirror the mobile filters if possible (this doesn't have to be exact, but a similarity is desireable). These screen states could be hidden below a certain threshold of total items in My Wishlist and My Library.
- VB noted that My Wishlist and My Library can behave independently, but VM would prefer that titles that are listed in My Wishlist be removed after being purchased and placed in My Library.
- VM removed prompt for payment card information upon first-run and agreed the first purchase is the best part of the user journey to collect the payment card information.
- 'Continue Watching' carousel added to My Library.
- The purchase summary must include a waiver statment saying that the customer is giving up their 14 day return period when purchasing from VM (wording TBC).
- It is possible that the VM customer will not have a MyVM email set up, in which case they should not be able to make a purchase in the VM Store. The user must have an email to send their bill to.
- VM discussed allowing the user to purchase something twice, and it was decided that we would allow it after a warning. Although a corner case, VM thought some users might want extra DVD copies or want extra licenses for more devices (is this possible?).

- 'Accessability' section added to Account Settings following VB's suggestion.
- VM discussed further if access in the EST app should be restricted to users with suspended VM accounts, and the preference in the Digital Entertainment department is not to restrict access for these cases (it's possible this decision could be overruled in future by Legal. DE has argued that by keeping the payment methods separate VM would not be responsible for the customer's spending in EST).

28 April 2016

- Storefront Screen: Changed Main Menu items 'TV' and 'Account Settings' to 'TV Shows' and 'My Account' to normalise the width of the menu. Also changed initial state to Category Selector Zone of the featured carousel.
- Removed request for manual overide of Best Sellers and Recently Added carousels. VM agreed that if we need to push certain titles above the fold we can use the featured carousel.
- VM agreed that user will be prevented from buying titles more than once. When the user tries to purchase the app will check if the title has already been bought, and the user will be informed and directed to view the item in 'My Library'
- Wishlist Screen: VM accepts that titles won't be removed from the Wishlist after purchase, but they would like this feature in a future release.
- Mini Selector Zone (subheader row): since the logo is now going to be smaller there should be room for the subheader row to extend to the edge of the screen.
- Wishlist and Library Screens: changed the 'All' carousel sorting order to most recently added first, while the 'Movies' and 'TV Shows' carousels are sorted A-Z.
- Wishlist and Library Screens: CHANNEL UP/DOWN and NUMBER button shortcut functions have been added for faster navigation.
- VM accepts that top search results can't be separated into movies and TV, but they would like a feature like this in the future.
- VM accepts that the app won't serach for episode titles in the first release, but they would like to add more features to search in future releases.

8 June 2016

• A pop-up window and trigger button was added to the TV Series Screen to accomodate long synopsis that overflow.

Changelog

• A shortcut to the T&Cs pop-up was added to any screen with a 'Buy' button.

26 September 2016

- A Change Request on 25 August (CR3) stated that integration with the My Virgin Media SSO is dropped and adding payment cards through the TV app is withdrawn. The consequence for this app is that account management is done entirely on the web and the user will have a unique Virgin Media Store username and password which they must enter using an onscreen keyboard. A user will only have to sign in once on the same box unless they explicitly sign out.
- The 'My Account' screen was adjusted to match CR3. A 'sign out' button was added and the section name 'billing' was removed.
- Upon first run the user will sign in but they do not have to accept the T&Cs (this should have been done already during the web sign up, so this can be removed from the TV app) and they do not have to enter their parental control PIN (the sign in form should now prevent children from accessing it). The PIN challenge will appear by default when launching the app after a successful sign in (on a second run, for example).
- The payment flows were adjusted to match CR3.
- An extra pop-up explaning the breakdown of voucher discount was added to the payment flow. This is so it matches the web experience.
- Trailer launch buttons were added for TV series and episodes to match the web experience (these may not be needed straight away, but if needed in the future there is space for the buttons).
- Corrected notes on the TV Synopsis Screen that said only TV series can be added to My Wishlist. This should have said only entire TV shows can be added, not episodes or series.

30 September 2016

- Help Screen. Pagination function added. This is because the Terms & Conditions are expected to run 10-20 screens worth of text and it's going to be difficult to accomodate this without some kind of scrolling function.
- Table of Contents added to this document.

1 June 2017

- Sign in keyboard updated to incorporate user feedback.
- Keyboard Page Shift Buttons have been changed because some people found the 'toggle'

for the caps page confusing; separate buttons ('abc' & 'ABC') are now used to address this. The Numbers Shift Button has been removed and the on-screen number buttons have been incorporated into every page (instead of having its own page). When a Shift Button is active it is no longer selectable, and when a user presses OK on a Shift Button the focus jumps to the first entry button on the keyboard.

- When the email field has text focus (indicated by the blinking underscore) the 'abc' keyboard now includes common email symbols and shortcuts for '.com' and '.co.uk.'
- Multitap now allows typing in a text field that has text focus even when the main focus (red box) is not on the text field.
- When the user presses OK on the 'Next' button (or presses the SKIP FWD shortcut) the text focus jumps to the next form element (text fields and sign in button) *and* the main focus jumps to the first entry button on the keyboard.

5 June 2017

• Slight adjustment made to order of on-screen keyboard keys.

6 June 2017

- Incorporated more feedback into Sign In keyboard.
- Removed 'Next' button from bottom of the keyboard. User must navigate to the text fields to change the text focus to the next field.
- Text focus made slightly more prominent with a brighter field outline.
- Added THUMBS UP/DOWN remote control shortcuts for uppercase/lowercase keyboard shift.

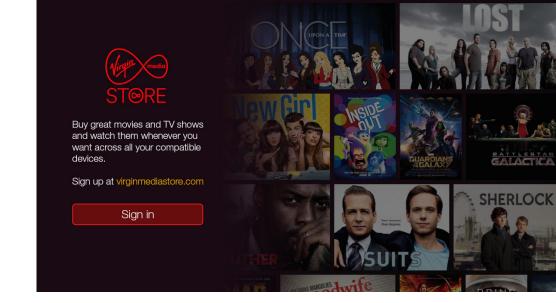
Table of Contents

App Launch	5
Splash Screen and Sign in Form	6
Journey 1: First run with successful sign in	7
Sign In Form	10
App Launch PIN Challenge	12
Journey 2: Relaunch after a previously successful sign in	12
Pre-order Notice	13
Main Screens	14
Storefront Screen	15
Journey 3: Navigating the Storefront Screen	16
Expanded Carousel Screen	18
Journey 4: Navigating the Expanded Carousel Screen Movie Synopsis Screen	19 20
Journey 5: Exploring the Movie Synopsis Screen	20
TV Synopsis Screen	22
Journey 6: Exploring the TV Synopsis Screen	23
My Wishlist Screen	24
Journey 7: Exploring the My Wishlist Screen	25
My Library Screen	26
Journey 8: Exploring the My Library Screen Search Screen	27 28
Journey 9: Exploring the Search Screen	20
Help Screen	30
Journey 10: Navigating the Help Screen	31
Account Settings Screen	32
Journey 11: Navigating the My Account Settings Screen	33
Video Player Screen	34
Purchase Process	35
Step 0: Start payment process	37
Purchase / Playback / Account PIN Challenge	38
Step 1: Billing email	39
Step 2: Billing address	40 41
Step 3: Payment details Step 4: Review order & pay	41
Step 5: Confirmation	43
Journey 12: Purchasing a movie at a discount	44
Pre-order Reminder Process	46
Step 0: Start payment process	47
Step 5: Confirmation	48
Journey 13: Pre-ordering a movie and then purchasing it	49

App Launch

Splash Screen

Sign in Form



Splash Screen before sign in. The Storefront tiles are visible in the background so a guest can see what's on offer.

Sign in to Virgin I	Medic	I Store	
abc			
abcdefg jklmnop		_ Email address	
stuvwxy 1234567	z 0	Password hide ✔	ALACTIC
@com .co.uk		Sign in	
Operation (Contraction)		New to Virgin Media Store? Forgot your password? Visit virginmediastore.com to sign up or manage your account.	RLOC

The must enter their Virgin Media Store credentials to use the app. The user can use multitap or the on-screen keyboard to fill in the text fields.

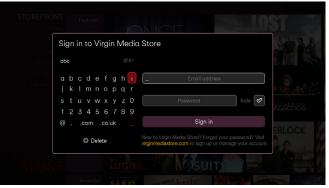
Journey 1: First run with successful sign in



1. App launched. Splash Screen appears. User is prompted to go to 2. OK pressed. Sign in form appears. Underscore blinks to indicate 3. LEFT pressed and focus moves to keyboard. the web to sign up or sign in.

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abc									
a b								_ Email address	
j k									
								Password hide 🕩	
1 2	3	4							
		com		co.	uk			Sign in	
		0	Dele	te				New to Virgin Media Store? Forgot your password? Visit virginmediastore.com to sign up or manage your account.	

the current text focus. User can use multitap or the on-screen keyboard to enter their email.

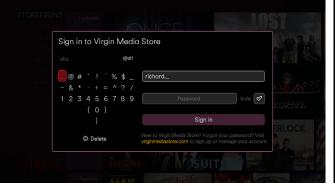


Sign in to Virgin Me	edia Store	
y Lite abc		
abcdefgh ^{Acc} jklmnopq		
stuvwxyz 12345678		hide 🖉
@com .co.uk	Sign in	
Ø Delete	New to Virgin Media Store? Forgot your p virginmediastore.com to sign up or mana	

4. User navigates to the 'r' using the ARROWS, and then presses OK to type the letter. The instructional text hides. Underscore

Sign i	in to Virgin I	Media	Store	
abc				
a b	cdefg		richard_	
j k	lmnop		1	
	uvwxy		Password hide 🕏	
	34567	89		
	.com .co.uk		Sign in	
	O Delete		New to Virgin Media Store? Forgot your password? Visit virginmediastore.com to sign up or manage your account.	

