# ­­­Release History

**Distribution List**

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| To | [\\inof1fs1\common\_share\DistributionList\DistributionList.xlsx](file:///\\inof1fs1\common_share\DistributionList\DistributionList.xlsx) |
| Cc | [\\inof1fs1\common\_share\DistributionList\DistributionList.xlsx](file:///\\inof1fs1\common_share\DistributionList\DistributionList.xlsx) |
| Contact person | Gomes, Conrad; Doss, Senthilkumar; |

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| Version  Date | 2.1.280  08/11/2011 |
| Release Candidate | **GM Candidate** |
| Location of Release | [\\inof1fs1.slingmedia.com\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_08\_11\_V2\_01\_280](file:///\\inof1fs1.slingmedia.com\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_08_11_V2_01_280)  [\\usof1eng1.sats.corp\ENGDATA\Builds\Embedded\SlingBox\BetaReleases\SlingboxElmo\2011\_08\_11\_V2\_01\_280](file:///\\usof1eng1.sats.corp\ENGDATA\Builds\Embedded\SlingBox\BetaReleases\SlingboxElmo\2011_08_11_V2_01_280)  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.280 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “-1832571535”, size in bytes –** **“7801920”**  **2.1.281 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc –**  **“1076151682”, size in bytes - “7801920”** |
| Base version | 2.1.270 Trunk |
| Known Issues | * While Air-playing data loss, AV out of sync may be expected. |
| Fixed Issues | * ELMO-1463[Over H.264/AAC codec, Garbled video is getting displayed when ATSC HD content is streamed (ATSC-7.1 channel-AV freeze.ts clip with 7.1 channel and vide resolution is 1280x720) over Win WBSP v1.5.2.125 over LAN within ~5 Mins of streaming] * ELMO-1448[WMV/WMA Codec-Garbled video is getting displayed when DVBT HD content is streamed (TCS-Singapore-H264-1080i-17-JAN.trp clip) over iPhone v2.3.14 over LAN using 'SQ' mode, issue seen within ~10mins of streaming] * ELMO-1454 Austin:Video artifacts is seen intermittently for about 2~3 seconds while streaming DVBT on WBSP/AUSTIN client in LAN.These video artifacts were observed on every 10 ~20 minutes of continuous streaming. * ELMO-1459[TCP connection fails after upgrading the configured Slingbox with RVSC successful, to a non RVSC firmware(the case where the slingbox IP changes after upgrade)] |
| Feature Added | * None |
| Feature Updated | * MSG default IP is changed to “8.7.94.107” * HLS lebowski **normal mode is made default scheme** instead of aggressive mode. * In case WAN-IP change for NatPMP, UPnP router the box updates SPARCS with proper capabilities by doing a reverse ping. * For firmware upgrade from RVSC to Non-RVSC firmware, if RVSC was successful in earlier version, box handles it as Auto RV. (Does periodic port check, WAN-IP check) * For unconfigured box periodic reverse ping to SPARCS is not done as TCP is not setup. |
| Feature Removed | * None |
| Specific instructions to QA (if any) | * HLS specific: Lebowski normal mode can be made to aggressive mode by changing “lebo-highest-remembered-bitrate” field in config services. If the reminder of this value by ten results two then HLS lebowski will be in aggressive mode. For any other value it will do normal lebowski. * HLS specific: Max count (30) used for upgrading resolution also can be configured via config services. This will be done by configuring “lebo-default-bitrate” field in config services. **By default it is configured to (30**).If the reminder of config value by ten results one then this count will be changed to (10). If the reminder of config value by ten results two then this count will be changed to (20). If the reminder of config value by ten results four then this count will be changed to (15). For any other value it will be 30. |
| Classification | * Apple HLS with Lebowski |
| Dependency/  Environment /  Component | Boot loader version: 012  DSP Firmware Version:0.6.9 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | None |

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| Version  Date | 2.1.270  08/10/2011 |
| Release Candidate | **GM Candidate** |
| Location of Release | [\\inof1fs1.slingmedia.com\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_08\_10\_V2\_01\_270](file:///\\inof1fs1.slingmedia.com\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_08_10_V2_01_270)  [\\usof1eng1.sats.corp\ENGDATA\Builds\Embedded\SlingBox\BetaReleases\SlingboxElmo\2011\_08\_10\_V2\_01\_270](file:///\\usof1eng1.sats.corp\ENGDATA\Builds\Embedded\SlingBox\BetaReleases\SlingboxElmo\2011_08_10_V2_01_270)  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.270 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc – “-2109677482”, size in bytes –** **“7801408”**  **2.1.271 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc –**  **“1299424189”, size in bytes - “7801408”** |
| Base version | 2.1.260 Trunk |
| Known Issues | * While Air-playing data loss, AV out of sync may be expected. |
| Fixed Issues | * ELMO-1463[Over H.264/AAC codec, Garbled video is getting displayed when ATSC HD content is streamed (ATSC-7.1 channel-AV freeze.ts clip with 7.1 channel and vide resolution is 1280x720) over Win WBSP v1.5.2.125 over LAN within ~5 Mins of streaming] * ELMO-1448[WMV/WMA Codec-Garbled video is getting displayed when DVBT HD content is streamed (TCS-Singapore-H264-1080i-17-JAN.trp clip) over iPhone v2.3.14 over LAN using 'SQ' mode, issue seen within ~10mins of streaming] * ELMO-1459[TCP connection fails after upgrading the configured Slingbox with RVSC successful, to a non RVSC firmware(the case where the slingbox IP changes after upgrade)] |
| Feature Added | * None |
| Feature Updated | * MSG default IP is changed to “8.7.94.107” * HLS lebowski **normal mode is made default scheme** instead of aggressive mode. * In case WAN-IP change for NatPMP, UPnP router the box updates SPARCS with proper capabilities by doing a reverse ping. * For firmware upgrade from RVSC to Non-RVSC firmware, if RVSC was successful in earlier version, box handles it as Auto RV. (Does periodic port check, WAN-IP check) |
| Feature Removed | * None |
| Specific instructions to QA (if any) | * HLS specific: Lebowski normal mode can be made to aggressive mode by changing “lebo-highest-remembered-bitrate” field in config services. If the reminder of this value by ten results two then HLS lebowski will be in aggressive mode. For any other value it will do normal lebowski. * HLS specific: Max count (30) used for upgrading resolution also can be configured via config services. This will be done by configuring “lebo-default-bitrate” field in config services. **By default it is configured to (30**).If the reminder of config value by ten results one then this count will be changed to (10). If the reminder of config value by ten results two then this count will be changed to (20). If the reminder of config value by ten results four then this count will be changed to (15). For any other value it will be 30. |
| Classification | * Apple HLS with Lebowski |
| Dependency/  Environment /  Component | Boot loader version: 012  DSP Firmware Version:0.6.9 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | None |

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| Version  Date | 2.1.260  08/08/2011 |
| Release Candidate | **GM Candidate** |
| Location of Release | [\\inof1fs1.slingmedia.com\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_08\_08\_V2\_01\_260](file:///\\inof1fs1.slingmedia.com\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_08_08_V2_01_260)  [\\usof1eng1.sats.corp\ENGDATA\Builds\Embedded\SlingBox\BetaReleases\SlingboxElmo\2011\_08\_08\_V2\_01\_260](file:///\\usof1eng1.sats.corp\ENGDATA\Builds\Embedded\SlingBox\BetaReleases\SlingboxElmo\2011_08_08_V2_01_260)  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.260 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “-1080079780”, size in bytes –** “**7867968”**  **2.1.261 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc –**  **“2116215342”, size in bytes -** “**7867968”** |
| Base version | 2.1.250 Trunk |
| Known Issues | * While Air-playing data loss, AV out of sync may be expected. |
| Fixed Issues | * ELMO-1456[SB Pro HD v2.1.250 reboots if user selects any future (i.e., next day) programs from the EPG]. * ELMO-1449[TCP capability is not getting updated on SPARCS on changing the router side WAN IP after the box is configured for Auto RV. However the box is detecting the WAN IP change] * ELMO-1455[Slingbox discovery toggles 4 times when the firmware upgrade(2.1.250 to 2.1.251) is in progress after firmware download via CBFU] |
| Feature Added | * None |
| Feature Updated | * MSG default IP is changed to “8.7.94.107” * HLS lebowski **normal mode is made default scheme** instead of aggressive mode. |
| Feature Removed | * None |
| Specific instructions to QA (if any) | * HLS specific: Lebowski normal mode can be made to aggressive mode by changing “lebo-highest-remembered-bitrate” field in config services. If the reminder of this value by ten results two then HLS lebowski will be in aggressive mode. For any other value it will do normal lebowski. * HLS specific: Max count (30) used for upgrading resolution also can be configured via config services. This will be done by configuring “lebo-default-bitrate” field in config services. **By default it is configured to (30**).If the reminder of config value by ten results one then this count will be changed to (10). If the reminder of config value by ten results two then this count will be changed to (20). If the reminder of config value by ten results four then this count will be changed to (15). For any other value it will be 30. |
| Classification | * Apple HLS with Lebowski |
| Dependency/  Environment /  Component | Boot loader version: 012  DSP Firmware Version:0.6.8 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | None |

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| Version  Date | 2.1.250  08/01/2011 |
| Release Candidate | **Beta2 Candidate** |
| Location of Release | [\\inof1fs1.slingmedia.com\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_08\_01\_V2\_1\_250](file:///\\inof1fs1.slingmedia.com\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_08_01_V2_1_250)  [\\usof1eng1.sats.corp\ENGDATA\Builds\Embedded\SlingBox\BetaReleases\SlingboxElmo\2011\_08\_20\_V2\_1\_250](file:///\\usof1eng1.sats.corp\ENGDATA\Builds\Embedded\SlingBox\BetaReleases\SlingboxElmo\2011_08_20_V2_1_250)  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.250 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc – “1365074”, size in bytes –** “**7866432”**  **2.1.251 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc –**  **“455367758”, size in bytes -** “**7866432”** |
| Base version | 2.1.240 Trunk |
| Known Issues | * While Air-playing data loss, AV out of sync may be expected. |
| Fixed Issues | * ELMO-1442[While streaming on SPTV over RELAY, blasting multiple IR command results connection lost and box doesn't connect on any client until box reboot] * ELMO-1444[A green line is displayed on top of the video while streaming over HLS.] * ELMO-1424[Austin ProHD DVBT: Box response with 'invalid channel' for channel operation request] * ELMO-1366[Client is throwing " Invalid Session " error on multiple Connect/Disconnect while streaming over Realy on STPV and Google TV(Inconsistent)] * ELMO-1355: SNP: Firmware upgrade issue, Wrong DNS Server-IP, ProHD with fw 2.1.190 online but not upgrading to 2.1.200 even after 2 days of deployment |
| Feature Added | * None |
| Feature Updated | * For Static IP setups, router default gateway IP is used as alternate DNS IP. * For static IP setups, DNS server IP is explicitly set to the Net Stack. * HLS Lebowski Aggressive mode: (Default mode)  1. Uses peak bitrate achieved in the network for upgrade. 2. Lebowski 3.0 changes specific to HLS: 3. Upgrade counter won’t be reset when bitrate goes below RUP. 4. Upgrade counter will start decrementing when bitrate goes RDP. 5. If upgrade counter is non-zero, then upgrade counter will start incrementing when bitrate goes above RDP.  * Generic lebowski change for all client :  1. Upgrade counter won’t be reset when bitrate goes below RUP and it will be reset when it goes below RDP. 2. Reusing last session remembered bitrate done based on IP address now. Applicable to both LAN & WAN. So switching between SQ & HQ will use the remembered bitrate to start streaming.  * On box boot-up SPARCS reverse ping test is performed, to update TCP capabilities to SPARCS. * Periodic SPARCS reverse ping test is done every 24 hours. |
| Feature Removed | * RVSC |
| Specific instructions to QA (if any) | * HLS specific: Lebowski Aggressive mode can be made to normal mode by changing “lebo-highest-remembered-bitrate” field in config services. If the reminder of this value by ten results one then HLS lebowski will be in normal mode. So peak upgrade and changes done specific to HLS lebowski 3.0 will be disabled.      * HLS specific: Max count (30) used for upgrading resolution also can be configured via config services. This will be done by configuring “lebo-default-bitrate” field in config services. **By default it is configured to (15**).If the reminder of config value by ten results one then this count will be changed to (10). If the reminder of config value by ten results two then this count will be changed to (20). If the reminder of config value by ten results three then this count will be changed to (30). * HLS specific changes were done to keep some lebowski configurable params for testing. In future these options will be removed. * Test HLS-fixed bitrate as SPM supports Auto(lebowski), HQ(fixed bitrate),   SQ(ASF). |
| Classification | * Apple HLS with Lebowski |
| Dependency/  Environment /  Component | Boot loader version: 012  DSP Firmware Version:0.6.8 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | None |

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| Version  Date | 2.01.240  07/20/2011 |
| Release Candidate | **~~Beta2 Candidate~~ Internal** |
| Location of Release | [\\inof1fs1.slingmedia.com\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_07\_20\_V2\_01\_240](file:///\\inof1fs1.slingmedia.com\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_07_20_V2_01_240)  [\\usof1eng1.sats.corp\ENGDATA\Builds\Embedded\SlingBox\BetaReleases\SlingboxElmo\2011\_07\_20\_V2\_01\_240](file:///\\usof1eng1.sats.corp\ENGDATA\Builds\Embedded\SlingBox\BetaReleases\SlingboxElmo\2011_07_20_V2_01_240)  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.240 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc – “**2028429561**”, size in bytes –** “7907392**”**  **2.1.241 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc –**  **“**1460909458**”, size in bytes -** “7907392**”** |
| Base version | 2.1.230 Trunk |
| Known Issues | * While Air-playing data loss, AV out of sync may be expected. * Box might take around 30seconds to be detected in MTW after the network LED is up |
| Fixed Issues | * ELMO-1420[Box always streams with the last known bitrate (VB) and doesn't stream using the Highest Remembered Bitrate which is set in the config services]. Current SPM (iPad 1.3.9 and ipod 2.3.9) builds are not supporting this feature. Need a SPM change to verify this issue. * ELMO-1421[When connecting to the box for the first time on WAN using HLS clients, it doesn't use the default resolution for wan (VGA) set in config services instead it streams with QVGA]. Current SPM (iPad 1.3.9 and ipod 2.3.9) builds are not supporting this feature. Need a SPM change to verify this issue. * ELMO-1433[Pro HD FW v2.1.230-Sling Box is performing RVSC WAN ip interval check for every 5mints though 'rvsc-wanip-check-interval' is set to other than 5mints (in this case set to 2mints) in the configuration services] * ELMO-1412[Beta: Receive error message when connecting via SlingPlayer for Windows] * ELMO-1358[Box is not getting connected over SPTV client with chrome browser on google TV instead throwing HTTP Error as "Error retrieving stream from slingbox code :3" (Observed once out of 5 attempts over WAN. Tried 10 times over LAN and not observed] * ELMO-1419[iPad gets stuck in "Starting" on starting streaming with analog RF video input - Inconsistent (Observed 4 out of 9 times)] * ELMO-1351[IR support without streaming] * ELMO-1435[Analytics will be logged with FIS and FDS ip] * ELMO-1439[SNP: prohd : message size overflow error : 0x923400DF] * ELMO-1423[Getting conflict message for no reason on my box and can't takeover the stream either] |
| Feature Added | * Added optimized mux enable/disable feature through messaging for HLS android clients. |
| Feature Updated | * None. |
| Feature Removed | * None |
| Specific instructions to QA (if any) | 1. Need a change in SPM-config services in order to do http lebowski 2.x or 3.0. 2. Lebowski-tolerence field should be set to 2 for 2.x and 3 for 3.0. 3. Video-bitrate-lan, video-bitrate-wan fields should contain only one bitrate. The bitrate mentioned in this field will be the max bitrate lebowski can achieve. 4. No change in lebowski resolution table for HLS. It is same as ASF. |
| Classification | * Apple HLS with Lebowski |
| Dependency/  Environment /  Component | Boot loader version: 012  DSP Firmware Version:0.6.7 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | None |

