

RDK Shell

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Versions

org.rdk.RDKShell.1

RDKShell controls the management of composition, layout, Z order, and key handling

Methods

moveToFront (v1)

Description: moves the client to the front or top of the Z order

Arguments:

- client - the name of the client to move to the front

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.moveToFront", "params":{"client": "org.rdk.Netflix"}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {}}
```

moveToBack (v1)

Description:

Arguments:

- client - the name of the client to move to the back or bottom of the Z order

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.moveToBack", "params":{"client": "org.rdk.Netflix" }}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": { } }
```

moveBehind (v1)

Description: Moves the client behind the specified target

Arguments:

- client - the client to move
- target - the target in which the client will move behind

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.moveBehind", "params":{"client": "org.rdk.Netflix", "target": "org.rdk.RDKBrowser2"}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": { } }
```

setFocus (v1)

Description: Sets focus to the specified client

Arguments:

- client - the client to move

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.setFocus", "params":{"client": "org.rdk.Netflix" }}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": { } }
```

kill (v1)

Description: Kills the client

Arguments:

- client - name of the client to kill

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.kill", "params":{"client": "org.rdk.Netflix"
}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {}} }
```

addKeyIntercept (v1)

Description: Adds a key intercept to the client application specified. The keys are specified by key code and a set of modifiers. Regardless of the application that has focus, key presses that match the key code and modifiers will be sent to the client application

Arguments:

- keyCode - the key code of the key to intercept
- modifiers - list of modifiers that need to be present to intercept
- client - the client to receive the key presses

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.addKeyIntercept", "params":{"
    "keyCode": 10,
    "modifiers": ["alt", "shift"],
    "client": "org.rdk.Netflix" }}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {}} }
```

removeKeyIntercept (v1)

Description: Removes the key intercept

Arguments:

- keyCode - the key code of the key to intercept
- modifiers - list of modifiers that need to be present to intercept
- client - the client to receive the key presses

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.removeKeyIntercept", "params":{"keyCode": 10,
"modifiers": ["alt", "shift"], "client": "org.rdk.Netflix"}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {}} }
```

getScreenResolution (v1)

Description: gets the screen resolution

Arguments: none

Returns:

- w - width
- h - height

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.getScreenResolution", "params":{ }}
Response: {"jsonrpc":"2.0", "id":3, "result": {"w": 1920, "h": 1080} }
```

setScreenResolution (v1)

Description: Sets the screen resolution

Arguments:

- w - width
- h - height

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.setScreenResolution", "params":{"w": 1920, "h": 1080 }}
Response: {"jsonrpc":"2.0", "id":3, "result": { } }
```

getClients (v1)

Description: Gets a list of clients

Arguments: none

Returns:

- clients: array

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.getClients", "params":{ }}
Response: {"jsonrpc":"2.0", "id":3, "result": { "clients": ["org.rdk.Netflix", "org.rdk.RDKBrowser2"] } }
```

getZOrder (v1)

Description: returns an array of clients in Z order, starting with the top most application client first

Arguments: none

Returns:

- clients: array

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.getZOrder", "params":{ }}
Response: {"jsonrpc":"2.0", "id":3, "result": { "clients": ["org.rdk.Netflix", "org.rdk.RDKBrowser2"] } }
```

getBounds (v1)

Description: gets the bounds of the specified client

Arguments:

- client

Returns:

- x - the x location
- y - the y location
- w - width
- h - height

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.getBounds", "params":{"client": "org.rdk.RDKBrowser2"}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {  
  "x": 0,  
  "y": 0,  
  "w": 600,  
  "h": 400} }
```

setBounds (v1)

Description: sets the bounds of the specified client

Arguments:

- client
- x - the x location
- y - the y location
- w - width
- h - height

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.setBounds", "params":{"  
  "client": "org.rdk.RDKBrowser2",  
  "x": 0,  
  "y": 0,  
  "w": 600,  
  "h": 400  
}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {} }
```

getVisibility (v1)

Description: gets the visibility of the specified client

Arguments:

- client

Returns:

- visible

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.getVisibility", "params":{"client": "org.rdk.Netflix" }}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {"visible": true} }
```

setVisibility (v1)