- Sign in to Virgin Media Store @#! . @ # ' ! ` % \$ _ (richard_ 123456789 O Delete
- 5. More letters are typed using the keyboard. User presses UP to 6. OK pressed. Keyboard shifts to symbols page. Note that the focus bring the Keyboard Page Shift Buttons in focus (nb. the active page, jumps to the first keyboard entry button.



7. OK pressed to type the full stop in the email field.

continues to blink.

Sig	n in to '	Virgin	Me	edic	Store
abc					
at		e f g	, h		richard.branson@virginmedia.co.uk_
j 🖡	< I m	nop			
s		w x y			Password hide 🛷
1 2	234	56	78		
	.com	.co.ul			Sign in
	@ D	elete			New to Virgin Media Store? Forgot your password? Visit virginmediastore.com to sign up or manage your account.

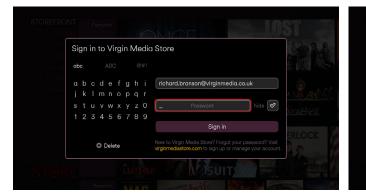
in this case 'abc', can't be highlighted).

the 'abc' page and enters the rest of the email.

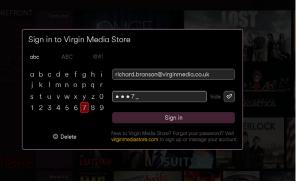


8. Using the ARROWS and OK the user shifts the keyboard back to 9. Using RIGHT the user navigates back to the form fields. Main focus (red box) always jumps to the field with the text focus (underscore).

Journey 1: First run with successful sign in



main focus.



password.



10. DOWN pressed. The text focus moves to the next field with the 11. User navigates back to the keyboard and starts to type the 12. UP pressed 4 times, moving focus to the first selectable Keyboard Page Shift Button ('ABC' in this case. Only the password field is case sensitive, hence the additional keyboard page with capitals.



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					ABC						
					E N					richard.branson@virginmedia.co.uk	
					W					•••••Ahide 🔗	
				4							
										Sign in	
				0	Dele	ete				New to Virgin Media Store? Forgot your password? Visit virginmediastore.com to sign up or manage your account.	RLOCK
	E						-		15	SUITS	
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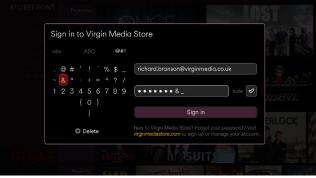
13. OK pressed revealing the capital letters. Focus jumps to the first 14. OK pressed. The user has typed an 'A' in the password field. entry button.



16. RIGHT pressed 8 times, bringing password field into focus.



password field using the multitap method. Note the colour change and the hidding underscore during the multitap cycle.



15. User has switched to the symbols page again and pressed OK on the ampersand button to type '&.'

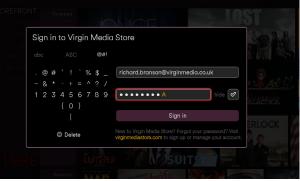
Sign in to Virgin Media Store @#'!`%\$_ 1 2 3 4 5 6 7 8 9 ••••• { 0 } C Delete

17.2 is pressed (on the remote control) in order to type an 'a' in the 18.2 pressed again typing a 'b.' (Note that the main focus COULD be on the keyboard to use multitap...it's the text focus (flashing underscore) that marks where the next letter is typed).

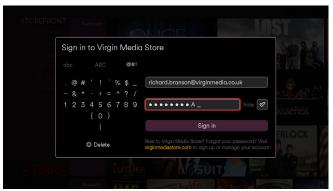
Journey 1: First run with successful sign in



19.2 pressed twice to advance to number '2.'



20. 2 pressed a fifth time to type 'A.'



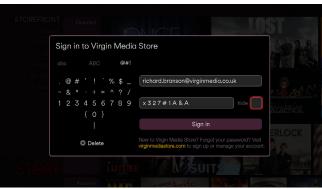
21. While user is idle (for 0.8 seconds) the letter sets. Note the colour change and the blinking underscore returning.



22. The user remains idle (for 2 seconds) and the password masks.

Si	gn	in	to	Vi	rgi	in l	Иe	edic	Store	10.2.8
							đ	#!		
	@ & 2								richard.branson@virginmedia.co.uk	
			0	l Dele	te				New to Virgin Media Store? Forgot your password? Visit Virginmediastore.com to sign up or manage your account.	ERLOCK





24. OK pressed. This button gives the user the option to type without masking so they can see what they've typed.



25. DOWN pressed. Note the text focus (blinking underscore) hides 26. OK pressed. The sign in was successful. (if the user returns focus to the keyboard this text focus would re-appear).

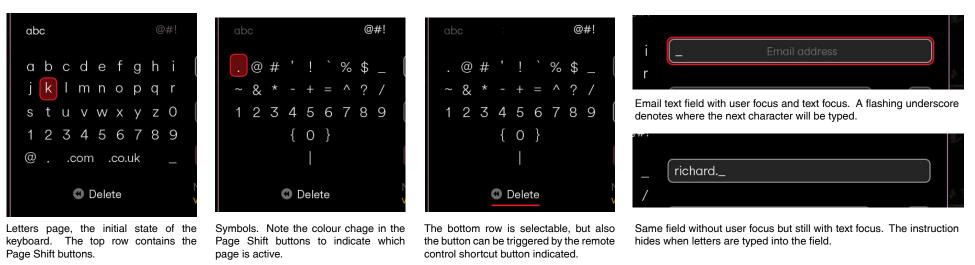


Sign In Form

On-screen keyboard

Users may enter their email and password into the text fields with the on-screen keyboard using the ARROW and OK buttons on their remote control. Up to 83 characters are accessable by shifting between pages using the top row of buttons. Upon an OK press characters will be added to the end of the string in the text field that has text focus. This is indicated by a flashing underscore, which is the active text cursor. The text cursor always leads and is at the end of the string after any new characters are typed.

Email entry (26 lower case letters + 10 numbers + 21 symbols = 57 possible characters)



Password entry (26 lower case letters + 26 upper case letters + 10 numbers + 21 symbols = 83 possible characters)



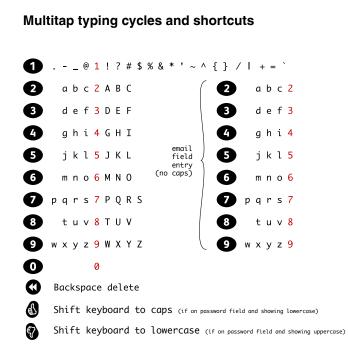
Only the password field is case sensitive so when it has text focus the letters page of the on-screen keyboard can toggle between cases, adding 26 possible characters.

r 2 0 Password hide 3 9 Password text field with text focus.



Same text field with user focus. By default the passwords masks (with bullets) as its being typed, but this can be unmasked by unchecking the tick box on the right. Note the characters are further apart in the password field.

Sign In Form



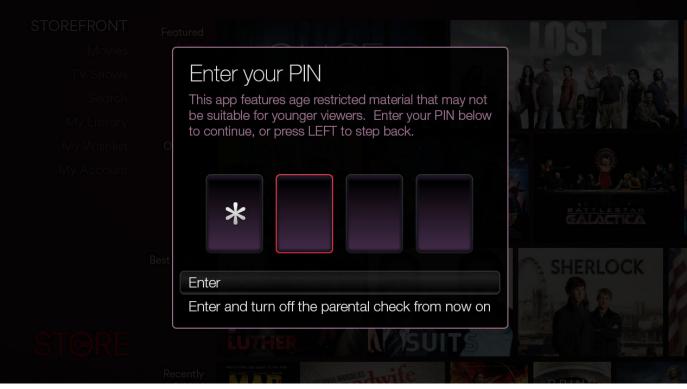
Note that the special characters on the keyboard (and in the multitap cycle of the '1' key) are the special characters allowed in the local part of an email address as described in RFC 822 (plus the full stop ('.') and the at symbol ('@') so that the entire email address can be typed). All of these characters are included because they could be part of someone's valid email address.

To keep the on-screen keyboard as simple as possible on the TV app the special characters used in passwords are also limited to this set. The web form online (where the user creates their password) treats other special characters as invalid (but allows capital letters so that passwords are case sensitive).

Text field

Fields without user focus	Fields with user focus
Virgin Media Store email Inactive state of the text field. Instruction line is shown centred	Virgin Media Store email Text field that has user focus but doesn't have text focus.
_ Virgin Media Store email	_ Virgin Media Store email
Text field with text focus. The leading underscore flashes at 1 fps, indicating where characters are about to be typed.	The above after the OK button is pressed. The underscore text focus appears and blinks.
richard.charles.nicholas.branson_ String has been typed using the on-screen keyboard. Text cursor continues to flash. Instruction line hides when first character is typed.	richard.charles.nicholas.branson String has been typed using the multitap method. Letter is yellow while user is cycling through letters using a number button; continues if user keeps pressing same key every 800 ms.
ichard.charles.nicholas.branson@virginmedia.co.uk_ If the string is wider than the field then the text cursor stays at the right hand side and the string is pushed left with each new character that appears.	ichard.charles.nicholas.branson@virginmedia.co.uk_ Same as left, but using multitap. Characters turn back to white and the flashing underscore reappears when the user is idle for 800 ms.
ichard.charles.nicholas.branson@virginmedia.co.uk Text focus is on another field after string has been typed, so underscore text cursor is hidden (it no longer has text focus).	ichard.charles.nicholas.branson@virginmedia.co.uk Text focus is on another field after string has been typed. Characters will not be added to the string until user presses OK and underscore text cursor re-appears.