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| Version  Date | 2.01.230  06/29/2011 |
| Release Candidate | **Beta Candidate** |
| Location of Release | [\\inof1fs1.slingmedia.com\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_06\_29\_V2\_01\_230](file:///\\inof1fs1.slingmedia.com\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_06_29_V2_01_230)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2011_06_29_V2_01_230/>  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.230 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc – “-1876272090”, size in bytes –** “7848512**”**  **2.1.231 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc –**  **“1245444904”, size in bytes -** “7848512**”** |
| Base version | 2.1.220 Trunk |
| Known Issues | * While Air-playing data loss, AV out of sync may be expected. * Box might take around 30seconds to be detected in MTW after the network LED is up |
| Fixed Issues | * ELMO-1364[Resolution is not getting upgraded from HVGA to VGA while streaming from SPTV client,logs are showing "ssm\_update\_current\_resolution\_index():resolution not found in table. res index 6"] * ELMO-1358[Box is not getting connected over SPTV client with chrome browser on google TV instead throwing HTTP Error as "Error retrieving stream from slingbox code :3" (consistent)] * ELMO-1400[HLS : Buffering wheel is observed after streaming for about 1 min, 5 mins, 9 mins(random) on i-Pad/i-Phone over TCP WAN. On disconnecting and connecting it back, the box doesn't get connected on any client - Consistent] |
| Feature Added | * ELMO-1245 : [SNP: 4.2.2.1 is used as DNS for DHCP setup](https://jira.slingmedia.com/browse/ELMO-1245) |
| Feature Updated | * None. |
| Feature Removed | * None |
| Specific instructions to QA (if any) | 1. Need a change in SPM-config services in order to do http lebowski 2.x or 3.0. 2. Lebowski-tolerence field should be set to 2 for 2.x and 3 for 3.0. 3. Video-bitrate-lan, video-bitrate-wan fields should contain only one bitrate. The bitrate mentioned in this field will be the max bitrate lebowski can achieve. 4. No change in lebowski resolution table for HLS. It is same as ASF. |
| Classification | * Apple HLS with Lebowski |
| Dependency/  Environment /  Component | Boot loader version: 012  DSP Firmware Version:0.6.6 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | None |

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| Version  Date | 2.01.220  06/21/2011 |
| Release Candidate | **Beta Candidate** |
| Location of Release | [\\inof1fs1.slingmedia.com\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_06\_21\_V2\_01\_220](file:///\\inof1fs1.slingmedia.com\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_06_21_V2_01_220)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2011_06_21_V2_01_220/>  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.220 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc – “1073763591”, size in bytes –** “**7847488”**  **2.1.221 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc –**  **“-1281630153”, size in bytes -** “**7847488”** |
| Base version | 2.1.190 Trunk |
| Known Issues | * While Air-playing data loss, AV out of sync may be expected. * Box might take around 30seconds to be detected in MTW after the network LED is up * SBPROHDDEV-90 : Box is not getting connected over SPTV client with IE 8 browser, Throwing HTTP Error each time(Inconsistent) |
| Fixed Issues | * SBPROHDDEV-55 : Bitrate is getting dropped from 4000 to 632 on changing channel and switching video input on i-Pad(iOS 4.3.2) device * SBPROHDDEV-65 : Last known bitrate is not remembered on i-Pad and i-Phone after multiple Connect-Disconnect * SBPROHDDEV-59 : AV goes out of sync for a second(video leading audio) after resolution changes from VGA to QVGA and viceversa while streaming on i-Pad(iOS v4.3.2) * SBPROHDDEV-60 : Stuttering audio/AV freeze/Buffering wheel is getting displayed after resolution transition from VGA to QVGA and viceversa while streaming on i-Pad(iOS 4.3.2)(Inconsistent) * ELMO-1055 : Slingbox disconnects on changing the channel multiple times (3-5) times on I-Phone on Antenna Analog input .Inconsistent(Observed 3 out of 5 attempts) * ELMO-1318 : Connection is getting lost on changing channel multiple times(3-5 times) continuously on i-phone and i-Pad HLS path(Single bitrate) * ELMO-1300 : Channel change is taking more time compared to last GM(2.1.90) on i-Phone and i-Pad HLS path * ELMO-1297 : Video input switch is taking more time compared to last GM(2.1.90) on i-Phone and i-Pad HLS path * ELMO-1217 : Box reboots when we try to connect over PC WBSP,after removing the netwok cable and reconnecting it (After connection lost message)while streaming over HTTP client (I-Phone).And in the same state from HTTP client box is not getting connected * ELMO-1232 : During transition of bitrates to lower values few frames repeat themselevs (Data of 2-3 seconds) on I-Phone and I-Pad. * ELMO-1316 : SPM remains in blank screen with buffering wheel if tried to take over the conflict when "Auto send select" settings is ON. This is observed on iPhone and iPad both. * ELMO-1060 : HTTP:SPM remains in blanks screen with standard wheel if the network connection of the SB is removed & connected back after 15 seconds. * ELMO-1216 : HTTP lebowski takes 25 to 30 seconds more when compared to asf lebowski to reach maximimum bitrate. * ELMO-1100 : Video is very jeky while streaming on I-Phone(native Player) * SBPROHDDEV-47 : Airplay: Connection is getting lost on changing channel from Audio only to AV and viceversa while streaming on Apple TV through Airplay * SBPROHDDEV-46 : Airplay: Connection is getting lost on changing channel from Audio only to AV and viceversa while streaming on Apple TV through Airplay * ELMO-1317 : Green horizontal line is found on the top of the screen on iPhone and iPad with 1080i source – consistent * SBPROHDDEV-16 : HLS - Bufferring wheel with a blank video is observed on starting on iPhone with lebo 2.7 on TCP - Inconsistently ( Observed 4 out of 10 times ) * SBPROHDDEV-81 : Bitrate is getting dropped and hence resolution also drops after multiple channel change(3-4 times) while streaming on i-Pad and i-Phone * ELMO-1312 : Slingbox reboots after streaming for about ~5 to 10 minutes over AirPlay (Not observed with SPM iPad 1.2 and iPhone 2.2) * SBPROHDDEV-15 : Box is getting disconnected on changing multiple channels on I-Phone and I-Pad – Consistent * ELMO-1325 : Pro HD 2.1.170 Video lost (black screen) on switching between HD /SD channels – QAM * SBPROHDDEV-43 : Streaming on TV thru airplay got disconnected when we send multiple IR commands * ELMO-1288 : Slingbox reboots if the user switches the input from HD to SD while Airplaying on Apple TV. * SBPROHDDEV-45 : Ghosting video is getting displayed on i-Phone after changing HQ to SQ multiple times while Airplaying * SBPROHDDEV-44 : Garbled video is getting displayed on i-Pad on changing HQ to SQ multiple times while Airplaying * ELMO-1285: SNP: ProHD not updating SPARCS and analytics for many days, reboot does not help. * ELMO -1266: SNP: Timeout on connected [but no data received] sockets should be increased from 10 to 30 seconds. * SBPROHDDEV-77 : Box is getting rebooted in 3,5,10 mins after boot up on connecting it to a NATPMP router and WAN cable is not connected to the router - Consistent * SBPROHDDEV-78 : RVSC - Box reboot is observed after periodic WAN IP check - Consistent * SBPROHDDEV-79 : RVSC : Periodic port check is failing on NATPMP router, however RVSC is successful – Consistent * Router specific issue of RVSC in Linksys WRT54GL add port is fixed. * ELMO-1342 : SNP: DNS Server like 4.2.2.1 is not used as DNS Server IP for static setup * SBPROHDDEV-48 : Delay RVSC in case SPARCS connection fails at box boot up time. * SBPROHDDEV-48 : [SNP : Slingbox is not getting discovered until hard reset after upgrading the firmware from 2.1.190 to 2.1.192 when the box is manually configured for remote viewing and the box is in static IP with fw v 2.1.190 - Consistent](https://jira.slingmedia.com/browse/SBPROHDDEV-75) * SBPROHDDEV-93 : Interlacing is observed on Composite and S-Video on all Clients – Consistent * SBPROHDDEV-86 : Sling Player application is crashing after changing video input while streaming on Win-7 silver light client * SBPROHDDEV-87 : Not able to connect box on Google TV, showing "Authentication is required" message after connecting box * SBPROHDDEV-88 :Not able to change channel while streaming on Win-7 silverlight client |
| Feature Added | * ELMO-1245 : [SNP: 4.2.2.1 is used as DNS for DHCP setup](https://jira.slingmedia.com/browse/ELMO-1245) |
| Feature Updated | * None. |
| Feature Removed | * None |
| Specific instructions to QA (if any) | 1. Need a change in SPM-config services in order to do http lebowski 2.x or 3.0. 2. Lebowski-tolerence field should be set to 2 for 2.x and 3 for 3.0. 3. Video-bitrate-lan, video-bitrate-wan fields should contain only one bitrate. The bitrate mentioned in this field will be the max bitrate lebowski can achieve. 4. No change in lebowski resolution table for HLS. It is same as ASF. |
| Classification | * Apple HLS with Lebowski |
| Dependency/  Environment /  Component | Boot loader version: 012  DSP Firmware Version:0.6.6 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | None |

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| Version  Date | 2.01.210  06/15/2011 |
| Release Candidate | **CM,GM – 3P and 5P** |
| Location of Release | [\\inof1fs1.slingmedia.com\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_06\_15\_V2\_01\_210](file:///\\inof1fs1.slingmedia.com\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_06_15_V2_01_210)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2011_06_15_V2_01_210>  **2.1.210 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “430397493”, size in bytes -7811648**  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.211 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc –**  **“1582655499”, size in bytes - 7811648** |
| Base version | 2.1.190 Trunk |
| Known Issues | * SBPROHDDEV-84 : Box reboot was observed once when switching from SA3 to Watch after successful manual RV. On connecting the box on Watch, it connected over RELAY on LAN - Observed Once |
| Fixed Issues | * ELMO-1350: Customer Slingboxes not appearing on LAN * ELMO-1352: Customer Slingboxes not appearing on LAN * SBPROHDDEV-48: Delay RVSC in case SPARCS connection fails at box boot up time. * SBPROHDDEV-75: SNP : Slingbox is not getting discovered until hard reset after upgrading the firmware from 2.1.190 to 2.1.192 when the box is manually configured for remote viewing and the box is in static IP with fw v 2.1.190 - Consistent |
| Feature Added | * None |
| Feature Updated | * None. |
| Feature Removed | * None |
| Specific instructions to QA (if any) | * **Default firmware upgrade is enabled for this release.** |
| Classification | * RVSC and SPTV. |
| Dependency/  Environment /  Component | Boot loader version: 012  DSP Firmware Version:0.6.6 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | None |

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| Version  Date | 2.01.190  05/20/2011 |
| Release Candidate | **CM,GM – 3P and 4P** |
| Location of Release | [\\inof1fs1.slingmedia.com\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_04\_27\_V2\_01\_190](file:///\\inof1fs1.slingmedia.com\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_04_27_V2_01_190)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2011_04_27_V2_01_190/>  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.190 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “1824239598”, size in bytes -7811136**  **2.1.191 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc –**  **“-323235362”, size in bytes - 7811136** |
| Base version | 2.1.170 Trunk |
| Known Issues | * Box might take around 30seconds to be detected in MTW after the network LED is up |
| Fixed Issues | * ELMO-[1322](https://jira.slingmedia.com/browse/ELMO-1249): 'Connection lost' message pops up if the user selects a program from EPG after streaming over Relay for ~15minutes. * ELMO-[1320](https://jira.slingmedia.com/browse/ELMO-1249): RVSC: Slingbox configured with RVSC is updating SPARCS on every 5 minutes interval. This will increase load on SPARCS. * SBPROHDDEV-48: Delay RVSC in case SPARCS connection fails at box boot up time. |
| Feature Added | * None |
| Feature Updated | * None. |
| Feature Removed | * None |
| Specific instructions to QA (if any) | * **Default firmware upgrade is enabled for this release.** |
| Classification | * RVSC and SPTV. |
| Dependency/  Environment /  Component | Boot loader version: 012  DSP Firmware Version:0.6.6 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | None |

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| Version  Date | 2.01.170  04/27/2011 |
| Release Candidate | **CM – 3P and 4P, GM - SPTV and RVSC** |
| Location of Release | [\\inof1fs1.slingmedia.com\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_04\_27\_V2\_01\_170](file:///\\inof1fs1.slingmedia.com\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_04_27_V2_01_170)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2011_04_27_V2_01_170/>  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.170 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “237033253”, size in bytes - 7809088**  **2.1.171 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc –**  **“-1892683141”, size in bytes - 7809088** |
| Base version | 2.1.150 Trunk |
| Known Issues | * None |
| Fixed Issues | * ELMO-[1249](https://jira.slingmedia.com/browse/ELMO-1249): [SNP: ProHD does not detect broken MSG connection](https://jira.slingmedia.com/browse/ELMO-1249). * [ELMO-1271](https://jira.slingmedia.com/browse/ELMO-1271): [For CBFU analytics, "upgrade\_finished" carries fw download timestamp where as the new field "download\_time" indicates actual fw download time](https://jira.slingmedia.com/browse/ELMO-1271). * ELMO-1276: HLS Airplay Streaming Failure due to IP check. * SBPROHDDEV-35: RVSC:Slingbox fails to detect wanip change & hence fails to initiate RVSC check when connected to a NAT/PMP router. * SBPROHDDEV-36: Conflicted port is not suitably updated by rvsc module to config module & hence slingbox shows wrong port during discovery on Slingplayer whenever port clash happens during rvsc check. * SBPROHDDEV-40: RVSC:Pro HD v2.1.160- Periodic check for unconfigured RVSC slingbox is done by CFG router instead of RVSC module. * SBPROHDDEV-39: [RVSC:Slingbox update wrong TCP capability to sparcs whenever RVSC kicks in due to wanIP change.](https://jira.slingmedia.com/browse/SBPROHDDEV-39) * Reboot issue when incorrect fields were selected in config service for RVSC configuration. |
| Feature Added | * Bandwidth tests for AUSTIN client. |
| Feature Updated | * Firmware: flash write protect enabled during bootup and whenever write/erase is needed, that time alone disabled the write protection. * Bootloader: Enabled the write protection all through. * RVSC: Initiate RVSC cycle every boot up time for an Unconfigured box. * Random interval between 18- 24 hrs is taken at boot up time to contact config service for RVSC params update. * RVSC analytics logs being sent to PROD server. * Allow streaming from WAN even if "wan access" flag is disabled. Wan access disable option is not possible from 2.1.150 fw onwards, in other words even if user tries to disable remote viewing from SA2.0, box won’t honor disable option. Hence remote viewing is always possible. * HLS – Lebowski and Relay support is disabled. |
| Feature Removed | * None |
| Specific instructions to QA (if any) | * **Please take 2.1.90 box with remote viewing disabled and upgrade to 2.1.170 and see whether WAN streaming (RVSC/SNATT/RELAY) works or not, expected behavior is WAN streaming should work.** * **HLS – Lebowski, Relay is disabled in 2.1.170 release, even though feature wise 2.1.170 is similar to 2.1.90, HLS functionality needs to be tested thoroughly.** * **Default firmware upgrade is enabled for this release.** |
| Classification | * RVSC and SPTV. |
| Dependency/  Environment /  Component | Boot loader version: 012  DSP Firmware Version:0.6.6 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | None |