Description:

Arguments:

- client
- visible

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.setVisibility", "params":{"client": "org.rdk.Netflix", "visible": true }}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {} }
```

getOpacity (v1)

Description: gets the opacity of the specified client

Arguments:

- client

Returns:

- opacity

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.getOpacity", "params":{"client": "org.rdk.Netflix"}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": { "opacity" : 100} }
```

setOpacity (v1)

Description: Sets the opacity of the given client

Arguments:

- client
- opacity

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.setOpacity", "params":{"client": "org.rdk.Netflix", "opacity": 100}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {} }
```

enableInactivityReporting (v1)

Description: Enables or disables inactivity reporting and events

Arguments:

- enable - enables/disables inactivity reporting (boolean)

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.enableInactivityReporting", "params":{"enable": true}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {}}
```

setInactivityInterval (v1)

Description: Sets the inactivity notification interval

Arguments:

- interval - the inactivity event interval in minutes (integer)

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.setInactivityInterval", "params":{"interval": 15}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {}}
```

addKeyListener (v2)

Description: Adds a key listener to an app. The keys are bubbled up based on their z-order

Arguments:

- keyCode - the key code of the key to intercept (integer)
- modifiers - list of modifiers that need to be present to intercept
- client - the client to receive the key presses (string)
- activate - activate app on key event. default is false (boolean)
- propagate - propagate to the next app in the z-order. default is true (boolean)

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.addKeyListener", "params":{"keys": [{ "keyCode": 49, "modifiers": [], "activate":false, "propagate":true }, { "keyCode": 50, "modifiers": [], "activate":false, "propagate":true }], "client": "org.rdk.Netflix" }}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {}}
```

removeKeyListener (v2)

Description: Removes a key listener for an app

Arguments:

- keyCode - the key code of the key to intercept (integer)
- modifiers - list of modifiers that need to be present to intercept
- client - the client to receive the key presses (string)

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.removeKeyListener", "params":{"keys": [{
    "keyCode": 49,
    "modifiers": []
  }, {
    "keyCode": 50,
    "modifiers": []
  }],
  "client": "org.rdk.Netflix" }}}

Response: {"jsonrpc":"2.0", "id":3, "result": {}}
```

addAnimation (v2)

Description: Performs a set of animations

Arguments:

- animations - list of animations to perform
- client - the of the client to animate (in list) (string)
- x - the x location
- y - the y location
- w - width
- h - height
- sx - x scale factor (double)
- sy - y scale factor (double)
- a - alpha/opacity level to animate to (between 0 and 100)
- duration - duration of animation in seconds (double)
- tween - the animation tween type. supported tweens are: linear, exp1, exp2, exp3, inquad, incubic, inback, inelastic, outelastic, outbounce. the default is linear (string)

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.addAnimation", "params":{"animations": [{
  "client": "HtmlApp",
  "x":0, "y":0, "w":1920, "h":1080, "duration":"3"
},
{
  "client": "ResidentApp",
  "x":0, "y":0, "w":0, "h":0, "sx":0.5, "sy":0.5, "duration":"2"
}
]}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": {}}
```

setScale (v2)

Description: Scale an application

Arguments:

- client - the client to scale (string)

- sx - x scale factor (double)
- sy - y scale factor (double)

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.setScale", "params":{"client": "ResidentApp", "sx":1.5, "sy":1.5}}

Response: {"jsonrpc":"2.0", "id":3, "result": {}}
```

getScale (v2)

Description: Scale an application

Arguments:

- client - the client to scale (string)

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.getScale", "params":{"client": "ResidentApp"}}

Response: {"jsonrpc":"2.0", "id":3, "result": {"sx":1.5, "sy":1.5}}
```

generateKey (v2)

Description: Triggers key events (key press and release)

Arguments:

- keys - list of keys to simulate
- keyCode - the key code of the key to intercept (integer)
- modifiers - list of modifiers (as strings) that need to be present to intercept ("ctrl", "alt", and "shift" are supported)
- delay - the amount of time to wait (in seconds) before sending the key event (double)
- callsign - the app to send the key event to (optional)