App Launch PIN Challenge



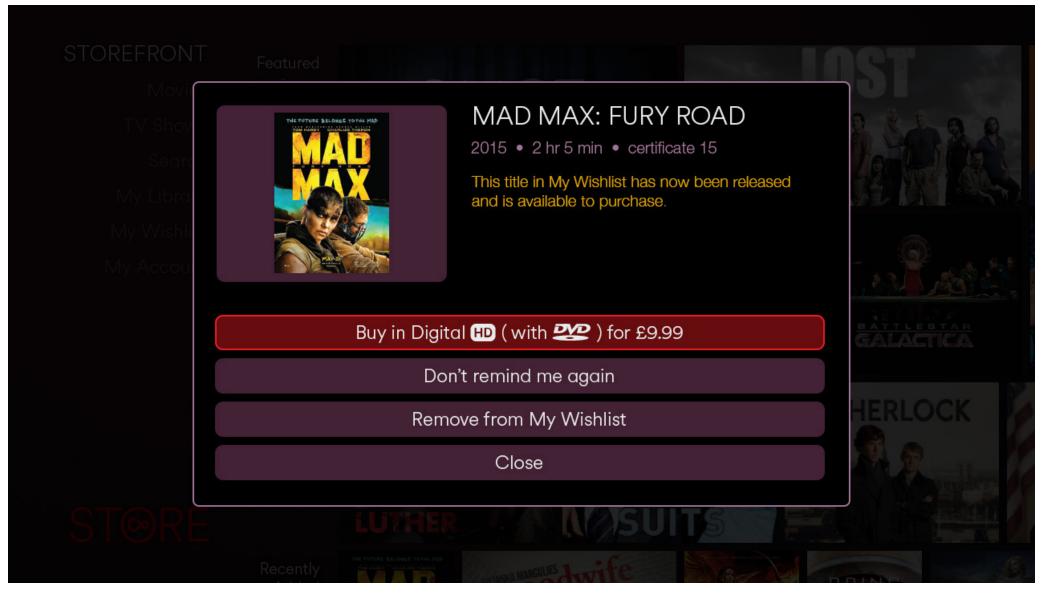
After 3 incorrect PIN entries the user will be prompted with a positive message (eg. "Forgotten your PIN?") to call Customer Care. After 4 incorrect PIN entries a message warns the user that they will have one more try before the app guits. The app guits after 5 incorrect PINs. The user is free to try again without delay by restarting the app.

Journey 2: Relaunch after a previously successful sign in



- a PIN challenge. User begins to enter their PIN using the NUMBER buttons on their remote.
- by pressing OK on the bottom item (this function is mirrored in the 'Parental Control' section in 'My Account')
- 1. App launch. Sign in isn't necessary again but the user must answer 2. Full PIN entered. The user may choose to turn off the PIN challenge 3. OK pressed. The PIN was valid. Storefront Screen now fully visible. If the user turned off the PIN this is the first screen they would see upon the next launch.

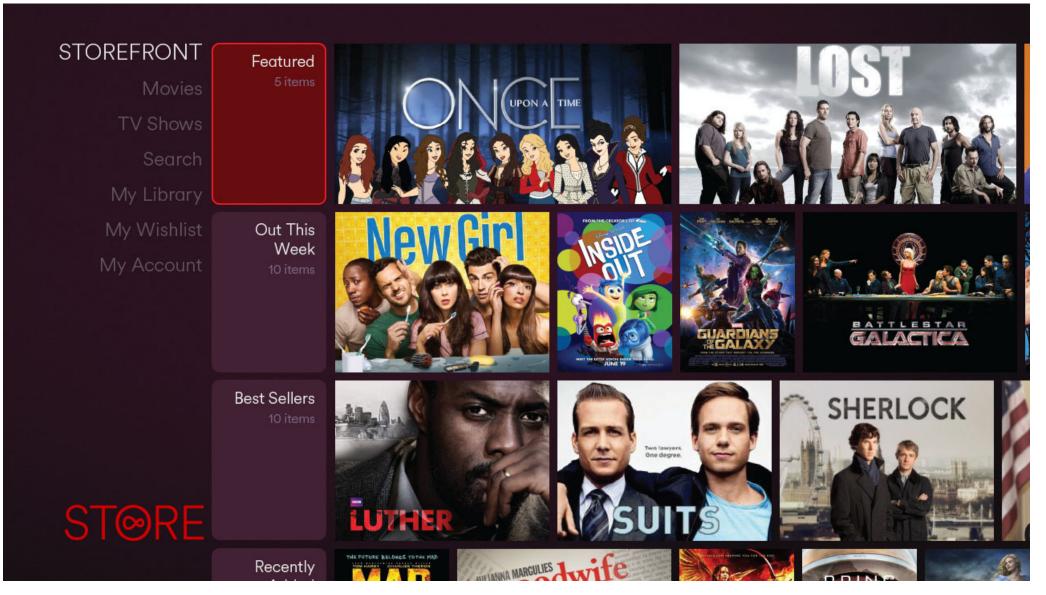
Pre-order Notice



If a pre-order is due the user will get a notice in the app at launch (after the PIN Challenge or Sign In Form). See more details in the Purchase Process section.

Main Screens

Storefront Screen



On the left is the Main Menu (with the 'Storefront' item active), in the middle is the Category Selector (shown above in focus) and the remaining is the Content Grid (filled with Category Carousels). The Main Menu does not scroll. The focus can rove up and down on Main Menu Zone and Category Selector Zone but the focus cannot be moved on to the tiles (on this screen, at least). At minimum each carousel should fill the Storefront Screen: movie only carousels will have at least 7 items, TV only 4, Genre 5, and Featured 3 (since each of the 4 types of tiles have different proportions). Carousels generally won't have more than 20 items, and the total of each carousel should be able to be set manually by an editor. Carousels like 'Best Sellers' and 'Recently Added' will be populated automatically ('Best Sellers' is based on sales numbers in EST). See 'Edit-DBR' in '1008410 EST DBR V1.0 Baselined.xlsx' for more details about the requirements for these categories. The categories are "soft" and adjustable in the content management system, therefore the names shown in the Category Selector Zone are not necessarily the final ones.

Journey 3: Navigating the Storefront Screen



1. On the left is the Main Menu (with the 'Storefront' item active), to 2. LEFT pressed, putting 'Storefront' in focus. the right is the Category Selector (in focus) and the remaining is the Content Grid.







3. DOWN pressed.



4. DOWN pressed again.



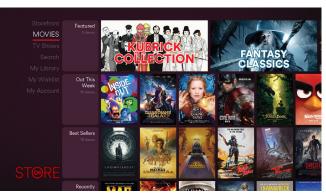
5. OK pressed. 'TV Shows' immediately and briefly displays an 6. 'TV Shows' area loads. This contains mostly 4:3 TV tiles. activated state to let the user know the app has received the button press.





7. RIGHT pressed. Focus moves back to Category Selectors.

MOVIES



8. User loads the Movies area (LEFT, UP, OK, then RIGHT pressed). 9. LEFT pressed. This contains mostly 2:3 movie tiles.

Journey 3: Navigating the Storefront Screen



10. User returns to Storefront area (UP, OK, then RIGHT pressed).

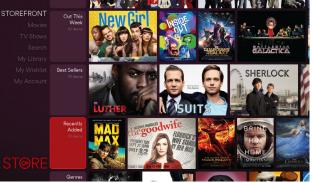




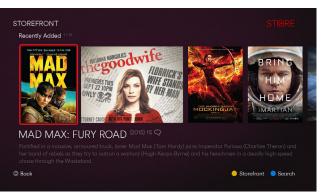
12. DOWN pressed.



13. DOWN pressed.



14. OK pressed. Focus briefly and immediately displays activated 15. OK (or RIGHT) pressed. Expanded Carousel Screen. state.



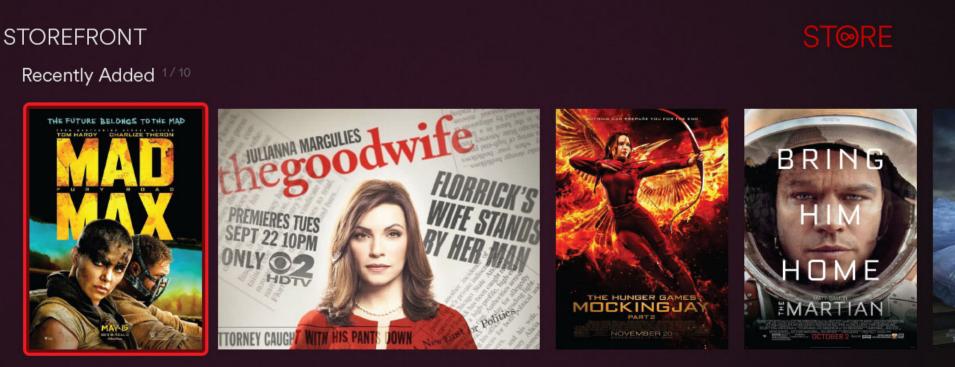


16. LEFT (or SKIP BACK) pressed.

17. DOWN pressed.

18. DOWN pressed.

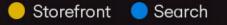
Expanded Carousel Screen



MAD MAX: FURY ROAD (2015) 15 📿

Fortified in a massive, armoured truck, loner Mad Max (Tom Hardy) joins Imperator Furiosa (Charlize Theron) and her band of rebels as they try to outrun a warlord (Hugh Keays-Byrne) and his henchmen in a deadly high-speed chase through the Wasteland.