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| Version  Date | 2.01.150  03/25/2011 |
| Release Candidate | **Beta: SPTV and RVSC**  **CM: 4P US & UK board**  **Internal: HLS** |
| Location of Release | [\\inof1fs1.slingmedia.com\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_03\_25\_V2\_01\_150](file:///\\inof1fs1.slingmedia.com\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_03_25_V2_01_150)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2011_03_25_V2_01_150/>  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.150 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “1881187409”, size in bytes - 7800896**  **2.1.151 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc –**  **“-88698023”, size in bytes - 7800896** |
| Base version | 2.1.130 Trunk |
| Known Issues | - |
| Fixed Issues | * ELMO-1251 - Austin flash, power off/on through IR is not showing up the new frame content * ELMO-1235 - Audio video Jerk is observed on DVBT (SD MPEG2nH264.trp-channel3) after few Mints (5 -10 mints) of streaming over Austin client. * ELMO-1248 - SNP: TCP capability 4 but connection fails even though box is alive. * ELMO-1247 - SNP: Allow streaming from WAN even if "wan access" flag is disabled. * ELMO-1248 - SNP: TCP capability 4 but connection fails even though box is alive. * ELMO-1245 - SNP: 4.2.2.1 is used as DNS for DHCP setup. * ELMO-1246 - SNP: Last resolved MSG IP is not used if MSG DNS resolution fails. * SBPROHDDEV-3 - Slingbox is getting disconnected after around 10 ~ 30 mins of streaming while streaming on RELAY on I-Phone and buffering wheel is observed very frequently. The box couldn't be re-connected until power cycle - Inconsistent ( Observed 2 out of 4 times). * SBPROHDDEV-2 - AV freeze and Buffering wheel is getting displayed after 1hr of streaming over iPad SPM app v1.2.1 and 'Not enough free space in FIFO-Video FIFO full' is getting displayed in the Box logs * SBPROHDDEV-4 - HLS-Relay : While streaming from VGA if the stream switches to QVGA then buffering wheel is seen for every 2-3 seconds - Consistent. * SBPROHDDEV-8 - Sling box is always getting started from 800kbps on video input switch over iPad, so downgrade counter is getting triggered however it gets reset since bit rate is picking up more than RDP threshold value (ie 800 kbps) * SBPROHDDEV-9 - In WAN alone, SPM iPad, iPhone does not remember the last streamed video resolution when user switches the video input. It switches the video resolution from VGA to QVGA when the inputs are changed. * SBPROHDDEV-5 - Video resolution is getting downgraded from VGA to QVGA, when video input switch is done from valid video source (Component) to Coax with no valid signal. * SBPROHDDEV-6 - Unable to scan for Indian channels ( Coaxial Input ) with Pro HD v2.1.130 * SBPROHDDEV-11 - RVSC:Router discovery by slingbox fails when connected to a NAT/PMP router. * SBPROHDDEV-26 - Scanning time on 4P Pro HD board is twice longer then on 3P - ATSC AND QAM * SBPROHDDEV-28 - RVSC: Control got struck in infinet loop while periodic RVSC port map check.This issue is observed when Slingox is connected to Linksy router where port addition was failing consitently. |
| Feature Added | * Config services support added for RVSC.   RVSC gets the configuration data from the config server now on boot-up and every periodic check. |
| Feature Updated | - |
| Feature Removed | * None |
| Specific instructions to QA (if any) | 1. Default firmware upgrade is enabled for this release. 2. HLS: Last remembered bit rate is supported.   Player will start from last remembered bitrate. |
| Classification | RVSC and HLS. |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.6.6 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Please use SPM iPhone 2.2.1/ iPad 1.2.1release version for testing HLS. |

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| Version  Date | 2.01.130  03/08/2011 |
| Release Candidate | **Internal (To Product QA)** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_03\_08\_V2\_01\_130](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_03_08_V2_01_130)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2011_03_08_V2_01_130/>  Below firmware created additionally to cover CBFU test scenarios. It is available in the same path above.  **2.1.130 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “-1099448726”, size in bytes - 7813696**  **2.1.131 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc –**  **“-1353002137”, size in bytes - 7813696** |
| Base version | 2.1.110 Trunk |
| Known Issues |  |
| Fixed Issues | * ELMO-1212 - Audio lagging video by 7-40seconds while streaming on bad network on I-Phone and I-Pad. * ELMO-1213 - Elmo:Coax Scanning via setup 3.0 fails on proH 4P baords,Setup assitant shows a page saying channels found '0' immediately when user select scannning option for ATSC,QAM & DVBT.] * ELMO-1223 - Box couldn’t reconnect to the client after 12hrs streaming with flash client in ATSC channel. |
| Feature Added | * Relay HLS support added. * Apple HTTP LEBOWSKI 3.0 supported. * Analytics support added for RVSC. |
| Feature Updated | * Lebowski 2.x optimizations included. Remembering bitrate logic is removed for apple HLS. So every connect, streaming will start from default bitrate and resolution. * 4P – Analog RF missing audio issue fixed. * 4P – scan time optimized. |
| Feature Removed | * None |
| Specific instructions to QA (if any) | Default firmware upgrade is enabled for this release.   1. Please do complete test on all streaming paths and RVSC. 2. Please do complete test of http lebowski. All the lbsk 2.x test cases we do for asf should be covered for http lbsk also. Please cover LAN, WAN, 3G with ipad, ipod/iphone. 3. Need a change in SPM-config services in order to do http lebowski 2.x or 3.0. 4. Lebowski-tolerence field should be set to 2 for 2.x and 3 for 3.0. 5. Video-bitrate-lan, video-bitrate-wan fields should contain only one bitrate. The bitrate mentioned in this field will be the max bitrate lebowski can achieve. 6. No change in lebowski resolution table for HLS. It is same as ASF. Only thing is HLS lebowski 3.0 won’t remember last session bitrate & resolution. So every streaming connection it will start from default. i.e in LAN it will be the client requested resolution & in WAN it will be QVGA. 7. HLS Relay will work only with btcmsg.slingmedia.com. |
| Classification | * Lebowski 3.0, HLS Relay |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.6.6 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Please use SPM iPhone 2.2.1/ iPad 1.2.1release version for testing HLS. |

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| Version  Date | 2.01.110  02/03/2011 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011\_02\_03\_V2\_01\_110](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2011_02_03_V2_01_110)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2011_02_03_V2_01_110/>  Following 2 firmwares are created additionally to cover various CBFU test scenarios. They are available in the same path above.  **2.1.110 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “144329176”, size in bytes - 7785536**  **2.1.111 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc –**  **“676784365”, size in bytes - 7785536**  **2.1.112 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc – “-150428904”, size in bytes - 7785536** |
| Base version | 2.1.90 Trunk |
| Known Issues | 1. 4P – PAL cable scan issues - Missing audio for few channels. 2. 4P – scan time is slightly more than 3P timings. 3. Apple HTTP – With iPad, in bad networks, random AV sync issue is seen in ATSC. 4. RVSC – NATPMP is NOT supported. |
| Fixed Issues | * ELMO-1118 – A white bar is coming on the right side of the video for some channels(6 channels) * ELMO-1163 – Mobile device reboot or App crash is observed on connecting the box for the first time after scanning for DVBT or ATSC - Consistent |
| Feature Added | * Remote viewing self config (RVSC) without analytics and config service support. * Apple HTTP LEBOWSKI 2.x supported. * 4P: New Tuner TDA18272 and IF demodulator TDA8296 supports added. |
| Feature Updated | * ATSC - As per standard ATSC supports only AC3 audio format, But firmware was having support for MPEG1 and MPEG2. Because of licensing issue we support MPEG1 and MPEG2 for DVBT only. Hence ATSC case support is commented. * Streaming Memory optimizations done to improve the HLS streaming experience. * Rebuilt the Encoder library and updated in CodecsAndAlgos folder.   Fix for TS buffer Occupancy going high for Full HD Streams. |
| Feature Removed | * None |
| Specific instructions to QA (if any) | **Default firmware upgrade is enabled for this release.**   1. **Please do complete test on all streaming paths and RVSC – UPNP only.** 2. **Please do complete test of http lebowski. All the lbsk 2.x test cases we do for asf should be covered for http lbsk also. Please cover LAN, WAN, 3G with ipad, ipod/iphone.** 3. **Need a change in SPM-config services in order to do http lebowski 2.x.** 4. **Lebowski-tolerence field should be set to 2.** 5. **Video-bitrate-lan, video-bitrate-wan fields should contain only one bitrate. The bitrate mentioned in this field will be the max bitrate lebowski can achieve.** |
| Classification | * RVSC, HTTP Lebowski 2.x |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.6.6 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 2.01.090  11/30/2010 |
| Release Candidate | **Beta, GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_11\_30\_V2\_01\_90](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_11_30_V2_01_90)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_11_30_V2_01_90/>  Following 2 firmwares are created additionally to cover various CBFU test scenarios. They are available in the same path above.  **2.1.90 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “**-2059820650**”, size in bytes - 7599168**  **2.1.91 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc –**  **“**-303648977**”, size in bytes - 7599168**  **2.1.92 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc – “**225194561**”, size in bytes - 7598656** |
| Base version | 2.1.80 Trunk |
| Known Issues | 1. Video jerk will be observed on all video bitrates less than 500 Kbps because of DSP changes to adhere the bit rate requirement. 2. Unstable on 3G (On WAN actual bandwidth should be measured against the published bitrates) 3. When media player runs out of render buffer, buffering wheel is displayed, audio-video freeze is observed, however, streaming resumes after an IR operation with ios version 4.0. With ios version 4.1 streaming recovers automatically. |
| Fixed Issues | 1. [ELMO-1176](https://jira.slingmedia.com/browse/ELMO-1176)– Ghosting audio is coming while streaming on Win-Mo, Blackberry and i-phone for DVBT video input(H.264/HEAAC source) when audio settings set to left only or right only 2. [ELMO-855](https://jira.slingmedia.com/browse/ELMO-855) - Green horizontal thick line is seen on top of screen while streaming Component(480p) on Catcher, PC and MAC flash player - Refer screenshot - Consistent |
| Feature Added | * None |
| Feature Updated | * SPS/PPS header inclusion to resolve win7 wbsp plug in crash or video jerk issue when doing seek on time shift buffer * CBFU – Other than Port 80 support for FDS. |
| Feature Removed | * None |
| Specific instructions to QA (if any) | **Please use the latest iOS update 4.1 (iPhone and iPod) for testing, with this version occurrence of the AV freeze issue is reduced. (Freeze and spinning wheel are still possible, but streaming will recover)**   1. In config services, under client capability set Vmin to 40kbps. |
| Classification | Apple HTTP Live Streaming Enabled |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.6.4 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Please use SPM release version 2.0.19 & above to test Apple HTTP live streaming on the firmware. |

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| --- | --- |
| Version  Date | 2.01.080  11/16/2010 |
| Release Candidate | **Beta - Apple HTTP, Beta - India launch, GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_11\_16\_V2\_01\_80](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_11_16_V2_01_80)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_11_16_V2_01_80/>  Following 2 firmwares are created additionally to cover various CBFU test scenarios. They are available in the same path above.  **2.1.80 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “224224846”, size in bytes - 7598144**  **2.1.81 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “-464543379”, size in bytes - 7598144**  **2.1.82 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  **Crc – “-1128009527”, size in bytes - 7598144** |
| Base version | 2.1.70 Trunk |
| Known Issues | 1. Video jerk will be observed on all video bitrates less than 500 Kbps because of DSP changes to adhere the bit rate requirement. 2. Unstable on 3G (On WAN actual bandwidth should be measured against the published bitrates) 3. When media player runs out of render buffer, buffering wheel is displayed, audio-video freeze is observed, however, streaming resumes after an IR operation with ios version 4.0. With ios version 4.1 streaming recovers automatically. |
| Fixed Issues | * ELMO-965 – prohd dropping IR commands. To be verified with motorolla DCT3416 |
| Feature Added | * None |
| Feature Updated | 1. Added HVGA streaming support in apple http streaming. |
| Feature Removed | 1. Http streaming through browser is disabled |
| Specific instructions to QA (if any) | **Please use the latest iOS update 4.1 (iPhone and iPod) for testing, with this version occurrence of the AV freeze issue is reduced. (Freeze and spinning wheel are still possible, but streaming will recover)**   1. In config services, under client capability set Vmin to 40kbps. |
| Classification | Apple HTTP Live Streaming Enabled |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.6.4 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Please use SPM release version 2.0.19 & above to test Apple HTTP live streaming on the firmware. |

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| --- | --- |
| Version  Date | 2.01.070  11/10/2010 |
| Release Candidate | **Beta - Apple HTTP, Beta - India launch, GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_11\_10\_V2\_01\_70](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_11_10_V2_01_70)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_11_10_V2_01_70/>  Following 2 firmwares are created additionally to cover various CBFU test scenarios. They are available in the same path above.  **2.1.70 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “-1686337165”, size in bytes - 7597120**  **2.1.71 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **Crc – “-836082309”, size in bytes - 7597120**  **2.1.72 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.**  Crc – “1863963735”, **size in bytes -** 7596608 |
| Base version | 2.1.60 Trunk |
| Known Issues | 1. Video jerk will be observed on all video bitrates less than 500 Kbps because of DSP changes to adhere the bit rate requirement. 2. Unstable on 3G (On WAN actual bandwidth should be measured against the published bitrates) 3. When media player runs out of render buffer, buffering wheel is displayed, audio-video freeze is observed, however, streaming resumes after an IR operation with ios version 4.0. With ios version 4.1 streaming recovers automatically. |
| Fixed Issues | * . [ELMO-1117](https://jira.slingmedia.com/browse/ELMO-1117) - AV is not coming(only spots are coming)for some of channels(24 channels),when scanned for INDIA(AV is coming properly on TV for same channels) * [ELMO-1119](https://jira.slingmedia.com/browse/ELMO-1119) - Pro-HD is scanning less channels compared to that of TV which scanning for INDIA * [ELMO-1003](https://jira.slingmedia.com/browse/ELMO-1003) - Austin: Pro HD v2.00.70-Streaming LED of Box glows when network cable is removed from the box while streaming on "Austin Flash 10 client" and streaming LED goes off after Network cable connecting back. * [ELMO1153](https://jira.slingmedia.com/browse/ELMO-1153) - Client throws the message of url undefined on Austin flash MAC and PC client on connecting the box on TCP WAN and Relay * [ELMO1143](https://jira.slingmedia.com/browse/ELMO-1143) - Unable to stream video with Austin Player v1.03 in Mac and PC-with deafult settings. * [ELMO1158](https://jira.slingmedia.com/browse/ELMO-1158) - Austin: Digital channels are missing in the channel list response to client * [ELMO1040](https://jira.slingmedia.com/browse/ELMO-1040) - Austin: In relay component, set TCP Keep alive for reserved connection. |
| Feature Added | * None |
| Feature Updated | 1. Added HE-AAC decoder support. 2. Apple HTTP: improve HTTP streaming performance on WAN(TCP and 3G) |
| Feature Removed | 1. Http streaming through browser is disabled |
| Specific instructions to QA (if any) | **Please use the latest iOS update 4.1 (iPhone and iPod) for testing, with this version occurrence of the AV freeze issue is reduced. (Freeze and spinning wheel are still possible, but streaming will recover)**   1. In config services, under client capability set Vmin to 40kbps. |
| Classification | Apple HTTP Live Streaming Enabled |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.6.4 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Please use only SPM release version 2.0.19 to test Apple HTTP live streaming on the firmware. |