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.generateKey", "params":{"keys":[{"keyCode": 49, "modifiers": [], "delay":1.0, "callsign":"appName"}, {"keyCode": 50, "modifiers": [], "delay":2.0}]}

Response: {"jsonrpc":"2.0", "id":3, "result": {}}
```

launch

Description: Launches an application

Arguments:

- type – the id of the runtime package or the callsign of the plugin desired to be clone (string). Required for create
- version – version of the package. Default to latest version
- uri: uri of app to launch
- x, y, w, h – positioning (integers). Defaults to 0, 0, screen width, screen height
- suspend – suspend the app on launch (boolean). Default is false
- visible – visible on launch (boolean). Default is true. This will be false if launch to suspended is true
- focused – app is focused on launched (boolean). Default is true. The app cannot be focused if visible is false
- configuration – json object specifying the plugin configuration overrides. Empty by default
- behind – client to put behind (string). Default to top of z-order
- displayName – name of the display to create

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.launch", "params":{"callsign": "appl", "type":"HtmlApp", "uri":"https://www.example.com", "x":0, "y":0, "w":1920, "h":1080}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": { } }
```

suspend (v2)

Description: Suspend an application

Arguments:

- callsign - the client to suspend (string)

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.suspend", "params":{"callsign": "Cobalt"}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": { } }
```

destroy (v2)

Description: destroys an application

Arguments:

- client - the client to destroy (string)

Returns: none

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.destroy", "params":{"callsign": "Cobalt"}}
```

```
Response: {"jsonrpc":"2.0", "id":3, "result": { } }
```

getAvailableTypes (v2)

Description: returns the list of application types available on the firmware.

Arguments: none

Returns: list of available application types

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.getAvailableTypes", "params":{}}

Response: {"jsonrpc":"2.0", "id":<number>, "result": {"types":["LightningBrowser", "HtmlBrowser", "Cobalt", "Netflix"], "success" : true} }
```

getState (v2)

Description: returns the list of application types available on the firmware.

Arguments: none

Returns:

- state – state of the runtime (e.g. ["resumed", "suspended"]) (string)
- callsign – callsign of the runtime (string) uri – the uri/url the package is set to (string)

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.getState", "params":{}}

Response: {"jsonrpc":"2.0", "id":<number>, "result": {"runtimes":[

{"callsign":"netflix1", "state":"suspended", "uri":"https://... "},

{"callsign":"cobalt1", "state":"resumed", "uri":"https://... " }

], "success": true} }
```

getSystemResourceInfo (v2)

Description: returns the list of application types available on the firmware.

Arguments: none

Returns:

- callsign – callsign of the runtime (string)
- ram – the amount of memory the runtime is consuming in kB (integer)
- vram – the amount of graphics memory runtime is using in kB (integer) (if supported)

```
Request : {"jsonrpc":"2.0", "id":3, "method":"org.rdk.RDKShell.1.getSystemResourceInfo", "params":{}}

Response: {"jsonrpc":"2.0", "id":<number>, "result": {"runtimes":[

{"callsign":"netflix1", "ram":123, "vram":50},

{"callsign":"html1", "ram":123, "vram":50},

{"callsign":"cobalt1", "ram":123, "vram":50}], "success": true} }
```

Events

onUserInactivity (v1)

Description: An event that is broadcasted when a device has been inactive for a period of time. This event is broadcasted at the frequency specified by `setInactivityInterval` if the device is not active. The default frequency is 15 minutes.

Parameters:

- minutes - The number of minutes that the device has been inactive (double)

onLaunched (v1)

Description: An event that is broadcasted when an runtime is launched

Parameters:

- client - the callsign of the plugin/runtime that was launched
- launchType - create, activate, suspend, or resume

onSuspended (v1)

Description: An event that is broadcasted when an runtime is suspended

Parameters:

- client - the callsign of the plugin/runtime that was suspended

onDestroyed (v1)

Description: An event that is broadcasted when an runtime is destroyed

Parameters:

- client - the callsign of the plugin/runtime that was destroyed