🕒 Back

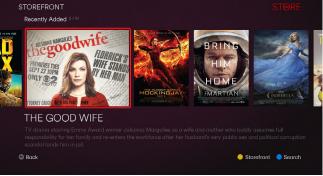


The top row is the Mini Selector (the header and subheader rows), below that is the Carousel (shown above in focus), then the Description and at the bottom is the Navigation. The Mini Selector Zone represents the catalogue hierarchy and should always be populated (in this above 'Storefront' is the parent and 'Recently Added' is the child in the directory). One of the subheader items is always indicated as 'active' (the example above only has one item in the subheader row, 'Recently Added'). Selecting and pressing OK on the current active subheader item (this example, 'Recently Added') will reset the carousel to the first position. The subheader items display the total number of items within the associated carousel, and the active subheader item indicates the carousel tile in focus (eg. 1/10, 2/10, 3/10...). The focus on the Mini Selector and Carousel sticks to the left-hand side of the screen (does not roam left and right) except when navigating to the end of the Carousel when the Carousel sticks to the right-hand side of the screen. Default focus is on first item in the Carousel. The movie year in the Description should always be displayed in parentheses after the title (so that movies with the same title can be differentiated). The Navigation can be selected using the ARROWS and throughout the app always has 3 items: Back, Storefront, and Search (save when the user is on the Search Screen, then 'Search' is omitted since it links to itself).

Journey 4: Navigating the Expanded Carousel Screen



1. Screen loads, initial focus is on the first item in the carousel.



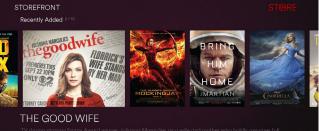
2. RIGHT pressed. Focus stays left-aligned.



 DOWN pressed, 'Back' button is focus. User can press OK to return to previous screen or press the SKIP BACK shortcut (regardless of where the focus is).

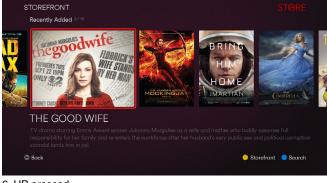


4. RIGHT pressed.

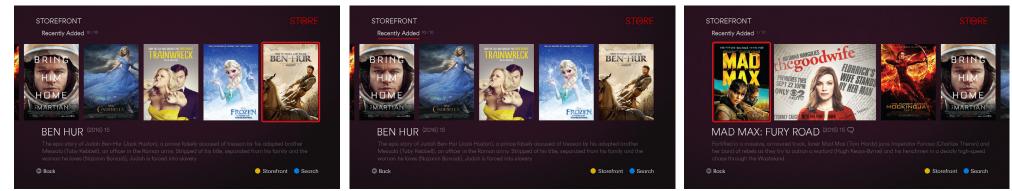




5. RIGHT pressed.





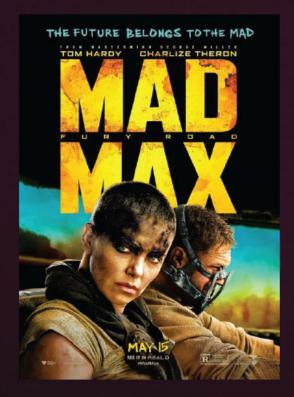


7. RIGHT pressed repeatedly. When last item in the Carousel is near 8. UP pressed. the right-hand side of the screen the carousel snaps into place and the focus is able to roam left and right.

Movie Synopsis Screen

MAD MAX: FURY ROAD (2015) 15 📿

Synopsis Related Titles ¹⁰ Also Stars In [£]



Fortified in a massive, armoured truck, loner Mad Max (Tom Hardy) joins Imperator Furiosa (Charlize Theron) and her band of rebels as they try to outrun a warlord (Hugh Keays-Byrne) and his henchmen in a deadly high-speed chase through the Wasteland. (Subtitles)

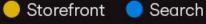
GENRES: Action, Adventure, Sci-Fi DIRECTOR: George Miller CAST: Tom Hardy, Charlize Theron, Nicholas Hoult DURATION: 2 hr 5 min

Buy in Digital 🖽 (with 2) for £9.99

Play trailer

Add to My Wishlist

View T&Cs



Journey 5: Exploring the Movie Synopsis Screen



1. Initial focus is on the Buy Button. An OK press would trigger the 2. DOWN pressed. An OK press would trigger the Video Player 3. DOWN pressed. Screen and the trailer would play. When the trailer is finished the user would be returned to this launch point.

Fortified in a massive, armoured truck, loner Mad Max (Tom Hardy) joins

😑 View T&Cs 😑 Storefront 😑 Search

outrun a warlord (Hugh Keays-Byrne) and his henchmen in a deadly

high-speed chase through the Wasteland. (📿 Subtitles)

Buy in Digital 田 (with 2) for £9.99

Play trailer

Action Adventure Sci-Fi

George Miller Tom Hardy, Charlize Theron, Nicholas Hoult

2 hr 5 mir



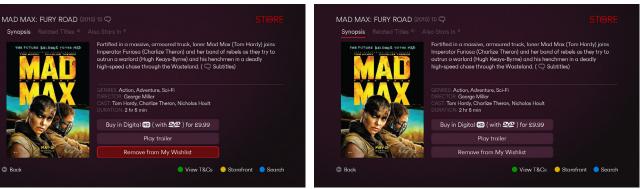
Purchase Process (explaned below). A GREEN press would take the user to the Help Screen showing the T&Cs.

Go to My Wishlist

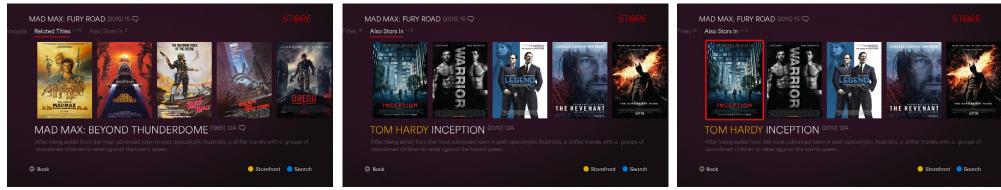
Close

4. OK pressed. The title has been added to the Wishlist.

Success!



5. DOWN and OK pressed ('Close'). Note the Wishlist Button has 6. UP pressed 3 times. changed its state.

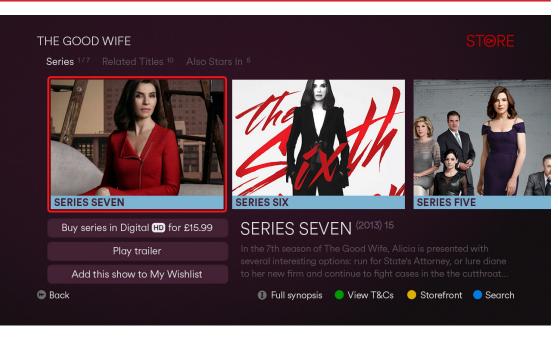


a Carousel is active.

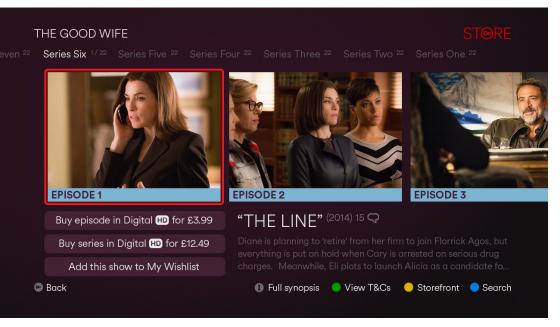
7. RIGHT pressed. Note change in the Carousel item numbers when 8. RIGHT pressed again. Note the principal actor name in yellow. 9. DOWN pressed. Long names will be truncated with an eplipsis.



TV Synopsis Screen

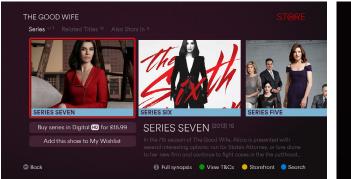


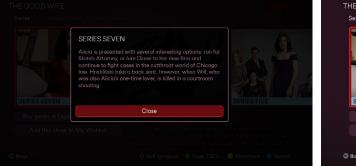
Series Level. Series are shown in reverse order, from highest number to lowest. Note the series numbers are spelled out in alphabetic characters. A TV series may or may not have a trailer button (see example on next page).

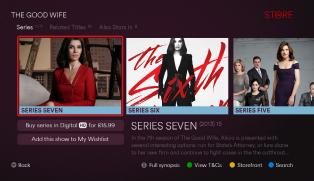


Episode Level. Episodes are shown lowest to highest. Note that only a TV show can be added to the Wishlist, not individual episodes or series. Episodes may also have trailer buttons, in which case the 'Buy series' button is replaced with a trailer button (see example on next page).