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| --- | --- |
| Version  Date | 2.01.060  10/12/2010 |
| Release Candidate | **Beta 3, GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_10\_12V2\_01\_060](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_10_12V2_01_060)  [ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010\_10\_12V2\_01\_060](ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_10_12V2_01_060%20)  Following 2 firmwares are created additionally to cover various CBFU test scenarios. They are available in the same path above.  **2.1.61 – Current image with cloud based firmware upgrade support with default firmware upgrade enabled.**  **2.1.62 – Current image with cloud based firmware upgrade support with default firmware upgrade disabled.** |
| Base version | 2.1.50 Trunk |
| Known Issues | 1. Video jerk will be observed on all video bitrates less than 500 Kbps because of DSP changes to adhere the bit rate requirement. 2. Unstable on 3G (On WAN actual bandwidth should be measured against the published bitrates) 3. When media player runs out of render buffer, buffering wheel is displayed, audio-video freeze is observed, however, streaming resumes after an IR operation with ios version 4.0. With ios version 4.1 streaming recovers automatically. |
| Fixed Issues | * ELMO-1132- Box is getting rebooted on connecting to any mobile client with 1080i ATSC/DVBT source. * ELMO-1129- Video macro block are observed while streaming from  DVBT video input. * ELMO-1134-Pro\_HD:Slingbox is getting rebooted when resolution is set to 256x192 (minimal) for ATSC video input which has source resolution 1920x1080. Observed with PC and MAC WBSP. * ELMO-1135-Bitrate is not picking up on ATSC input if bitrate is low on one machine(MAC WBSP when connected wirelessly and the macine is away from router) and the conflict is taken by other machin(WIN WBSP) within same LAN. * ELMO-1133-Only approximately 500kbps maximum average bitrate while streaming video from a Pro HD FW 2.1.50 and Mac WBSP plug-in 3.1.5.80 in Relay Wired WAN connection with ATSC input.(Major/Consistent) * ELMO-1130-FPS fluctuates between 12-21 and not going above 21fps while streaming from DVBT video input(Major/Consistent) * ELMO-1136-Pro HD 2.1.50 Low streaming bitrate on LAN(Major/Consistent) * ELMO-1137 - Pro hD v2.1.50:Apple HTTP Streaming:Box is not getting connected on HTTP clients (iPhone v2.0.19 & iPad v2.0.3) with TCP connection, if source connected is DVBT audio only channel for Pro HD EU / QAM Audio only channel for Pro HD US box. * ELMO-1138 - Pro HD v2.1.50:Apple HTTP Streaming-Audio is not coming on HTTP Clients (iPhone v2.0.19 & iPad v2.0.3) when channel changed from audio-video channel to audio only channel on DVBT source. * Blackberry mobiles which supports WMV\_Simple Profile related issue also fixed. * Austin client will show the box status correctly in the discovery window. The box busy state is not updated correctly by the box in the discovery msg, which is corrected. |
| Feature Added | * CBFU * Lebowski 3.0 : HVGA <-> QVGA switch with 15 fps support   HVGA bit rate Lebowski tables for Pro-HD.   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **MAX res HVGA @ 30** | | | | | | | | **Dest Codec** | **H264** | | | **WMV** | | | | Res | RDP | RUP | Vmin | RDP | RUP | Vmin | | QVGA | NA | 600 | 100 | NA | 800 | 100 | | HVGA | 500 | NA | 400 | 600 | NA | 500 | |  |  |  |  |  |  |  | |  |  |  |  |  |  |  | | **MAX res HVGA @ 15** | | | | | | | | **Dest Codec** | **H264** | | | **WMV** | | | | Res | RDP | RUP | Vmin | RDP | RUP | Vmin | | [QVGA@15](mailto:QVGA@15) | NA | 400 | 100 | NA | 600 | 100 | | [HVGA@15](mailto:HVGA@15) | 300 | NA | 250 | 400 | NA | 300 | |
| Feature Updated | 1. Austin : fixed streaming related issue. 2. Austin : ELMO-1040-Austin: In relay component, set TCP Keep alive for reserved connection. 3. Lebowski : Last streaming bitrate rememberence is ignored for relay streaming. Every relay streaming session will start with default bitrate. |
| Feature Removed | 1. Http streaming through browser is disabled |
| Specific instructions to QA (if any) | **Please use the latest iOS update 4.1 (iPhone and iPod) for testing, with this version occurrence of the AV freeze issue is reduced. (Freeze and spinning wheel are still possible, but streaming will recover)**   1. In config services, under client capability set Vmin to 40kbps. |
| Classification | Apple HTTP Live Streaming Enabled |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.6.3 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Please use only SPM release version 2.0.19 to test Apple HTTP live streaming on the firmware. |

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| Version  Date | 2.01.050  10/01/2010 |
| Release Candidate | **Beta 2** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_10\_01V2\_01\_050\_Apple](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_10_01V2_01_050_Apple)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_10_01V2_01_050_Apple> |
| Base version | Trunk |
| Known Issues | 1. On ATSC, try only with valid channels. 2. Video jerk will be observed on all video bitrates less than 500 Kbps because of latest DSP changes to adhere the bit rate requirement. 3. Unstable on 3G (On WAN actual bandwidth should be measured against the published bitrates) 4. When media player runs out of render buffer, buffering wheel is displayed, audio-video freeze is observed, however, streaming resumes after an IR operation with ios version 4.0. With ios version 4.1 streaming recovers automatically. |
| Fixed Issues | * ELMO-1046 - A blank screen with audio is coming on changing the input having valid audio video souce connetced from the input having the no audio video source connected * ELMO-1078 - Auto mode for Aspect Ratio displays incorrect aspect ratio for HD (16:9) stream. Displays as 4:3. (Player also need to fix from their side – So check with client team for the correct player). * ELMO-1066 - Streaming with audio only after switching from no video input to a valid video source * ELMO-1059 - Blank screen is observed on removing te video & audio cable & plugging it back. * ELMO- 1087 - Unable to connect box on any client after taking conflict from iPad to iPad multiple times (2 times) and recovered only after manually rebooting the Box * ELMO-1048 - Http: After taking conflict for about 3 times, 1 of the client (iPhone) is not able to connect to the slingbox. A message "Slingplayer cannot connect...." message pops up. |
| Feature Added |  |
| Feature Updated | 1. NONE |
| Feature Removed | 1. NONE |
| Specific instructions to QA (if any) | **Please use the latest iOS update 4.1 (iPhone and iPod) for testing, with this version occurrence of the AV freeze issue is reduced. (Freeze and spinning wheel are still possible, but streaming will recover)**   1. In config services, under client capability set Vmin to 40kbps. 2. In Apple HTTP standalone server mode please wait for one minute before trying to reconnect again. 3. Please note that the firmware will work only with SPM release version 2.0.17 and above due to changes in SB-SP messaging. 4. Test AV input switch, No video signal, digital channel switch with new sling player which will be released on Monday (04-Oct-2010).   Streaming Directly from Apple Media Player:\   * To stream from the iPhone, iPod touch or iPad, open the browser in the client and enter the following URLs:   To invoke in multi bitrate mode: http://<IP:port>/12345-00.m3u8  To invoke in single bitrate mode: http://<IP:port>/12345-00/<BR><q/v>.m3u8  Where  IP: Is the IP of the Pro-HD box.  Port: TCP port configured  BR: Is the requested bit rate in kbps  q/v: used to choose VGA or QVGA resolution for streaming. (Only for iPad)   * M3u8 Variant list publishes bit rates: 232, 332, 432, 532, 632, 732, 832 kbps where 32kbps is for audio and rest for video. * For iPad, to stream 2Mbps VGA URL to be used:   http://192.168.1.100:5001/12345-00/2000v.m3u8   * To stream 1Mbps QVGA URL to be used:   http://192.168.1.100:5001/12345-00/1000q.m3u8   * To stream from safari on Mac (snow leopard), an html page with “video src” tag has to be used. * ProHD defaults to the last selected input and streams from the same. To select a different input please use the SlingPlayer. * The box times out after approximately one minute of no activity.   When the browser is closed, box returns to the idle state only after the no activity timeout occurs (60 sec) during which time it will be shown as busy. |
| Classification | Apple HTTP Live Streaming Enabled |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.6.1 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Please use only SPM release version 2.0.17 to test Apple HTTP live streaming on the firmware. |

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| Version  Date | 2.01.040  09/15/2010 |
| Release Candidate | **Beta 1 (Mainly targeted for DRA app submission to Apple)** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_09\_15V2\_01\_040\_Apple](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_09_15V2_01_040_Apple)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_09_15V2_01_040_Apple> |
| Base version | 2.1.30 (HTTP branch) |
| Known Issues | 1. ATSC path is not supported for HTTP streaming. 2. Split video will be observed with source resolution change. 3. Split video will be observed for test cases which involves no video signal. 4. Video jerk will be observed on all video bitrates less than 500 Kbps because of latest DSP changes to adhere the bit rate requirement. 5. Unstable on 3G (On WAN actual bandwidth should be measured against the published bitrates) 6. When media player runs out of render buffer, buffering wheel is displayed, audio-video freeze is observed, however, streaming resumes after an IR operation with ios version 4.0. With ios version 4.1 streaming recovers automatically. |
| Fixed Issues | * ELMO 1104 : AV is out of sync for 2-3sec(sometimes more than 10-15 sec in case of 832 bitrate)on all video input while streaming over LAN on i-pad and i-phone –Critical  (Inconsistent 8 out of 10 times) |
| Feature Added |  |
| Feature Updated | 1. NONE |
| Feature Removed | 1. NONE |
| Specific instructions to QA (if any) | **Please use the latest iOS update 4.1 (iPhone and iPod) for testing, with this version occurrence of the AV freeze issue is reduced. (Freeze and spinning wheel are still possible, but streaming will recover)**   1. In config services, under client capability set Vmin to 40kbps. 2. In Apple HTTP standalone server mode please wait for one minute before trying to reconnect again. 3. Please note that the firmware will work only with SPM release version 2.0.15 due to changes in SB-SP messaging.   Streaming Directly from Apple Media Player:\   * To stream from the iPhone, iPod touch or iPad, open the browser in the client and enter the following URLs:   To invoke in multi bitrate mode: http://<IP:port>/12345-00.m3u8  To invoke in single bitrate mode: http://<IP:port>/12345-00/<BR><q/v>.m3u8  Where  IP: Is the IP of the Pro-HD box.  Port: TCP port configured  BR: Is the requested bit rate in kbps  q/v: used to choose VGA or QVGA resolution for streaming. (Only for iPad)   * M3u8 Variant list publishes bit rates: 232, 332, 432, 532, 632, 732, 832 kbps where 32kbps is for audio and rest for video. * For iPad, to stream 2Mbps VGA URL to be used:   http://192.168.1.100:5001/12345-00/2000v.m3u8   * To stream 1Mbps QVGA URL to be used:   http://192.168.1.100:5001/12345-00/1000q.m3u8   * To stream from safari on Mac (snow leopard), an html page with “video src” tag has to be used. * ProHD defaults to the last selected input and streams from the same. To select a different input please use the SlingPlayer. * The box times out after approximately one minute of no activity.   When the browser is closed, box returns to the idle state only after the no activity timeout occurs (60 sec) during which time it will be shown as busy. |
| Classification | Apple HTTP Live Streaming Enabled |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.33 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Please use only SPM release version 2.0.16 to test Apple HTTP live streaming on the firmware. |

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| --- | --- |
| Version  Date | 2.01.030  09/09/2010 |
| Release Candidate | **Alpha 3** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_09\_09V2\_01\_030\_Apple](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_09_09V2_01_030_Apple)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_09_09V2_01_030_Apple> |
| Base version | 2.1.20 (HTTP branch) |
| Known Issues | 1. ATSC path is not supported for HTTP streaming. 2. Split video will be observed with source resolution change. 3. Split video will be observed for test cases which involves no video signal. 4. Video jerk will be observed on all video bitrates less than 500 Kbps because of latest DSP changes to adhere the bit rate requirement. 5. Unstable on 3G (On WAN actual bandwidth should be measured against the published bitrates) 6. When media player runs out of render buffer, buffering wheel is displayed, audio-video freeze is observed, however, streaming resumes after an IR operation. |
| Fixed Issues | 1. Video quality has been improved at higher bit rates due to new DSP build. |
| Feature Added | 1. Low bit rate streaming (Video bit rate from 100Kbps onwards) 2. TS Overhead optimization, which results in better video quality in low bitrates (<500Kbps) compared to old releases |
| Feature Updated | 1. NONE |
| Feature Removed | 1. NONE |
| Specific instructions to QA (if any) | 1. In config services, under client capability set Vmin to 40kbps. 2. In Apple HTTP standalone server mode please wait for one minute before trying to reconnect again. 3. Please note that the firmware will work only with SPM release version 2.0.15 due to changes in SB-SP messaging.   Streaming Directly from Apple Media Player:\   * To stream from the iPhone, iPod touch or iPad, open the browser in the client and enter the following URLs:   To invoke in multi bitrate mode: http://<IP:port>/12345-00.m3u8  To invoke in single bitrate mode: http://<IP:port>/12345-00/<BR><q/v>.m3u8  Where  IP: Is the IP of the Pro-HD box.  Port: TCP port configured  BR: Is the requested bit rate in kbps  q/v: used to choose VGA or QVGA resolution for streaming. (Only for iPad)   * M3u8 Variant list publishes bit rates: 232, 332, 432, 532, 632, 732, 832 kbps where 32kbps is for audio and rest for video. * For iPad, to stream 2Mbps VGA URL to be used:   http://192.168.1.100:5001/12345-00/2000v.m3u8   * To stream 1Mbps QVGA URL to be used:   http://192.168.1.100:5001/12345-00/1000q.m3u8   * To stream from safari on Mac (snow leopard), an html page with “video src” tag has to be used. * ProHD defaults to the last selected input and streams from the same. To select a different input please use the SlingPlayer. * The box times out after approximately one minute of no activity.   When the browser is closed, box returns to the idle state only after the no activity timeout occurs (60 sec) during which time it will be shown as busy. |
| Classification | Apple HTTP Live Streaming Enabled |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.33 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Please use only SPM release version 2.0.16 to test Apple HTTP live streaming on the firmware. |

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| Version  Date | 2.01.020  08/31/2010 |
| Release Candidate | **Alpha 2 (Internal Only)** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_08\_31V2\_01\_020\_Apple](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_08_31V2_01_020_Apple)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_08_31V2_01_020_Apple/> |
| Base version | 2.1.10 (HTTP branch) |
| Known Issues | 1. ATSC path is not supported for HTTP streaming. 2. Split video will be observed with source resolution change. 3. Split video will be observed for test cases which involves no video signal. 4. Video bitrates published less than 200kbps are not supported. 5. WAN streaming randomly stops streaming after 10 to 15 mins. 6. Video jerk will be observed on all video bitrates because of latest DSP changes to adhere the bitrate requirement. |
| Fixed Issues | 1. ELMO-1047 Audio video freezes for 50-60 seconds and the box gets disconnected and reconnects again after every 16-20 seconds of streaming on I-PAD using the url. 2. ELMO-1069 [Audio video freezes for 50-60 seconds and the box gets disconnected after 16-20 seconds of streaming on I-PAD](https://jira.slingmedia.com/browse/ELMO-1069) |
| Feature Added |  |
| Feature Updated | 1. Multi bitrate support 2. Ipad streaming |
| Feature Removed | 1. NONE |
| Specific instructions to QA (if any) | 1. In config services, under client capability set Vmin to 40kbps. 2. In Apple HTTP standalone server mode please wait for one minute before trying to reconnect again. 3. Please note that the firmware will work only with SPM release version 2.0.15 due to changes in SB-SP messaging.   Streaming Directly from Apple Media Player:\   * To stream from the iPhone, iPod touch or iPad, open the browser in the client and enter the following URLs:   To invoke in multi bitrate mode: http://<IP:port>/12345-00.m3u8  To invoke in single bitrate mode: http://<IP:port>/12345-00/<BR><q/v>.m3u8  Where  IP: Is the IP of the Pro-HD box.  Port: TCP port configured  BR: Is the requested bit rate in kbps  q/v: used to choose VGA or QVGA resolution for streaming. (Only for iPad)   * M3u8 Variant list publishes bit rates: 232, 332, 432, 532, 632, 732, 832 kbps where 32kbps is for audio and rest for video. * For iPad, to stream 2Mbps VGA URL to be used:   http://192.168.1.100:5001/12345-00/2000v.m3u8   * To stream 1Mbps QVGA URL to be used:   http://192.168.1.100:5001/12345-00/1000q.m3u8   * To stream from safari on Mac (snow leopard), an html page with “video src” tag has to be used. * ProHD defaults to the last selected input and streams from the same. To select a different input please use the SlingPlayer. * The box times out after approximately one minute of no activity.   When the browser is closed, box returns to the idle state only after the no activity timeout occurs (60 sec) during which time it will be shown as busy. |
| Classification | Apple HTTP Live Streaming Enabled |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.32 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Please use only SPM release version 2.0.15 to test Apple HTTP live streaming on the firmware. |

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| Version  Date | 2.01.010  08/17/2010 |
| Release Candidate | **Alpha 1 (Internal Only)** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_08\_17V2\_01\_010\_Apple](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_08_17V2_01_010_Apple)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_08_17V2_01_010_Apple/> |
| Base version | Branch version 2.0.80 (Trunk version 1.4.50) |
| Known Issues | 1. ATSC path is not supported for HTTP streaming. 2. Inconsistent behavior observed with source resolution change. 3. Complete support of multi-bitrate is not present and may not work as expected. |
| Fixed Issues | 1. NONE |
| Feature Added | 1. Apple HTTP Live Streaming |
| Feature Updated | 1. NONE |
| Feature Removed | 1. NONE |
| Specific instructions to QA (if any) | 1. In Apple HTTP standalone server mode please wait for one minute before trying to reconnect again. 2. Please note that the firmware will work only with SPM release version 2.0.15 due to changes in SB-SP messaging.   Streaming Directly from Apple Media Player:\   * To stream from the iPhone, iPod touch or iPad, open the browser in the client and enter the following URLs:   To invoke in multi bitrate mode: http://<IP:port>/12345-00.m3u8  To invoke in single bitrate mode: http://<IP:port>/12345-00/<BR><q/v>.m3u8  Where  IP: Is the IP of the Pro-HD box.  Port: TCP port configured  BR: Is the requested bit rate in kbps  q/v: used to choose VGA or QVGA resolution for streaming. (Only for iPad)   * M3u8 Variant list publishes bit rates: 232, 332, 432, 532, 632, 732, 832 kbps where 32kbps is for audio and rest for video. * For iPad, to stream 2Mbps VGA URL to be used:   http://192.168.1.100:5001/12345-00/2000v.m3u8   * To stream 1Mbps QVGA URL to be used:   http://192.168.1.100:5001/12345-00/1000q.m3u8   * To stream from safari on Mac (snow leopard), an html page with “video src” tag has to be used. * ProHD defaults to the last selected input and streams from the same. To select a different input please use the SlingPlayer. * The box times out after approximately one minute of no activity.   When the browser is closed, box returns to the idle state only after the no activity timeout occurs (60 sec) during which time it will be shown as busy. |
| Classification | Apple HTTP Live Streaming Enabled |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.30 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Please use only SPM release version 2.0.15 to test Apple HTTP live streaming on the firmware. |