Journey 6: Exploring the TV Synopsis Screen

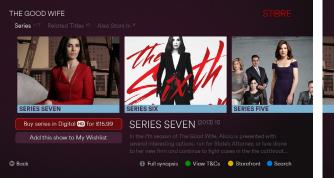


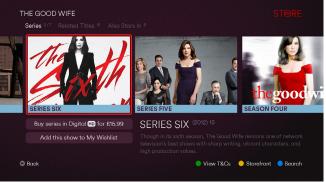




1. Initial focus is on the Carousel.

2. INFO pressed. Since there is an overflow on the synopsis the full 3. OK pressed. text can be read in a pop-up.





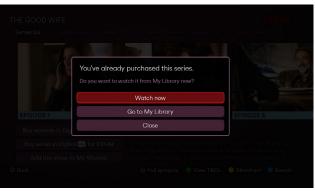
- 4. DOWN pressed. An OK press would trigger the Purchase Process 5. UP and RIGHT pressed. Since there is no overlow in the synopsis 6. OK pressed, loading the episode level for the series. Note that this (explaned below).
 - there is no 'Full synopsis' button on the Navigation along the bottom.



episode has a trailer.



7. DOWN pressed.

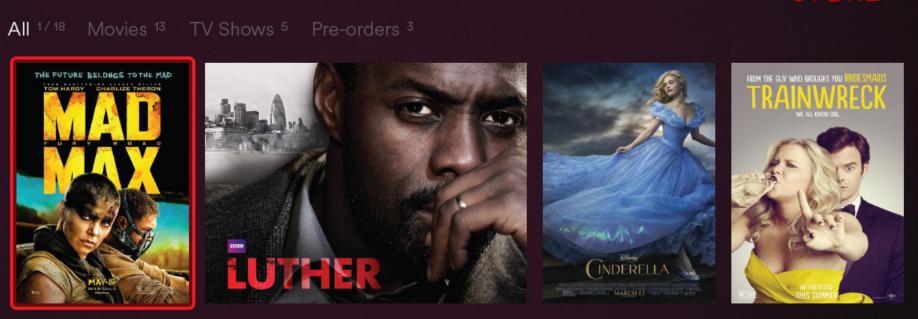




8. OK pressed. An entitlement check has been made and it turns out 9. OK pressed. Series playlist is triggered. the user has already purchased the whole series.

MY WISHLIST

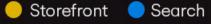
My Wishlist Screen



MAD MAX: FURY ROAD (2015) 15 🖓

Fortified in a massive, armoured truck, loner Mad Max (Tom Hardy) joins Imperator Furiosa (Charlize Theron) and her band of rebels as they try to outrun a warlord (Hugh Keays-Byrne) and his henchmen in a deadly high-speed chase through the Wasteland.

🕒 Back



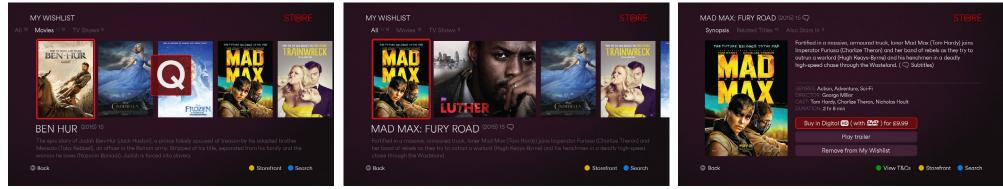
The carousels have different sorting orders. The 'All' and 'Pre-orders' carousels have the most recently added first, while the 'Movies' and 'TV Shows' carousels are sorted A-Z. The 'Pre-orders' Carousel will be hidden if there are no pre-orders (example shown on the next page). The screen has shortcut controls for faster navigation: CHANNEL UP and CHANNEL DOWN to page a screen of tiles at a time, and the NUMBER buttons can be used to type letters allowing them to jump the first asset that starts with that letter (or most adjacent in the alphabet).

Journey 7: Exploring the My Wishlist Screen



- on this carousel with most recent first.
- 1. Initial focus is on the first item in the 'All' Carousel. Titles are shown 2. UP, RIGHT, and then DOWN pressed. Titles are shown here in 3. When any carousel length gets over 30 items the user will be alphabetical order.

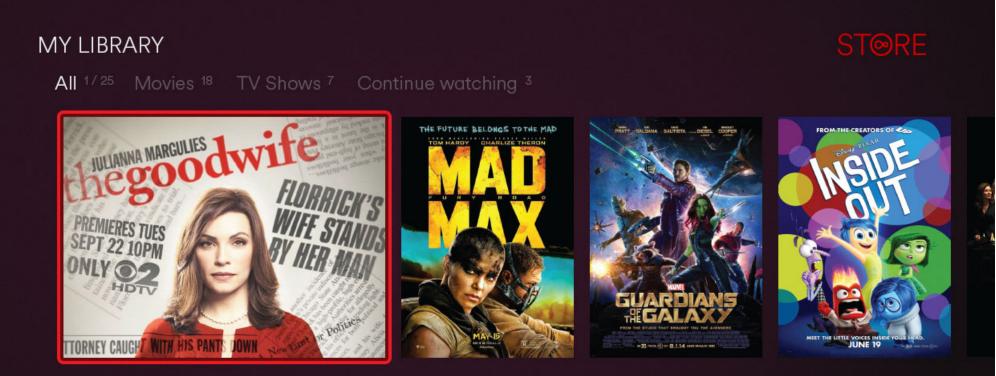
presented with a tool tip on how to use shortcuts to jump to items more quickly. There is also an option to dismiss this tooltip forever.



4. When the user presses a NUMBER button a letter is typed on the 5. User navigates back to 'All' Carousel. screen (using the same rules and delay times as multi-tap typing). The carousel will jump to the item starting with that letter and the on-screen letter will disappear.

6. OK pressed. Movie Synopsis loads. Note the option to remove from the Wishlist.

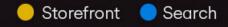
My Library Screen



THE GOOD WIFE

TV drama starring Emmy Award winner Julianna Margulies as a wife and mother who boldly assumes full responsibility for her family and re-enters the workforce after her husband's very public sex and political corruption

🕒 Back

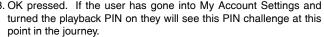


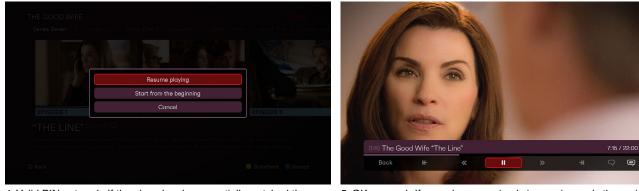
Very similar to the My Wishlist Screen but with a 'Continue watching' carousel. The same shortcut controls apply.

Journey 8: Exploring the My Library Screen



1. Initial focus is on the first item in the 'All' Carousel. In this case it's 2. OK pressed. A progress bar appears on partially watched episodes. 3. OK pressed. If the user has gone into My Account Settings and a TV show.





will be prompted as above.

4. Valid PIN entered. If the show has been partially watched the user 5. OK pressed. If user plays an episode in a series and other episodes are in My Library in the same series they should play in a playlist automatically.

Search Screen

SEARCH

All Movies TV Shows

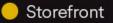
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А	В		D	Е	Batm
F	G	Н			Batm
К		М	Ν		Batm
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Q	Delet	e			The N
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Batman Begins (2005)
Batman & Robin (1997)
Batman Forever (1995)
Batman Returns (1992)
Batman (1989)
Batman (1966)
Batman: The Animated Series (1992)
Batman Beyond (1999)
Batman: The Brave and the Bold (2008)
The New Batman Adventures (2004)
Batman: Gotham Knight (2008)
Superman/Batman: Public Enem (2004)

Batman: Under the Red Hood (2010)



After training with his mentor, Batman begins his war on crime to free the crime-ridden Gotham City from corruption that the Scarecrow and the League of Shadows have cast upon it.



A Search Screen similar to the TiVo core version which VM customers are familiar with. A user may start the search with the 'Movies' or 'TV Shows' filter if they know what they are looking for.

Journey 9: Exploring the Search Screen



1. Initial state with the focus on the 'All' text field. User can type using 2. DOWN pressed. Focus moves to 'A' on on-screen keyboard. the multitap method or user the on-screen keyboard. The onscreen intructions make this clear.

3. User navigates using the ARROWS to highlight 'CLR.'

ARCH			
A B F G K L P Q U V Z CLR	R W DEL	J O T Y 123	
C Dele Back	te		Storefront





4. DOWN pressed. 'Space' button is in focus. Pressing OK would type a space, as would the FFWD button on the remote regardless of where the focus is.

5. The user decides to use the faster multiptap method to type and 6. As the search string is typed results appear immediately to the right. navigates back up to the text field.



the text field hides. A preview with artwork and synopsis appears at far right.

7. RIGHT pressed. First result is in focus, and leading underscore in 8. DOWN is pressed multiple times and the results list scrolls to the 9. OK pressed. TV Synopsis Screen loads. second page. This result happens to be a TV show.

Help Screen

HELP & FAQS

STORE

Payment and Billing Parental Control DVD Delivery Terms and Conditions Using My Library Using My

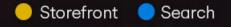
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🕒 Back



This screen contains a number of text pages. The user presses LEFT and RIGHT to switch from page to page. The copy shown on this screen, including the section names, are still TBD.

Journey 10: Navigating the Help Screen

Payment and Billing Parental Control DVD Delivery Terms and Conditions	Using My Library Using My Delivery	Terms and Conditions Using My Library Using		
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C Back	Storefront 🔵 Search	😁 Back	● Storefront ● Searc	
o Screen loads after OK was pressed on the Cateogory Selector 'Help		HT pressed 3 times. Note the focus rem		

HELP & FAQS

Back

ery Terms and Conditions Using My Library Using My Wishlist

1 2 3 4 5 6 7 8 9 10 11 12

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😑 Storefront 🛛 🔵 Search

3. DOWN pressed, then RIGHT pressed 5 times. On this row the focus moves left and right while the numbers remain stationary. The content updates with each RIGHT press so the user can advance from page to page of text.