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| Version  Date | 2.00.080  06/30/2010 |
| Release Candidate | **Beta1(Beta is only for LAN. Relay is still Alpha Grade).** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_06\_30V2\_00\_080\_Austin](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_06_30V2_00_080_Austin)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_06_30V2_00_080_Austin/> |
| Base version | Branch version 2.0.70 (Trunk version 1.4.50) |
| Known Issues | 1. WMV simple profile – streaming will work only upto QVGA for Silverlight. |
| Fixed Issues | 1. ELMO-998 - Austin:Pro HD v2.00.70-Box reboots on changing video input from no video source connected to valid video source on PC WBSP - Inconsistent 2. ELMO-999 - Austin:Pro-HD v2.0.70: On changing the channel from digital to analog it displays the message of invalid channel number for analog channel for flash client (PC/Mac) 3. ELMO-1004 - Austin ProHD 2.0.70: Browser crashes while streaming audio only channel on QAM - Consistent 4. ELMO-1006 - Austin-Pro HD v2.0.70: Numeric keypad for virtual remote is not working for coax input on Austin clients. 5. ELMO-1005 - Austin-Pro HD v2.0.70:Mobile client (Nokia 5800 xpess music) crashes on channel change and video input change. 6. ELMO-1000 - Austin:Pro-HD v2.0.70: Box is streaming at VGA resolution though the resolution is set to HVGA for all video input for flash (PC/Mac). 7. RTMPE version 4 wasn’t working in older releases. |
| Feature Added | 1. Relay support for Austin(New RC module is integrated with Web Server) 2. Added an additional field(Austin) in CPS. |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | 1. Test with RTMPE/RTMP enabled client on PC ,MAC (LAN,WAN,Wifi) ,Mobile(minimal testing) and DTV. 2. Test SIlverlight with/without encryption support from PC ,MAC. – Minimal testing 3. Test Basic legacy streaming for SUDP , TCP , RELAY & SNATT. 4. Cover all remaining features tests from Austin WinClient which are not provided by Austin flash/silverlight clients. Eg: Dynamic encode params change , video modes change , audio only mode , encoder type change etc. 5. Relay testing for Legacy(PC and mobile-Iphone) and Austin clients 6. Relay testing should be done on PROD and on INT server which has special modifications 7. Test basic SPARCS related control for both Austin & Legacy streaming. 8. Exact clients to be used will be informed during meeting with QA. |
| Classification | Austin |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.29 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.05.110  06/17/2010 |
| Release Candidate | **ProHD-Eu Beta and ProHD-Eu MP** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_06\_17V1\_05\_110](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_06_17V1_05_110)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_06_17V1_05_110/> |
| Base version | 1.05.090 – Last ProHD Release from Eu branch. |
| Known Issues | Transcode path:   1. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-963: Sound starts to make a popping noise after about 15min when viewing the Sling ProHD DVB-T UK Channels |
| Feature Added | None |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | 1. This release is 1.05.090+ELMO-963 fix. 2. DVBT: Ask Phil to test ELMO-963 with live DVBT signal. 3. DVBT: Use Adrian captured latest streams for your testing. 4. Please don’t test ProHD-US functionality with this firmware. |
| Classification | Lebowski 3.0 |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.5.11 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.05.100  06/15/2010 |
| Release Candidate | **ProHD-Eu Beta, ProHD-Eu MP** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_06\_15V1\_05\_100](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_06_15V1_05_100)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_06_15V1_05_100/> |
| Base version | 1.05.090 – Last ProHD Release from Eu branch. |
| Known Issues | Transcode path:   1. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-963: Sound starts to make a popping noise after about 15min when viewing the Sling ProHD DVB-T UK Channels 2. ELMO-1007: Extremely low average video streaming bitrate (<200Kbps) in either ATSC SD or ATSC 1080i resolutions. |
| Feature Added | None |
| Feature Updated | 1. Now box remembers last WAN client only. So in WAN, applying last remembered bitrate logic will work only when the same client connects again. If it is a different client(different public ip or client max resolution is different) then box will start with QVGA 100kbps. |
| Feature Removed |  |
| Specific instructions to QA (if any) | 1. DVBT: Ask Phil to test ELMO-963 with live DVBT signal. 2. DVBT: Use Adrian captured latest streams for your testing. 3. Test ProHD-US functionality with this firmware. |
| Classification | Lebowski 3.0 |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.5.12 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.05.090  06/04/2010 |
| Release Candidate | **Beta** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_06\_04V1\_05\_090](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_06_04V1_05_090)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_06_04V1_05_090/> |
| Base version | 1.05.080 – Last ProHD Release from Eu branch. |
| Known Issues | Transcode path:   1. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-920: Pro-HD EU v1.5.40: FPS fluctuates between (2-10) while streaming from DVBT video input on I-phone(Consistent) 2. ELMO-921: Pro-HD EU v1.5.40: Jerky video is observed on all video inputs while streaming from fast motion content on I-phone and Blackberry(Consistent) 3. ELMO-954: Pro-HD EU v1.5.70: Box is streaming on VGA resolution on WBSP when set for WMV/WMA codec (For H264 source box should stream at QVGA for WMV/WMA codec as per release notes) 4. ELMO-956: Pro-HD EU v1.5.70: While streaming from AV channel on Blackberry, after 5-10 minutes of streaming client screen shows "audio only channel" 5. ELMO-978 - ProHD Lebowski 1.4.70: Resolution is switching to the maximum resolution supported for a particular source without initialising the upgrade counter, if the streaming starts with QVGA or VGA on LAN and WAN - Consistent. 6. ELMO-981: Decoloured mirror image is seen on Component input when user connects to Pro HD SB in HVGA, QVGA and 256X192 resolutions on MAC WBSP. Issue is not seen when video quality is set to "Auto". - Refer screenshot. 7. ELMO-982: Blank screen with weak or no video signal message is seen on WBSP(Win/Mac) when user selects HVGA (Better) resolution on DVBT H264 channel with source resolution 544x576. 8. ELMO-984: ProHd\_EUv1.5.80: Transition from VGA->QVGA for DVBT SD channel doesnt take place when box is disconnected and reconnected after downgrading resolution from VGA->QVGA for the first time. 9. DVBT: Missing channel issue observed at Echostar Steeton 10. [ELMO-994](https://jira.slingmedia.com/browse/ELMO-994): ProHdUS\_v1.4.80:Video Streams and then freezed for 6-8sec after display modes,channels or video input is changed for Symbian S60. |
| Feature Added | None |
| Feature Updated | None |
| Feature Removed |  |
| Specific instructions to QA (if any) | 1. DVBT: Ask Phil to test missing channel issue with Steeton live signal and he has to compare it with set-top box. 2. DVBT: Use Adrian captured latest streams for your testing. 3. Test ProHD-US functionality with this firmware. 4. It could be a MP firmware so please test master image also as part of FAT. |
| Classification | Lebowski 3.0 |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.5.11 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 2.00.070  05/28/2010 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_05\_28V2\_00\_070\_Austin](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_05_28V2_00_070_Austin)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_05_28V2_00_070_Austin/> |
| Base version | Branch version 2.0.60 (Trunk version 1.4.50) |
| Known Issues | 1. WMV simple profile – streaming will work only upto QVGA for Silverlight. |
| Fixed Issues | 1. ELMO-980 Austin PrpHD 2.0.60: Slingbox is not remembering the last known bitrate, if the streaming is disconnected from Flash RTMPE Player and started from PC Native Player or PC WBSP ( and vice versa ) under the same WAN IP – Consistent |
| Feature Added | 1. New Sling Webserver Integration replacing Nucleus Webserver. 2. Encryption support for Silverlight streaming. |
| Feature Updated | 1. Conflict takeover will not be allowed from guest account if streaming is from admin account – To be checked with RTMP/RTMPE client 2. Xml error codes added for error scenarios like invalid URL or http method in the request. 3. Dynamic Encoder type change for Silverlight streaming. 4. Necessary intelligence to support only video modes applicable for resolutions. |
| Feature Removed |  |
| Specific instructions to QA (if any) | 1. Test with RTMPE/RTMP enabled client on PC ,MAC (LAN,WAN,Wifi) ,Mobile and DTV. 2. Test SIlverlight with/without encryption support from PC ,MAC.. 3. All Austin messages/features should be tested thoroughly since there has been code refactoring on the messaging front. 4. Test Basic legacy streaming for SUDP , TCP , RELAY & SNATT. 5. Test all RV config features from SA for legacy streaming. 6. Cover all remaining features tests from Austin WinClient which are not provided by Austin flash/silverlight clients. Eg: Dynamic encode params change , video modes change , audio only mode , encoder type change etc. 7. Test basic SPARCS related control for both Austin & Legacy streaming. 8. Exact clients to be used will be informed during meeting with QA. 9. Test ELMO-979(with rtmpe), ELMO-883 and ELMO-884(with SIlverlight 4.0) and ELMO-894(with rtmp) and update the status. 10. Test Video Freeze on Austin Client on removing WAN connection (which was done for Solo) on PRO-HD as well, try from multiple routers. 11. If time permits do the lebowski comparison for WAN ADSL Wifi & BTC Wifi for Flash & Legacy streaming. (With New code refactoring done would want to measure performance fluctuations). 12. If missed out , all features that were tested on Austin Solo can be included for this release as well. |
| Classification | Austin |
| dDependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.29 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.04.080  05/19/2010 |
| Release Candidate | **GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_05\_19V1\_04\_080](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_05_19V1_04_080)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_05_19V1_04_080/> |
| Base version | 1.4.70 |
| Known Issues | . Transcode path:   1. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input. |
| Fixed Issues | 1. ELMO-978 - ProHD Lebowski 1.4.70: Resolution is switching to the maximum resolution supported for a particular source without initialising the upgrade counter, if the streaming starts with QVGA or VGA on LAN and WAN – Consistent. |
| Feature Added | None |
| Feature Updated |  |
| Feature Removed | NONE |
| Specific instructions to QA (if any) |  |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version: 0.2.29 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.05.080  05/17/2010 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_05\_17V1\_05\_080](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_05_17V1_05_080)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_05_17V1_05_080/> |
| Base version | 1.05.070 – Last ProHD Release from Eu branch. |
| Known Issues | . Transcode path:   1. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 2. With .88 plugin, there is a problem with lebowski 3.0. The problem is,   Assume previous session remembered resolution is QVGA and next time when you connect, resolution will start with QVGA but Vmin applied is 1000kbps. But actually it should have applied 40kbps(QVGA Vmin). This will result unnecessary resolution switches. This issue is seen only with .88 plugin. **With .82 there is no issue**. The different between .82 & .88 plugin is, there is an extra encoder param set message comes from .88 plugin after the stream start which resulted the above issue. We would fix this issue in next release. |
| Fixed Issues | 1. Fix for SANDALWOOD-584[Browser closed unexpectedly performing Coax (ATSC) scan during reconfiguration of Slingbox.]. 2. Fix for ELMO-968[Mac SA 3 : Box Reboot while performing co-ax scan after configuration of one video input using reconfigure another video input link on Mac SA 3 - Inconsistent]. 3. Fix for ELMO-882[Box rebooted while streaming ( within 5 to 10 mins ) on PROHD after enabling or disabling manual RV on SA 2.0, SA 3.0 and MAC Native Player - Consistent]. 4. Fix for ELMO-975[Mac SA 3.0: "The connection attempt failed" message is observed (without performing Auto / Manual RV) while reconfiguring the slingbox]. 5. Fix for ELMO-930[Statistics window is not getting updated with latest resolution when user switches from Lebowski 3.0 to Lebowski 2.7]. 6. Fix for SBFW-348[Pro-v 1.4.20: Box treats two different ADSL connection (with different WAN IPs) as same WAN on either taking the conflict or if we start stop the streaming.] This issue is applicable to proHD also. 7. ELMO-914: PR HD EU v1.5.40 : Video is getting overlapped at the centre of screen when "stretch" (pillar)is selected as display mode on all mobile clients. 8. ELMO-953: Pro-HD EU v1.5.70: Box reboot is observed while streaming from DVBT video input on WBSP (watch.slingbox.com) (Observed once on H264/AAC streaming codec and once on WMV/WMA streaming codec) 9. ELMO-954: Pro-HD EU v1.5.70: Box is streaming on VGA resolution on WBSP when set for WMV/WMA codec (For H264 source box should stream at QVGA for WMV/WMA codec as per release notes) 10. ELMO-955: Pro-HD EU v1.5.70: Video macro block are observed while streaming from H264/AAC codec HD stream 11. ELMO-957: Pro-HD EU v1.5.70: Box streams on 1440x544 resolution with blank AV when user selects "enable HD" on WBSP . 12. ELMO-959: Pro HD EU : Windows / MAC WBSP streams at HVGA resolution on H264 Ch with 720 x 576 resolution. – Consistent 13. ELMO-966 : Pro-HD EU v1.5.70: Box is not showing any video on Mobile client (BB, I-phone, Win-Mo) when client is set to Highest Resolution (320x240). 14. ELMO-967: Pro-HD EU v1.5.70: DVBT video input streams at VGA and HVGA for WMV/WMA streaming codec while streaming on catcher 15. AC3 stream id included to support AC3 input 16. Frequency lock polling time increased to fix no channel was locking with live France signal issue. 17. NIT table timeout increased to improve the missing channel issue reported by Phil. |
| Feature Added | None |
| Feature Updated | 1. Fixed the video freeze issue observed when does WMV QVGA streaming for H.264 HD source. |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | * 1. Test DVBT using latest Europe streams which were captured by Adrian.   2. ELMO-963: Sound starts to make a popping noise after about 15min when viewing the Sling ProHD DVB-T UK Channels : We have added logs to debug this issue. Please reproduce the issue on live signal and capture the logs. |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version: 0.5.10 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.04.070  05/14/2010 |
| Release Candidate | **GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_05\_14V1\_04\_070](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_05_14V1_04_070)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_05_14V1_04_070/> |
| Base version | 1.04.060 |
| Known Issues | 1. Transcode path: Does not support streaming at 1920x544 and 1680x544 for 1080i TS input. 2. With .88 plugin, there is a problem with lebowski 3.0. The problem is,   Assume previous session remembered resolution is QVGA and next time when you connect, resolution will start with QVGA but Vmin applied is 1000kbps. But actually it should have applied 40kbps(QVGA Vmin). This will result unnecessary resolution switches.  This issue is seen only with .88 plugin. **With .82 there is no issue**. The different between .82 & .88 plugin is, there is an extra encoder param set message comes from .88 plugin after the stream start which resulted the above issue. Since we have found this issue at the end of our release testing, we couldn’t fix the firmware. |
| Fixed Issues | 1. Fix for SANDALWOOD-584[Browser closed unexpectedly performing Coax (ATSC) scan during reconfiguration of Slingbox.]. 2. Fix for ELMO-968[Mac SA 3 : Box Reboot while performing co-ax scan after configuration of one video input using reconfigure another video input link on Mac SA 3 - Inconsistent]. 3. Fix for ELMO-882[Box rebooted while streaming ( within 5 to 10 mins ) on PROHD after enabling or disabling manual RV on SA 2.0, SA 3.0 and MAC Native Player - Consistent]. 4. Fix for ELMO-975[Mac SA 3.0: "The connection attempt failed" message is observed (without performing Auto / Manual RV) while reconfiguring the slingbox]. 5. Fix for ELMO-930[Statistics window is not getting updated with latest resolution when user switches from Lebowski 3.0 to Lebowski 2.7]. 6. Fix for SBFW-348[Pro-v 1.4.20: Box treats two different ADSL connection (with different WAN IPs) as same WAN on either taking the conflict or if we start stop the streaming.] This issue is applicable to proHD also. |
| Feature Added |  |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | Test fixed issues first and proceed with actual process. |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version: 0.2.29 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 2.00.060  05/10/2010 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_05\_10V2\_00\_60\_Austin](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_05_10V2_00_60_Austin)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_05_10V2_00_60_Austin/> |
| Base version | Branch version 2.0.50 (Trunk version 1.4.50) |
| Known Issues | 1. This is not a firmware bug but a player issue. QVGA looks blocky for flash client. 2. This is not a firmware bug but a player issue. No video signal message is not displayed by Silverlight client. 3. This is not a firmware bug but SIlverlight issue. AV freezes randomly. |
| Fixed Issues | 1. ELMO-919 - [Garbled video at the bottom of the screen is observed for 4-7 seconds on PC Player and WBSP, on the changing the resolution while streaming on any input,multiple start-stop or on changing the video input.](https://jira.slingmedia.com/browse/ELMO-919) 2. Pro HD v2.0.50-Garbled video is getting displayed on Flash Player (V10,0,42,34) after 4-5hrs of streaming on all video inputs. |
| Feature Added | 1. RTMPE support added for flash streaming |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | 1. Test with RTMPE enabled client on PC and DTV. 2. Test RTMP streaming for mobile. 3. Test all Austin related features. 4. Test basic legacy client features. |
| Classification | Austin |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.29 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| --- | --- |
| Version  Date | 1.05.070  04/30/2010 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_04\_30V1\_05\_070](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_04_30V1_05_070)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_04_30V1_05_070/> |
| Base version | 1.05.060 – Last ProHD Release from branch. |
| Known Issues | . Transcode path:   1. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 2. Video freezes occasionally when do WMV QVGA streaming for H.264 HD source. |
| Fixed Issues | 1. ELMO-932: ProHD: Setup Assistant 2.0 and 3.0 are throwing an error while scanning Antenna Analog and the scanning stops intermediately on C2 IF demod box. 2. DVBT: In the field, Adrian has faced channel name displayed as blank for weak channels. To reduce the occurrences, Timeout for channel name capturing has changed from 3sec to 5 sec. |
| Feature Added | 1. DVBT: Supported H.264 channel streaming.  |  |  |  | | --- | --- | --- | | H.264 Source | H.264 streaming | WMV streaming | | SD | Max res VGA | Max res QVGA | | HD | Max res VGA | Max res QVGA (\*) |   (\*)Video freezes occasionally when do WMV QVGA streaming for H.264 HD source.  We have only couple of H.264 streams only. Our DVBT generator is playing these streams only when streams play rate is reduced. It leads to Video freezing and audio hiccups. |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | 1. Test DVBT using latest Europe streams which were captured by Adrian. 2. DDR Memory organization has changed. It has an impact on all. Please cover all the possible streaming combination test. |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version: 0.5.7 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.04.060  04/08/2010 |
| Release Candidate | **CM for ProHD-US (C2 IF demod) and GM launch for Lebo3 ProHD-US** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_04\_08V1\_04\_060](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_04_08V1_04_060)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_04_08V1_04_060/> |
| Base version | 1.04.050 |
| Known Issues | . Transcode path:  Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | None. |
| Feature Added | 1. ELMO-926: Auto AV detection failed for S-Video, composite, RF analog 2. For digital scan (Antenna and Cable), ProHD always locks to correct frequency +/- 0.0625 MHz. 3. ELMO-932: ProHD: Setup Assistant 2.0 and 3.0 are throwing an error while scanning Antenna Analog and the scanning stops intermediately on C2 IF demod box. |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | Test MTW and FAT |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version: 0.2.29 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.05.060  03/29/2010 |
| Release Candidate | **LPP for ProHD-Eu** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_03\_29V1\_05\_060](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_03_29V1_05_060)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_03_29V1_05_060/> |
| Base version | 1.05.050 – Last ProHD Release from branch. |
| Known Issues | . Transcode path:  Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | None. |
| Feature Added | 1. ELMO-926: Auto AV detection failed for S-Video, composite, RF analog 2. For digital scan (Antenna and Cable), ProHD always locks to correct frequency +/- 0.0625 MHz. |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | Test MTW for both ProHD-US and Eu boards. Test reduced FAT for ProHD-Eu. |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version: 0.5.6 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.05.050  03/24/2010 |
| Release Candidate | **LPP** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_03\_24V1\_05\_050](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_03_24V1_05_050)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_03_24V1_05_050/> |
| Base version | 1.05.040 – Last ProHD Release from branch. |
| Known Issues | . Transcode path:  Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | None. |
| Feature Added | 1. DVBT – MP2L2 audio 32kHz mono channel streaming supported 2. Channel change supported from MTW application.    1. MTW configuration file has channel tag for analog and digital inputs. The channel number specified on that channel tag is passed to box.    2. For analog RF input, the channel number given in MTW cfg file is considered as a corresponding analog antenna channel number with respect to the set country and tuned to it.    3. For digital RF (ATSC and DVBT) input, the channel number given in MTW cfg file is considered as a channel order in PAT table and tuned to it correspondingly.    4. If digital channel order given in MTW configuration file is zero or it exceeds number of channel available in the PAT then first available channel in PAT will be streamed. 3. USB circuitry will be removed on ProHD-Eu board from LPP production Hence USB controller is powered down. 4. In order to reduce the power consumption as per Eu compliance, USB circuitry will be removed in next LPP production. 5. If the board is detected as ProHD-Eu then USB controller module clock is switched off and powered down. 6. USB page from MTW application will be removed by BTC-QA and they will send the same to E\* production team. 7. Analog RF scanning and streaming enabled for ProHD-Eu also. |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | Test MTW for both ProHD-US and Eu boards. Test reduced FAT for ProHD-Eu. |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version: 0.5.6 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.05.040  03/03/2010 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_03\_03V1\_05\_040](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_03_03V1_05_040)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_03_03V1_05_040/> |
| Base version | 1.05.030 – Last ProHD Release from branch. |
| Known Issues | . Transcode path:  Does not support streaming at 1920x544 and 1680x544 for 1080i TS input  DVBT – MP2L2 audio 32kHz mono channel streams breaking audio |
| Fixed Issues | 1. ELMO-897- Pro HD v1.5.30 : Box is not getting connected on iphone for coax and throws decoder error or no video signal detected, if connected. 2. ELMO-895- Bit rate is not increasing above 2 Mbps on DVBT while streaming the channel with resolution 544 X 576 on WBSP and PC Player 3. ELMO-896- Pro-HD EU v1.5.30: Audio & Video stuttering is observed after10 to 15mints of DVBT streaming on WBSP. 4. ELMO-899- Pro-HD EUv1.05.030:Box is getting rebooted while taking conflict from PC Native player to MAC Native player while scanning DVBT on PC Native player. 5. ELMO-901-Pro-HD EU v 1.05.030: Box is getting rebooted while connecting Coax(DVBT) on Symbian Mobile. 6. ELMO-900-Pro-HD EU v 1.05.030:Box is getting rebooted while streaming DVBT on Blackberry. |
| Feature Added | 1. Reduced SPARCS UPDATE. SPARCS response will have information about time interval to update to SPARCS from box.   Bits 20-22 give info about SPARCS update interval.  ***Slingbox-SPARCS periodic register duration***  Length: 3 bits  Location: Bits 20-22   |  |  | | --- | --- | | Value | Meaning | | 0 | Current scheme (UPnP/NAT-PMP: 30 mins, Manual: 5 mins, LAN Only: 24 hrs ) | | 1 | Slingbox default (Will be 1 hr) | | 2 | 1 hr | | 3 | 4 hrs | | 4 | 24 hrs | | 5 | Never (No periodic communication) | | 6-7 | NA |   This scheme is applicable as long as box has connection with MSG.  If box gets disconnected to MSG, box will switch back to old scheme of update ( wan disabled box = once in 24 hr, upnp router: every 30min, manually configure box: every 5min).  When box gets connected to MSG again, it will switch to reduced frequency of SPARCS update. |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | Test for both ProHD-US and Eu functionality. |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version: 0.5.5 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.04.050  02/27/2010 |
| Release Candidate | **Beta** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_02\_27V1\_04\_050](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_02_27V1_04_050)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_02_27V1_04_050/> |
| Base version | 1.4.040 – Last ProHd Release with Reduced Update SPARCS feature |
| Known Issues | . ATSC transcode path:  Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-903: Even after setting the value 30 in byte three in SPARCS so that box sends the update after every 4 hours, box is sending the updates after every one hour.(Consistent) 2. ELMO-904: Box is pinging every one hour to SPARCS even though SPARCS third byte is set to '50', in this case box should not do periodic communication to SPARCS. (Consistent) |
| Feature Added | NONE |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | 1. Reduced SPARCS Update Test 2. Do testing on Reduced SPARCS update in all time intervals as set by SPARCS. 3. Disconnect box to MSG and check box updates to SPARCS as per old scheme 4. When box gets connected to MSG, it has to update to SPARCS as per time interval set by SPARCS 5. If WAN is disabled on box, it has to update every 24hr once irrespective of SPARCS setting time interval on box. 6. FWU over Relay 7. Please test this feature in FC to validate the fix. |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version: 0.2.29 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

# Release History

Distribution List

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| --- | --- |
| To | \_BTC Managers; \_QA; Amey Shirali; Madan Mohan Nayak; Vikram Dham; Sachin D. Mule; Raja Bose; Steve Dalal; Stephan Richard; Ilya Asnis; Rick Carini; Raghu Tarra; Satish Iyer; Adrian Dowle; Venkatesan Thiyagarajan |
| Cc | \_BTC Embedded; \_BTC DSP |
| Contact person | Vimalraj Ganesan |

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| Version  Date | 1.04.040  02/22/2010 |
| Release Candidate | **Beta, GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_02\_22V1\_04\_040](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_02_22V1_04_040)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_02_22V1_04_040/> |
| Base version | 1.4.030 – Last ProHd Lebowski Release |
| Known Issues | . ATSC transcode path:  Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-863: Pro HD 1.4.30 / 2.0.20 : Last know bitrate is not remembered by the SB on LAN. On reconnection, bit rate starts with ~8 to 10 % more than the last remembered bit rate from the previous session. – Consistent 2. ELMO-868:Slingox is getting connected on MAC Player while the QAM scanning is in progress on Windows PC Player- Consistent. 3. Continuous stream start-stop wasn't working from TestSlingClient 4. FWU over Relay fails and box gets disconnected after sometime 5. As recommended by NXP, for TDA8295 C2 revision IF demodulator, current consumption of ADC value is set to 1, instead of its default value 0.5. 6. IF demodulator C1 and C2 information added in the HW minor version using chip identity value.   Minor version [bits6:5] => 00 - TDA8295\_C1; 01 - TDA8295\_C2;  11 - Unknown/Other; 10 - Reserved |
| Feature Added | 1. Reduced SPARCS UPDATE. SPARCS response will have information about time interval to update to SPARCS from box.   Bits 20-22 give info about SPARCS update interval.  ***Slingbox-SPARCS periodic register duration***  Length: 3 bits  Location: Bits 20-22   |  |  | | --- | --- | | Value | Meaning | | 0 | Current scheme (UPnP/NAT-PMP: 30 mins, Manual: 5 mins, LAN Only: 24 hrs ) | | 1 | Slingbox default (Will be 1 hr) | | 2 | 1 hr | | 3 | 4 hrs | | 4 | 24 hrs | | 5 | Never (No periodic communication) | | 6-7 | NA |   This scheme is applicable as long as box has connection with MSG.  If box gets disconnected to MSG, box will switch back to old scheme of update ( wan disabled box = once in 24 hr, upnp router: every 30min, manually configure box: every 5min).  When box gets connected to MSG again, it will switch to reduced frequency of SPARCS update. |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | 1. Reduced SPARCS Update Test 2. Do testing on Reduced SPARCS update in all time intervals as set by SPARCS. 3. Disconnect box to MSG and check box updates to SPARCS as per old scheme 4. When box gets connected to MSG, it has to update to SPARCS as per time interval set by SPARCS 5. If WAN is disabled on box, it has to update every 24hr once irrespective of SPARCS setting time interval on box. |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version: 0.2.29 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