HELP & FAQS

Back

livery Terms and Conditions Using My Library Using My Wishlist

1 2 3 4 5 **6** 7 8 9 10 11 12

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step 4 of the purchase process or when pressing green from a Synopsis Screen)

😑 Storefront 🛛 😑 Search

4. UP pressed. Note the article remains on page 6 and the number 6 shows an 'active' state.

Account Settings Screen

Signing in & out Payment and Delivery Pa	rental Control Accessability
My sign in details Email: richard.jones@hotmail.com	You are signed in to the Virgin Media Store using the email shown on the left. Your billing receipts will be sent to this email.
Password: •••••	If you have forgotten your password or you want to change it please visit virginmediastore.com/XXXXX.
Sign out	If you want to sign in with a different account first press 'Sign out.'
My other details	
Full name: Richard Jones	

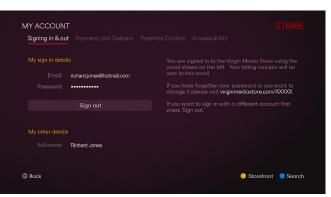
Journey 11: Navigating the My Account Settings Screen



1. 'My Account' is accessed from the Storefront Screen.



 OK pressed. The user must answer a PIN challenge to gain access 3. Valid PIN entered. to the account settings.



MY ACCOUNT Signing in & out Payment and Delivery Pare	antal Control Accessability	MY ACCOUNT In & out Payment and Delivery Parental Control Acc		MY ACCOUNT Delivery Parental Control Accessat
My sign in details Email: richard.jones@hotmail.com Password: ••••••	You are signed in to the Virgin Media Store using the email shown on the left. Your billing receipts will be sent to this email. If you have forgotten your password or you want to change it please visit viginmediastoracom/XXXX .	My billing and DVD delivery address Richard Jones 2 Privet Drive Barnet Hertfordshre EN4 3TR	For your security we require that your payment card billing address and the delivery address for your DVD are the same. If the address you see is out of order then please contact Customer Care at 084X XXX XXXX	You can set Pl your consent a may not be sui Require parent
Sign out My other details Full name: Richard Jones	If you want sign in with a different account first press Sign out.'	My stored payment card Card number: x0000x0000x5632 VISA Expiry date: 05/19	TV and movie titles are purchased in this app through a stored credit card. If you see here that your payment card details are incorrect wish viginmediastore.com/XXXXXXXXXXX to update them.	Require parent Require parent
G Baak	🔶 Storefront 🌘 Search	Back	Storefront 🕚 Search	lack

6. RIGHT pressed. Parental Control settings shown above are the defaults.

 MY ACCOUNT
 Accessability

 More Teleficial Control
 Accessability

 Muscle state PIN dehalenges to prevent others from making purchases without control evaluative.
 Muscle state PIN dehalenges to prevent others from making purchases without control evaluative.

 Mequire parental access PIN at application launch
 Muscle

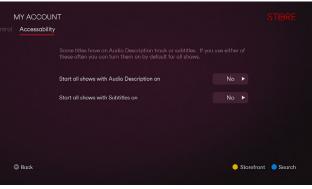
 Require parental access PIN before purchases
 No

 Require parental access PIN before purchases
 No

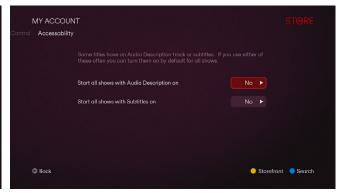
7. DOWN pressed.

user will be returned to the Sign In Form at the Storefront Screen.

4. DOWN pressed. This is where the user can sign out. If pressed the 5. UP and RIGHT pressed.



8. UP and RIGHT pressed. Accessability settings shown above are 9. DOWN pressed. the defaults.



Video Player Screen

As with the rest of the app all functions on the Video Player Screen are accessible using the D-pad (ARROWS and OK buttons) but shortcut buttons on the remote can also be used. The on-screen display (OSD) on the lower third appears briefly at the commencement of playback and when the INFO, SUBTITLES, D-Pad or trick play buttons are pressed. If the trickplay buttons are pressed the corresponding action (eg. rewind) occurs immediately (and the red focus moves to the matching on-screen button), otherwise the other buttons only 'wake up' the OSD without executing the action (eg. a RIGHT press will not move the focus on the OSD while the OSD is hidden).



OSD shown over a movie. This movie has a subtitle track but it is switched off.



The OSD hides if the user is idle for 3 seconds.



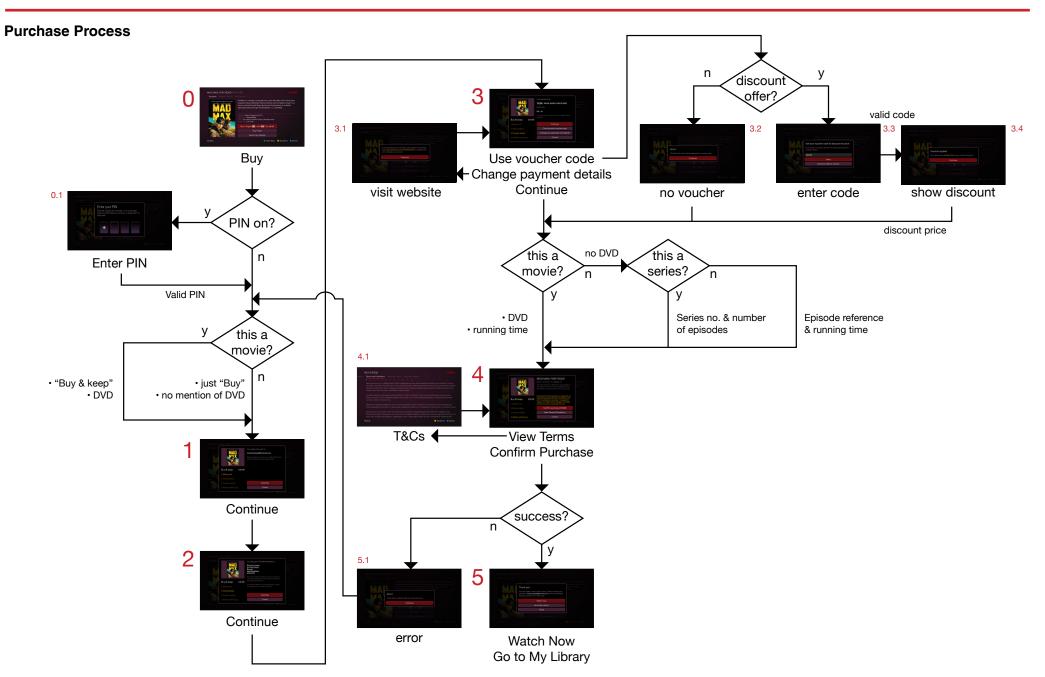
TV episode. The subtitle track has just been turned on using the ARROW and OK buttons.



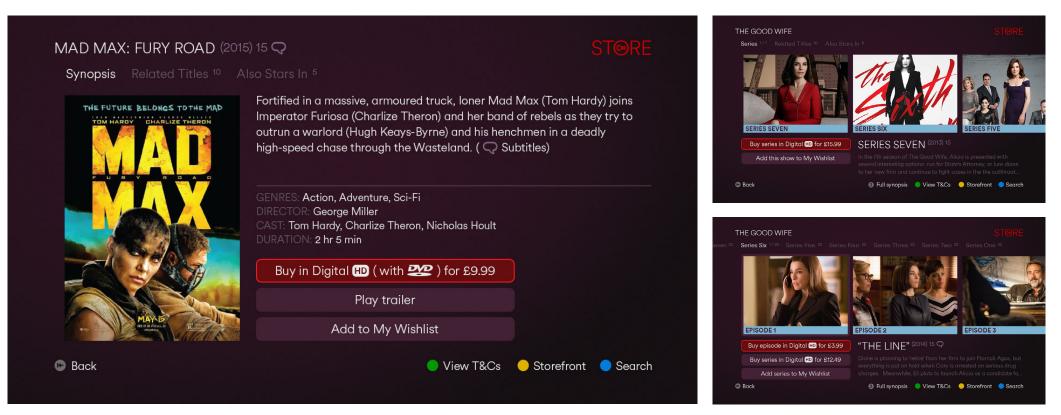
Video playlist. Note the item number before the show name and the skip buttons which allow the user to jump between assets in the playlist. This episode has both subtitles and an AD track but only the AD track is turned on.