# Release History

Distribution List

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| --- | --- |
| To | \_BTC Managers; \_QA; Amey Shirali; Madan Mohan Nayak; Vikram Dham; Sachin D. Mule; Raja Bose; Steve Dalal; Stephan Richard; Ilya Asnis; Rick Carini; Raghu Tarra; Satish Iyer; Adrian Dowle; Venkatesan Thiyagarajan |
| Cc | \_BTC Embedded; \_BTC DSP |
| Contact person | Vimalraj Ganesan |

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| Version  Date | 1.05.030  02/17/2010 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_02\_17V1\_05\_030](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_02_17V1_05_030)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_02_17V1_05_030/> |
| Base version | 1.5.020 - build from ProHD-Eu branch |
| Known Issues | 1. Transcode path:   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input  ATSC - Audio on mono mode is noisy  DVBT – Audio on left, right and mono modes are noisy.  DVBT – MP2L2 audio only channel streams breaking audio |
| Fixed Issues | 1. ELMO-666:Valid Banner continues to be displayed on PC Player (494) and SPM Clients while streaming video input composite/svideo/component for variable encryption (Player - 4 /SPM -1) until control bit is set back to 0 (Fixed encryption). 2. ELMO-868:Slingox is getting connected on MAC Player while the QAM scanning is in progress on Windows PC Player- Consistent. 3. Continuous stream start-stop wasn't working from TestSlingClient 4. For the unconfigured ProHD Europe box, on boot up firmware updated the default country as UK 5. As recommended by NXP, for TDA8295 C2 revision IF demodulator, current consumption of ADC value is set to 1, instead of its default value 0.5. 6. IF demodulator C1 and C2 information added in the HW minor version using chip identity value.   Minor version [bits6:5] => 00 - TDA8295\_C1; 01 - TDA8295\_C2;  11 - Unknown/Other; 10 - Reserved   1. DVBT audio only channel was not streaming 2. ELMO-881: Pro-HD EU v1.5.20 : Box is getting rebooted when channel with 544x576 resolution is streamed on WMV/WMA codec supported clients (BB, I-phone,Symbian,Mac Native player, Catcher, PC Player ).consistent. |
| Feature Added | 1. Lebowski 2.7 and 3.0 are supported (updated from ProHD Trunk) 2. MPEG2Layer2 audio streaming supported. |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) |  |
| Classification | ATSC and DVBT |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.5.04 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.05.020  01/27/2010 |
| Release Candidate | **CM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_01\_27V1\_05\_020](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_01_27V1_05_020)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_01_27V1_05_020/> |
| Base version | 1.5.010 - build from ProHD-Eu branch |
| Known Issues | 1. Transcode path:   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input  ATSC - Audio on mono mode is noisy  DVBT – Audio on left, right and mono modes are noisy.   1. Lebowski 2.7 and 3.0 are not supported. |
| Fixed Issues | 1. To use ProHD-Eu configuration file by MTW application hardware major version number has been changed from 1 to 2. |
| Feature Added | 1. DVBT: Streaming support on MTW application. |
| Feature Updated | NONE |
| Feature Removed | 1. Disabled Analog RF auto detection for ProHD-Eu. |
| Specific instructions to QA (if any) |  |
| Classification | ATSC and DVBT |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.5.03 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.05.010  01/21/2010 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010\_01\_21V1\_05\_010](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2010_01_21V1_05_010)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2010_01_21V1_05_010/> |
| Base version | 1.3.190 - build from ProHD-Eu branch |
| Known Issues | 1. Transcode path:   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input  ATSC - Audio on mono mode is noisy  DVBT – Audio on left, right and mono modes are noisy.   1. Lebowski 2.7 and 3.0 are not supported. |
| Fixed Issues | NONE |
| Feature Added | 1. DVBT: Channel scanning supported for DVBT countries and streaming support for MPEG2 Video and MPEG1 layer 2 Audio DVBT sources. |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | 1. This release has to be tested on both ProHD-Eu and ProHD-US boards for its relevant features. 2. All PAL resolution content has to be tested on ProHD-Eu board 3. Box configuration and streaming has to be tested on all necessary clients. |
| Classification | ATSC and DVBT |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.5.03 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| --- | --- |
| Version  Date | 1.04.030  12/18/2009 |
| Release Candidate | **Beta** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_12\_18V1\_04\_030](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_12_18V1_04_030)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_12_18V1_04_030> |
| Base version | From trunk (1.3.190 + lebowski 3.0 merged ) |
| Known Issues | 1. Lebowski 3.0 :  * With test page (FF & IEv1.2.0.73), during dynamic resolution switch randomly player stops decoding frame.  1. ATSC transcode path:   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-843 - Box reboots while scanning for Hybrid Cable on WAN. Issue is seen only on Rev B+C1 SBs. Verified on SB's in FC and BTC – Consistent 2. ELMO-841 - Pro-HD v 1.04.20: Split & Garbled video is displayed for 4 to 6 sec and recovers back on WBSP v1.4.0.73, If Video cable is unplugged & stop-start streaming and then the video cable is plugged in back.(Consistent) 3. ELMO-840 - Blank Video is observed on switching input from no video input connected to valid input connected across all inputs. Audio is heard as expected. Issue is seen on both Wbsp Test page and PC Player. (Consistent) 4. ELMO-839 - Garbled video is observed for PAL content on plugging out and then plugging in any video input on which Sling player is streaming,when bandwidth is restricted to 400kbps. 5. ELMO-826 - Garbled video is observed on multiple switching of video inputs when the bandwidth is restricted to 30000bytes/sec. 6. ELMO-819 - Garbled video is coming on switching video inputs for PAL after restricting bandwidth to 20000bytes/sec.(Consistent : observed 2 out of 2 times) 7. ELMO-805 - Video cropped at the bottom of the screen for ATSC with 224\*176 resolution on SPM S-60 & BB (Pearl & Kickstart) 8. ELMO-836 - Pro-HD v 1.04.20: Box is getting rebooted while configuring and scanning ATSC/QAM first time on MAC sling player for both configured and unconfigured box(Consistent observed on Rev c+c2 Board) 9. ELMO-835 - Pro HD v1.4.20:Box is streaming video in audio only mode when "Audio only" mode is selected and "video input" is changed in the SPM BB v1.0.0.11. 10. ELMO-834 - Green Horizontal Patch is getting displayed at the bottom of the video when box is streamed on SPM BB v1.0.0.11 in Highest resolution(320x240) and display mode is set as Letter box or HD content is streamed with Auto Display mode or Letter box mode. |
| Feature Added |  |
| Feature Updated | . |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | 1. Use Web Based Sling player test page for testing lebowski 3.0 (FF & IEv1.2.0.75). In player, selecting **automatic resolution** option in “stream settings” will request box to do lebowski 3.0. For other options, player request box to do lebowski 2.7. 2. Other players (native, mobile) not yet integrated lebowski 3.0 support. With those clients box will do lebowski 2.7. |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.29 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| --- | --- |
| Version  Date | 1.04.020  11/30/2009 |
| Release Candidate | **Beta** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_11\_30V1\_04\_020](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_11_30V1_04_020)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_11_30V1_04_020> |
| Base version | 1.04.010 |
| Known Issues | 1. Lebowski 3.0 :  * With test page (FF & IEv1.2.0.73), during dynamic resolution switch randomly player stops decoding frame. * With test page (FF & IEv1.2.0.73), during AV input switch randomly player crashes.  1. ATSC transcode path:   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | ELMO-804 - Audio is not heard on QAM Digital channels. However on another SB configured for QAM, audio is heard as expected for Digital channels. (Both the SB's are in FC). Rescanning did not resolve the issue - Inconsistent - Observed twice in 3 trials.ELMO-807 -  Box reboots if some invalid channel is set as home channel & tried to connect to a Pro Hd box from SPM iPhone v2.0.1.  1. ELMO-821 - Garbled Video is seen on PC Player( 2.0.4.521) while streaming component input ( 480i/p). Streaming Resolution shows 1920X540. Issue is not seen on WMV / WMA. Issue is also not seen on Test page 1.2.0.63 - Refer screenshot - 100 % reproducible. 2. ELMO-823 - Downscaling to QVGA resolution from VQA and HD resolution fails on ATSC and QAM test. – Consistent 3. ELMO-825 - Split video is observed on switching the video input and then inserting cable for that input. 4. ELMO-829 - Invalid value is displayed in the logs for last remembered bit rate in the box logs after box disconnect. Value displayed is 5 digit no. Maximum value for the bit rate is 8000 Kbps (4 digits) - Inconsistent, Refer screen shot attached.ELMO-832 - Bitrate on component input(720p) reaches 8000Kbps in 1 to 2 mins and after that it fluctuates in between 5500-6500 Kbps(Consistent) 5. ELMO-830 - Audio and video goes out of sync on catcher while streaming on component input(720P) ,it recovers back after 10-15 mins of streaming and after 1-2 mins again it is out of sync (consistent) 6. ELMO-831 - For Pro-HD 1.4.10 version, PC player displays the resolution for component input as 1280x720 when the source resolution is 720p,however in version 1.3.190 it displays the resolution as 1280x544.(Consistent) 7. ELMO-832 - Bitrate on component input(720p) reaches 8000Kbps in 1 to 2 mins and after that it fluctuates in between 5500-6500 Kbps(Consistent) |
| Feature Added |  |
| Feature Updated | 1. Lebowski 2.7:  * Supported audio only mode in Lebowski ON case. i.e Optimizing audio bitrate in audio only mode   . |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | 1. Use Web Based Sling player test page for testing lebowski 3.0 (FF & IEv1.2.0.73). In player, selecting **automatic resolution** option in “stream settings” will request box to do lebowski 3.0. For other options, player request box to do lebowski 2.7. 2. Other players (native, mobile) not yet integrated lebowski 3.0 support. With those clients box will do lebowski 2.7. |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.28 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.04.010  11/10/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_11\_10V1\_04\_010](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_11_10V1_04_010)  [ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009\_11\_10V1\_04\_010](ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_10_29V1_03_190/) |
| Base version | 1.03.190 |
| Known Issues | 1. Lebowski 3.0 : During dynamic resolution switch randomly player stops decoding frame. This issue will happen if the video driver is old in your PC. Working with player team for this issue. 2. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. |
| Feature Added | 1. Lebowski 2.7:  * Improvements in optimizing streaming bitrate compared to 1.3.190. * Supported audio only mode in Lebowski ON case. . i.e Optimizing audio bitrate in audio only mode  1. Lebowski 3.0:   Optimizing resolution based on available n/w bandwidth. |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | 1. Use Web Based Sling player test page for testing lebowski 3.0 (FF & IEv1.2.0.63) . Other players not yet integrated lebowski 3.0 support. 2. In player, selecting **automatic resolution** option in “stream settings” will request box to do lebowski 3.0. |
| Classification | Lebowski 3.0 |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.27 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.03.190  10/29/2009 |
| Release Candidate | **CM (For DaVinci Rev C and C2 tuner updates)** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_10\_29V1\_03\_190](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_10_29V1_03_190)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_10_29V1_03_190/> |
| Base version | 1.03.180 |
| Known Issues | 1. ATSC transcode path  * Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. |
| Feature Added | 1. DAVINCI-HD Rev B and C identification added in the hardware version.  |  |  | | --- | --- | | Minor version [b3:b2] | Description | | 00b | DaVinci-HD DM6467 PG 1.x (Revision B) | | 01b | DaVinci-HD DM6467 PG 3.x (Revision C) | | 10b | Reserved | | 11b | Unknown or other revisions |   With this change, for Rev B + C1 tuner board the hw version will be 1.0.0, For Rev C + C1 tuner board the hw version will be 1.4.0 and for Rev C + C2 tuner board it will be 1.5.0. |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | NONE |
| Classification | NONE |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.26 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| --- | --- |
| Version  Date | 1.03.180  10/27/2009 |
| Release Candidate | **CM (For DaVinci Rev C and C2 tuner updates)** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_10\_27V1\_03\_180](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_10_27V1_03_180)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_10_27V1_03_180/> |
| Base version | 1.03.170 |
| Known Issues | 1. ATSC transcode path  * Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-802 - Split Screen observed while switching between Landscape and Normal mode using Accelerometer. 2. [SLINGNET-147](https://jira.slingmedia.com/browse/SLINGNET-147) - Pro-HDv 1.3.170 : Pro-HD is sending the sling box Analytics logs to QA instead of PROD. 3. [ELMO-806](https://jira.slingmedia.com/browse/ELMO-806) - LAN Streaming resolutions changes from VGA to QVGA on MAC player for channel change on COAX, to / from any video input change and input source resolution change (HD-HD, SD-HD, HD-SD) on component input with CONTROL MODE ON. – Consistent 4. [ELMO-794](https://jira.slingmedia.com/browse/ELMO-794) - Box reboots upon changing display modes multiple times (4-6 times) on Relay. Seen on both SPM iphone v 1.2 and BB v1.0.0.11 - Consistent, Observed 6 out of 8 times 5. [ELMO-791](https://jira.slingmedia.com/browse/ELMO-791) - Display mode change back to back from BlackBerry results in "Split screen" inconsistently (Seen on Revision C and revision B boards). 6. [ELMO-755](https://jira.slingmedia.com/browse/ELMO-755) - Beta :: Detail scan option is not avaialable for PRO-HD digital cable input 7. [ELMO-782](https://jira.slingmedia.com/browse/ELMO-782) - Garbledvideo with Split in between is observed on SPMBB over relay,when videoinputs are changed for3-4times in listenmode and then switching playermode to watch mode. 8. [ELMO-795](https://jira.slingmedia.com/browse/ELMO-795) - Unknown tuner (tuner detection fail case ) type identification is failing with firmware 1.3.150. Verified breaking the I2C link by removing the resistors and by removing the tuner power supply on Pro HD SB. For both the cases H/W version shows 1.0.0. 9. Stability: Improved the overall streaming stability. 10. Transcode path: Box reboots for manual 8Mbps 1440x544. 11. DaVinci Rev C updates: Rev C has silicon bug fixes for VC1 encoder. Appropriate VC1 encoder lib updated. |
| Feature Added | 1. Detail scan for cable: For cable coax input, Normal and detailed scan mode implemented. The native PC and MAC’s SA does detail scan in default, it will not support normal scan mode. The SA3.0 will support user option to select the scan mode. |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | NONE |
| Classification | NONE |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.26 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.03.170  09/22/2009 |
| Release Candidate | **Beta, GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_09\_22V1\_03\_170](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_09_22V1_03_170)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_09_22V1_03_170/> |
| Base version | 1.03.150 |
| Known Issues | 1. ATSC transcode path  * Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. [SLINGNET-140](https://jira.slingmedia.com/browse/SLINGNET-140): SNATT Connection fails with 2.0.3.508 player on Solo, Pro and Pro-HD (inconsistent observed 8 out of 10 attempts) |
| Feature Added | NONE |
| Feature Updated | NONE |
| Feature Removed | NONE |
| Specific instructions to QA (if any) | NONE |
| Classification | NONE |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.24 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