Purchase Process

O Start payment process
1 Billing email
2 Billing address
3 Payment details
4 Review order & pay
5 Confirmation

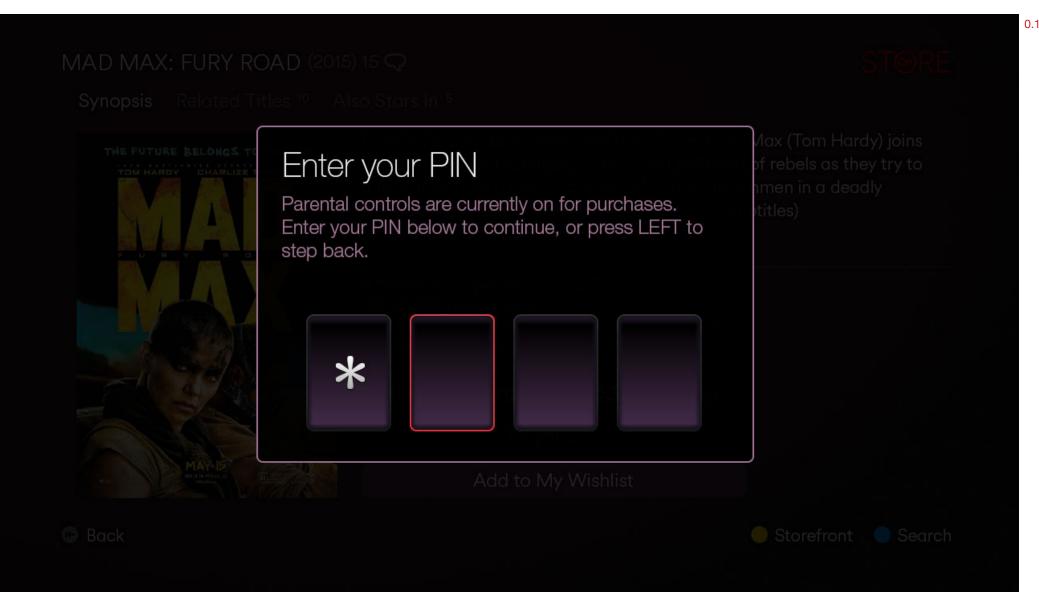


Start payment process



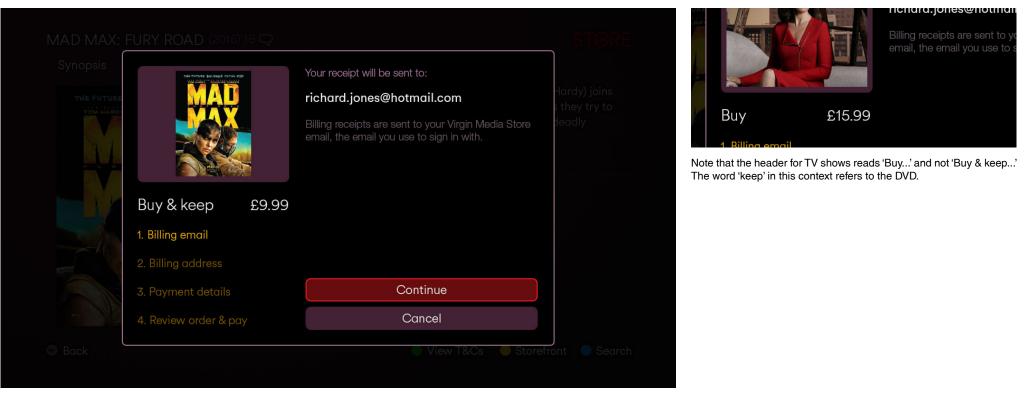
Buy Button on movies. Note the DVD extra mentioned on the button which is exclusive to movie purchases. Any screen with a Buy Button must Buy Buttons for TV Series (above) and TV Episodes (below). have a shortcut button to the Terms and Conditions.

Purchase / Playback / Account PIN challenge



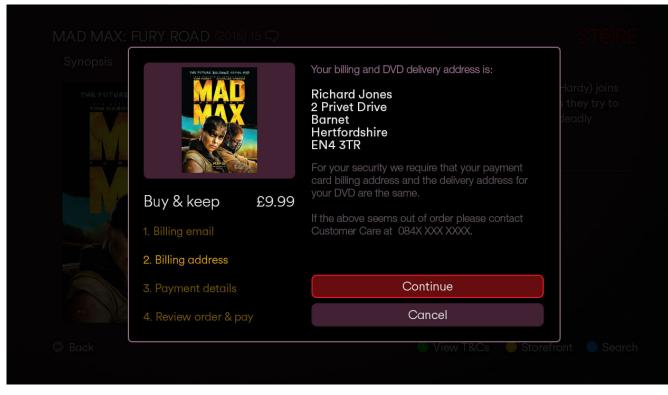
PIN challenge for purchase, playback and My Account (note the difference from the App Launch PIN challenge). This is off by default for purchase and playback but can be turned on in the account settings for greater parental control. After 3 incorrect PIN entries the user will be prompted with a positive message (eg. "Forgotten your PIN?") to call Customer Care. The user is free to keep trying without any consequence.

Billing email



Purchase Pop-Up. The user is presented with 4 steps. In the first the account holder's Virgin Media Store email is presented to remind them that their billing receipts will be sent there.

Billing address



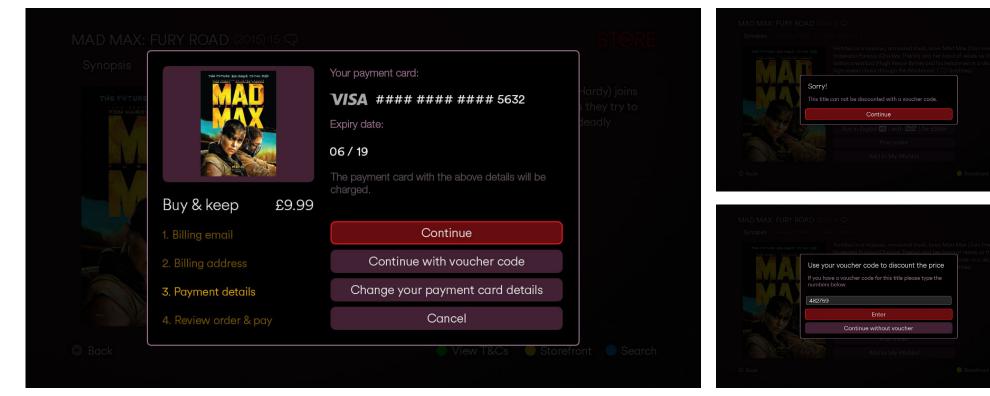
Purchase Pop-Up. The second step shows the payment card address and the notice that DVDs are also delivered to this address. The user may encounter a scenario where they do not want DVD sent to their billing address or that there will be some difficulty in posting to their billing address. A Customer Care number is given so that the user can get further advice.



When buying a TV show references to the DVD at this step are omitted.

Continue

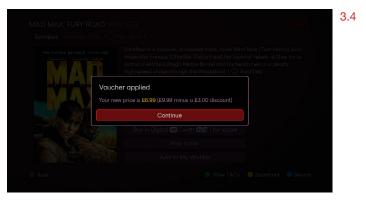
3 Payment details



Purchase Pop-Up. The third step reminds the user of their stored payment card details. If the user deems them correct they can press 'Continue' straight away, use a voucher code, or if they want to use another card they can opt for 'Change...' which triggers a pop-up instructing the user to visit the website (below).

3.1

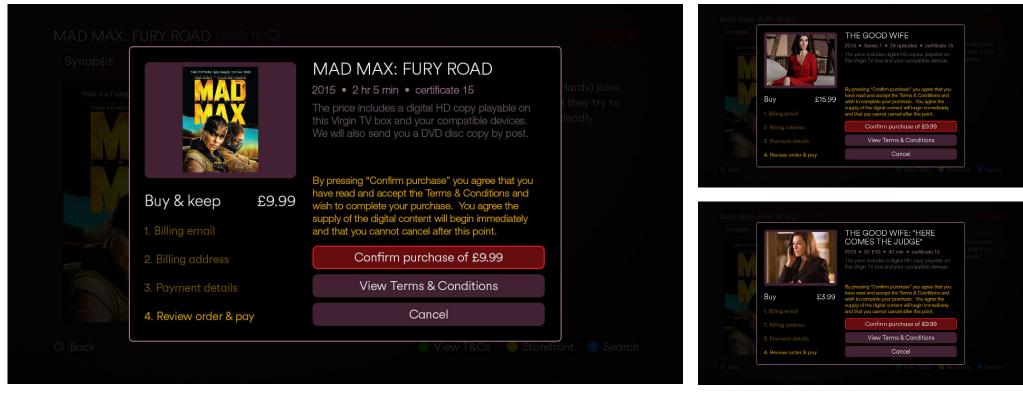
Most often their won't be a voucher code and the user will see the 'Sorry...' message (top). The user will then be sent to step 4. If the title is available at a discount the user will be prompted for the voucher code (above). If the code is valid the discount is presented (below) and the final discounted price will appear on step 4.



3.2

3.3

Review order & pay



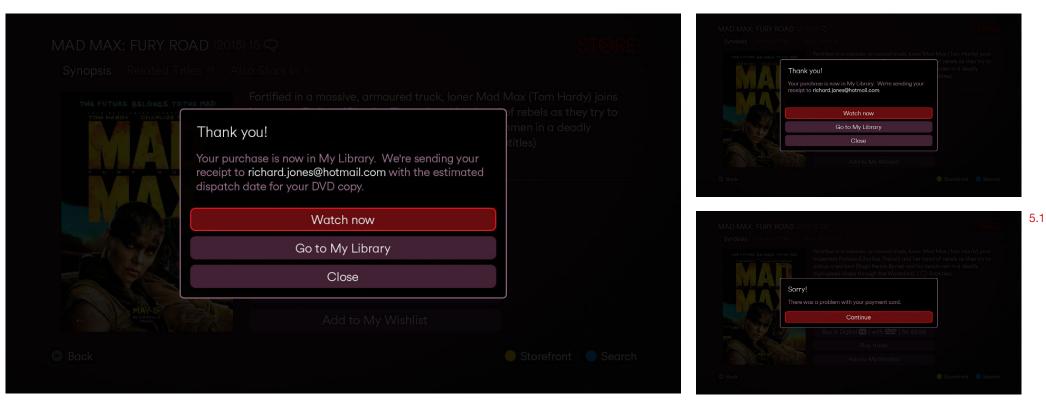
Purchase Pop-Up. The forth and final step is the review before the transaction happens. Movie purchases mention the DVD copy. This is also the user's final chance to read the Terms & Conditions before purchasing.

Step 4 for TV Shows, which omit a mention of a DVD. Series purchases (top) list series number and number of episodes, while episode purchases (above) list series and episode number and episode running time.

ELP & FAQS	
Terms and Conditions Using My Library Using My V	
2 3 4 5 6 7 8 9 10 11 12	
Nam nec eros arcu, a eleifend diam. Etiam scelerisque leo n risus felis. Curabitur convallis nibh in nunc volutpat laoreet. Untriceis iaculis erat in vivera. Aliquam sed nibh at est incid Lorem ipsum dolor sit amet, consectetur adipiscing elit.	
Curabitur egestas, turpis eget euismod aliquam, tortor leo a Vivamus at arcu in erat vulputate dapibus ut id massa. Cum montes, nascetur ridiculus mus.	
Maecenas imperdiet vestibulum est sit amet consectetur. Ar Proin consectetur commodo mi, quis posuere neque fermen	
Quisque dictum varius leo, vitae commodo lacus sodales eu bibendum tincidunt. Quisque eu arcu sit amet nulla sagittis purus sem, fringilla quis sagittis a, scelerisque a arcu. Lorem	
Back	Storefront Search

Upon pressing 'View...' the user is sent to the Help Screen (copy shown above not final)

5 Confirmation



Confirmation Pop-Up which appears after a successful transaction. Movie purchases mention the DVD copy.

TV show purchases do not mention a DVD copy (top). If there is an error the user gets the above pop-up (5.1) and they are returned to step 1 to try again.

Journey 12: Purchasing a movie at a discount



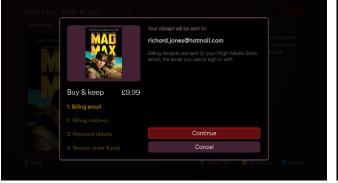
1. Movie Synopsis Screen.



2. OK pressed. Loading spinner graphic appears (if the next step is taking longer than 3 seconds); no input from the user is accepted while the spinner is up.



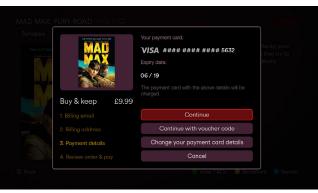
3. OK pressed. If purchases are PIN protected (via the account settings) the user must enter the PIN before any transaction (default is to have the PIN challenge off).



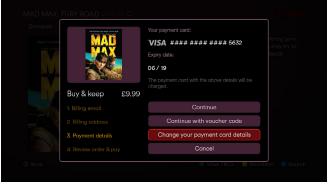
4. Valid PIN entered. User is reminded of their email.



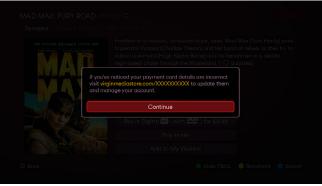
5. OK pressed. User is reminded of their delivery address.



6. OK pressed. User is reminded of their stored payment card information.



7. DOWN pressed 2 times.

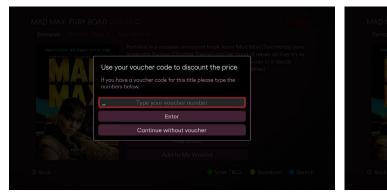


8. OK pressed. User is informed to go to the website to change their 9. OK and UP pressed. User has decided to go ahead with their payment card details if they so wish.



currently stored payment card and enter their voucher code.

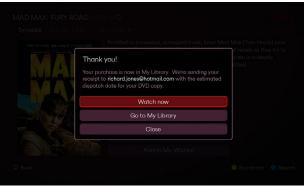
Journey 12: Purchasing a movie at a discount



10. OK pressed.



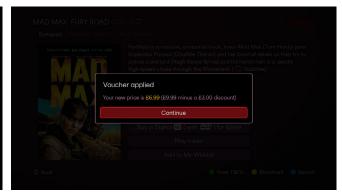
13. OK pressed. Price has been updated to show the discount.



Use your voucher code to discount the price

14. OK pressed.

pressed.

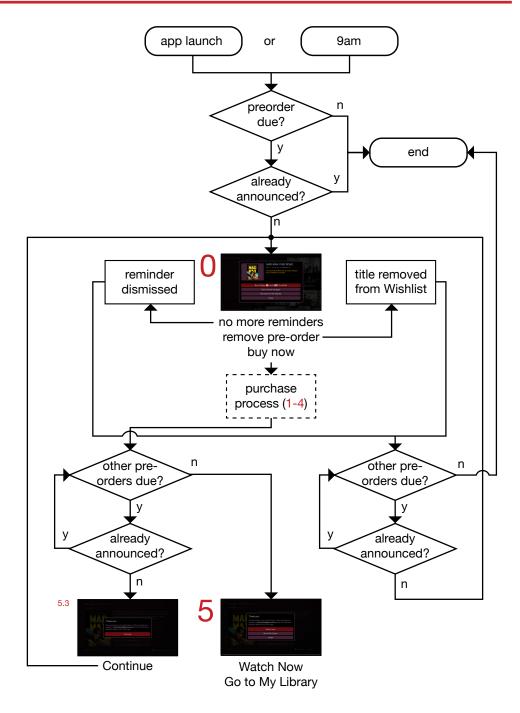


11. NUMBERS pressed to type in the voucher number, then DOWN 12. OK pressed. Message appears explaining the discount.

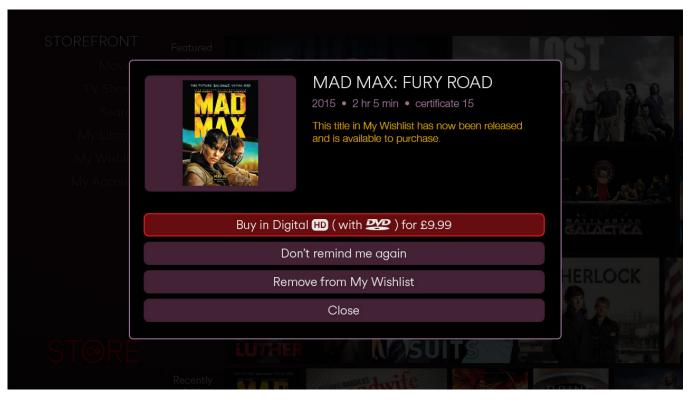


15. OK pressed. Movie plays.

Pre-order Reminder Process

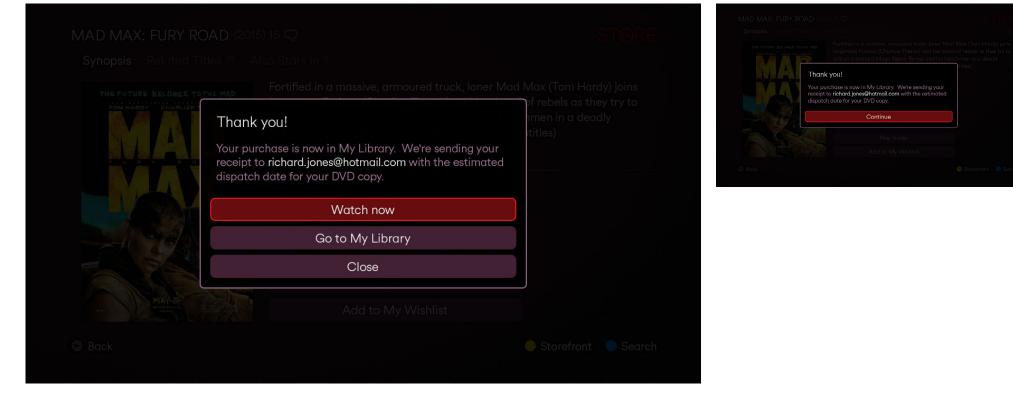


Start payment process



Preorder Notice Pop-Up. Would appear upon app launch or at 9 am on a release date if the app is running (except if content is playing). Pressing 'Buy..' will lead to the regular purchase process (steps 1 to 4).

Confirmation



Confirmation Pop-Up. This appears if there are no other pre-orders released. If there are others the user will not get the option to navigate away (5.3, at right).

5.3

Journey 13: Pre-ordering a movie and then purchasing it



1. Movie Synopsis Screen. Movie is available to pre-order.

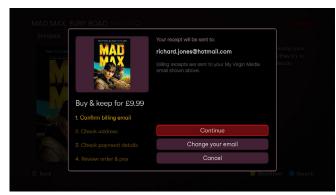


2. OK pressed. User gets confirmation that they will be notified when 3. OK pressed. Wishlist Screen loads. the title can be purchased.



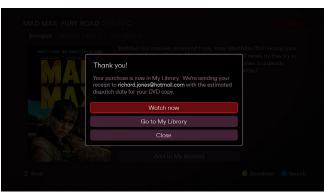


Buy in Digital 🖽 (with 2) for £9.99 Don't remind me again Remove from My Wishlist



- 4. User navigates to Pre-order carousel, and they can see their title 5. Time passes. On the release date of title the user is presented with 6. OK pressed on the buy button. User continues through purchase has been added.
- this alert.

process.



7. After finishing the 4 steps the transaction successful.