Distribution List

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| To | \_BTC Managers; Ilya Asnis; Rick Carini; Raghu Tarra; Venkatesan Thiygarajan; Rahul Choubey; Satish Iyer;  Dallas, \_BTC Embedded, \_QA, Shashidhar B., Ilangovan A., Ravneet A., Venugopal K., Arunoday T., Shubhamsha K; Tung; Satish Iyer; Andrew Einaudi; Amey Shirali; Madan Mohan Nayak; Vikram Dham; Sachin D. Mule; Balaji Raghavan; Tung Pham; Michael Fisher; Raja Bose |
| Cc | \_BTC Embedded; Vineet Govil |
| Contact person | Vimalraj Ganesan, N.Naga Mallika |

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| Version  Date | 1.03.150  09/10/2009 |
| Release Candidate | **Beta, GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_09\_10V1\_03\_150](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_09_10V1_03_150)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_09_10V1_03_150/> |
| Base version | 1.03.130 released on 08/24/2009 |
| Known Issues | 1. ATSC transcode path  * Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-785: For 176x120 resolution box was streaming 176x144 2. BB-CDMA – It was streaming audio only, video was blank 3. Relay: Refinement on reconnect logic for streaming socket. 4. Unknown tuner (tuner detection fails) type identification added in HW minor version.   In HW minor version two bits [b1b0] have reserved for tuner identification.   |  |  |  | | --- | --- | --- | | b1 | b0 | Meaning | | 0 | 0 | C1 tuner detected | | 0 | 1 | C2 tuner detected | | 1 | 0 | Reserved | | 1 | 1 | Unknown tuner type (detection failed) |   Now the hardware version for  C1 board is 1.0.0  C2 board is 1.1.0  If detection fails then it shows 1.3.0  QA has to educate customer support and production unit regarding this version change.   1. In case of unknown tuner type, we don’t allow coax input port configuration. SA displays error message. In case of analog and cable the error message is ”Sorry, we ran into an error while streaming for channels; please try again” , In case of external box it is ”your inupt not saved please try again”. 2. Encode path: 1680x544 resolution streaming enabled 3. Transcode path: In manual set encode param, Though in box capability 1920x1080 we have removed, player is displaying that option and request for 1920x1080. In this case, there was no max resolution cap. Now box streams 1440x544. 4. The sling box message wrongly sent twice for SSL connection 5. There was a bug in which SUDP blocked on Slingbox (0x14) errors were continuously seen after a SlingSL handshake failure (0x06 error) for the same Client-ID (until SlingPlayer was restarted). The bug is resolved. |
| Feature Added | 1. Slingbox logging: Slingbox logging added to Analytics server. The details are given in a separate document Slingbox\_logging\_07\_Sep\_2009.docx available in release folder. 2. Controlling Slingbox from SPARCS: some parameters can be configured from SPARCS and sent to Slingbox as part of SPARCS-Slingbox register response. The response bits can be modified on SPARCS webpage (e.g. <http://sparcs.slingmedia.com/admin/upDatedSlingBoxLookup.htm>).   The details of the payload bits are given below:  Bits 0-7: Subscription and encryption bits, remains unchanged.  Bits 8-10: Keep-alive timeout duration (3 bits)   |  |  | | --- | --- | | **Value** | **Meaning** | | 0 | Slingbox default (5 mins) | | 1 | 30 sec | | 2 | 1 min | | 3 | 2 min | | 4 | 3 min | | 5 | 4 min | | 6 | Reserved | | 7 | Reserved |   Bit 11: reserved = 0, 1 - above 3 bits have different meaning.  Bits 12-14: MSG reconnect duration (3 bits)   |  |  | | --- | --- | | **Value** | **Meaning** | | 0 | Slingbox default  (Disabled) | | 1 | 1 min | | 2 | 5 min | | 3 | 1 hour | | 4 | 4 hours | | 5 | 24 hours | | 6 | Reserved | | 7 | Reserved |   Bit 15: reserved = 0, 1 - above 3 bits have different meaning.  Bit 16-17: Minimum Logging duration (2 bits )   |  |  | | --- | --- | | **Value** | **Meaning** | | 0 | Slingbox default  (5 mins) | | 1 | 1 second | | 2 | 1 hour | | 3 | Disabled |   Bits 18-19: Reboot control (2 bits)   |  |  | | --- | --- | | **Value** | **Meaning** | | 0 | Slingbox default  (No reboot) | | 1 | Once immediate | | 2 | Periodic (24 hrs) | | 3 | Reserved = 0 |   Bit 20-21: reserved  Bit 23: reserved = 0, 1 - above 7 bits have different meaning  Other bits: remains unchanged |
| Feature Updated | **SlingNet**   1. TCP keep-alive timeout is changed back to 5 mins from 1 min. 2. Slingbox reconnect to MSG modified    1. Reconnects immediately for TCP keep-alive timeout    2. Reconnects after a random delay of up to 5 mins if MSG closes connection (PAY timeout or MSG restarted)   Subsequently reconnects for both above cases are done after a random delay between 150 seconds and 450 seconds.   1. Congestion control algorithm in SUDP has been enhanced and that should reduce the % loss without dropping the overall throughput. 2. Snatt protocol is modified to retransmit connection response and also have frequency of hello & bind messages reduced to every 500ms. |
| Feature Removed |  |
| Specific instructions to QA (if any) |  |
| Classification |  |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.24 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.03.140  09/02/2009 |
| Release Candidate | **Internal - for DaVinci Rev-C validation** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_09\_02V1\_03\_140\_RevC](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_09_02V1_03_140_RevC)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_09_02V1_03_140_RevC/> |
| Base version | 1.03.130 released on 08/24/2009 |
| Known Issues | 1. ATSC transcode path  * Does not support streaming at 1920x544 and 1680x544 for 1080i TS input * VC1 1280x544 streaming disabled because of the DaVinci Rev C loading issue. |
| Fixed Issues | 1. ELMO-785: For 176x120 resolution box was streaming 176x144 2. BB-CDMA – It was streaming audio only, video was blank 3. Relay: Refinement on reconnect logic for streaming socket. 4. [ELMO-774](https://jira.slingmedia.com/browse/ELMO-774): [Video Artifacts and Video hick ups are seen on all the inputs while streaming from the New Pro HD ECN boards labeled 3P\_US\_092 C2, 3P\_US\_055 and 3P\_US\_095 on MAC Player 1.0.9.276, Catcher 64 and PC Player ( WMV/WMA codec)](https://jira.slingmedia.com/browse/ELMO-774). 5. Unknown tuner (tuner detection fails) type identification added in HW minor version.   In HW minor version two bits [b1b0] have reserved for tuner identification.   |  |  |  | | --- | --- | --- | | B1 | B0 | Meaning | | 0 | 0 | C1 tuner detected | | 0 | 1 | C2 tuner detected | | 1 | 0 | Reserved | | 1 | 1 | Unknown tuner type (detection failed) |   Now the hardware version for  C1 board is 1.0.0  C2 board is 1.1.0  If detection fails then it shows 1.3.0  QA has to educate customer support and production unit regarding this version change.   1. In case of unknown tuner type, we don’t allow coax input port configuration. SA displays error message. In case of analog and cable the error message is ”Sorry, we ran into an error while streaming for channels; please try again” , In case of external box it is ”your inupt not saved please try again”. |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) |  |
| Classification |  |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.25 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.03.130  08/24/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_08\_24V1\_03\_130](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_08_24V1_03_130)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_08_24V1_03_130/> |
| Base version | 1.03.120 released on 08/10/2009 |
| Known Issues | 1. ATSC transcode path  * Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-775: Auto Video Detection is failing in the starting page of MTW v 1.5.1.343 for C2 Pro HD Boards (3P\_040 and 3P\_087) on COAX Input. However in the second and third page of MTW, Analog and ATSC signals gets detected respectively. - Inconsistent 2. ELMO-777: Pro HD C2 (3P\_040 and 3P\_087) boards configured for COAX Analog using TR-40/ RF Modulator always display "Weak or No Signal Detected" message after it is power-cycled and connected back - Consistent 3. The channel didn't lock after power reset if it scanned for External cable box. 4. Relay: Fast channel +/- box stops streaming on iPhone or BB – improved the stability. |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) |  |
| Classification |  |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.24 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.03.120  08/10/2009 |
| Release Candidate | **Beta** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_08\_10V1\_03\_120](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_08_10V1_03_120)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_08_10V1_03_120> |
| Base version | 1.03.100 |
| Known Issues | 1. ATSC transcode path  * Does not support streaming at 1920x544 and 1680x544 for 1080i TS input  1. Fast Channel change from iPhone to ProHd over Relay get disconnected from box. But box is in good state and player is able to reconnect. |
| Fixed Issues | 1. (ELMO-762) ATSC/QAM: Unable to stream certain 1080i live channel 2. (ELMO-764) WAN Firmware upgrade is failing on FC Pro HD SB's from BTC/QA LAN. However from ADSL, firmware upgade is successful on the same FC Pro HD SB's – Consistent, It is improved. Check the frequency of failure with this fix 3. ELMO-769:Pro-HD SNET v1.3.100 :Sling Player lost the connection and does not allow to connect after switching to listen mode and then change the video input on Blackberry over RELAY(Inconsistent observed only once out of 6 trials). It is Improved. Box is in good state. Player can connect to it again. 4. (ELMO-771) No Video signal mesage is displayed while changing the channels and continues to display forever. 5. (ELMO-772) Flashing stripes of different color artifacts are shown when tuned to majority of SD QAM channels |
| Feature Added | SNATT V2   1. This version of firmware is incompatible with MS up to version 1.0.6 and hence it should be tested with MS 1.0.7 currently deployed only on QA. Snatt should not be tested with this firmware on PROD until MS 1.0.7 is deployed. 2. The Snatt protocol is enhanced and hence the success rate should increase routers like Netgear (wgr624v3) and Zyxel that were not supported earlier with Snatt v1 are supported now. 3. Snatt should succeed even if both Slingbox and SlingPlayer are behind same public-IP provided UDP hairpin is enabled in router. |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) |  |
| Classification |  |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.24 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

Distribution List

|  |  |
| --- | --- |
| To | \_BTC Managers; Ilya Asnis; Rick Carini; Raghu Tarra; Venkatesan Thiygarajan; Rahul Choubey; Satish Iyer;  Dallas, \_BTC Embedded, \_QA, Shashidhar B., Ilangovan A., Ravneet A., Venugopal K., Arunoday T., Shubhamsha K; Tung; Satish Iyer; Andrew Einaudi; Amey Shirali; Madan Mohan Nayak; Vikram Dham; Sachin D. Mule; Balaji Raghavan; Tung Pham; Michael Fisher; Raja Bose |
| Cc | \_BTC Embedded; Vineet Govil |
| Contact person | Vimalraj Ganesan, N.Naga Mallika |

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| --- | --- |
| Version  Date | 1.03.100  07/20/2009 |
| Release Candidate | **Internal Release** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_07\_20V1\_03\_100](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_07_20V1_03_100)  [ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009\_07\_20V1\_03\_100](ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_06_12V1_03_080) |
| Base version | 1.03.080 |
| Known Issues | 1. ATSC transcode path  * Does not support streaming at 1920x544 and 1680x544 for 1080i TS input  1. Box goes to some bad state after doing channel change for 20times or more ,from iPhone over Relay connection. Not able to do any streaming after that. |
| Fixed Issues | 1. (SLINGNET-126) RELAY: Able to connect to the same slingbox from two different clients simultaneously with Relay connection type and it takes more than a minute to give conflict message on one of the client(Observed 3 out of 3 times) 2. ELMO-758: Swiching back to “Watch” mode from “Listen” over Relay Connection displays “Audio only Channel” on screen 3. ELMO-738 Audio noise is heard on digital channels(ATSC/QAM) for audio setting Mono Low/High on SPM BB, Iphone and MAC Player. - Consistent in WMA / WMV 4. ELMO-715: Streaming : Box rebooted on WAN (256 X 192) while streaming Component (720p) input - Inconsistent - Observed Once 5. ELMO-744: Streaming : Box is sending 30 FPS when the PAL Source resoltuion is set to either 720p 50 Hz or 576p on Component (Apple TV). However for 1080-50hz and 576i, box sends 25 FPS as expected 6. If client doesn’t ask, CC data is not sent to client 7. VLC sling Plug in: Even though encryption was disabled, ProHd was streaming at bitrates higher than QVGA instead of 500kbps |
| Feature Added | 1. Flash IR DB support added 2. ATSC-CC support added 3. Smoothness and range reduction control enabled   RangeRedn tool and smoothness control are linked for both Enc & Transc paths for sling’s wmv encoder (to obtain identical wmv functionality between PRO and Pro-HD) |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) |  |
| Classification |  |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.23 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

# SB : ProHD+SNet

# Release History

Distribution List

|  |  |
| --- | --- |
| To | \_BTC Managers; Ilya Asnis; Rick Carini; Raghu Tarra; Venkatesan Thiygarajan; Rahul Choubey; Satish Iyer;  Dallas, \_BTC Embedded, \_QA, Shashidhar B., Ilangovan A., Ravneet A., Venugopal K., Arunoday T., Shubhamsha K; Tung; Satish Iyer; Andrew Einaudi; Amey Shirali; Madan Mohan Nayak; Vikram Dham; Sachin D. Mule; Balaji Raghavan; Tung Pham; Michael Fisher; Raja Bose |
| Cc | \_BTC Embedded; Vineet Govil |
| Contact person | Vimalraj Ganesan, N.Naga Mallika |

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| --- | --- |
| Version  Date | 1.03.080  06/12/2009 |
| Release Candidate | **Beta, GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_06\_12V1\_03\_080](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_06_12V1_03_080)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_06_12V1_03_080> |
| Base version | 1.03.060 |
| Known Issues | ATSC transcode path   1. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 2. CC is not supported for ATSC input |
| Fixed Issues | 1. (ELMO-739) Pro-HD SNET v1.3.60 :Box reboot is observed on MAC while changing channels multiple times(6-7 times) and change audio tracks in between on QAM video input(Inconsistent observed 2 out of 5 trials) 2. (ELMO-742) Hybrid QAM/ATSC - ProHD box reboots after changing audio track on some channels (Inconsistent, seen many times on some channel such as Ch. 7.1) 3. (ELMO-741) White horizontal line is seen at the bottom of streaming area for Composite and Svideo inputs on LAN Catcher resolution 640X480 - Refer screenshot attached - Consistent 4. (ELMO-736) Pro HD 1.3.53 : When manual remote viewing is failed in SA, box reboots after 2 mins of streaming on reconnection- Inconsistent (Observed 3 out of 7 times ) 5. [SPMBB-341](https://jira.slingmedia.com/browse/SPMBB-341) Pro-HD SNET v1.3.60 :Sling player looses connection with the Slingbox each time while switching video input on Blackberry over RELAY(Consistent on PRO-HD) |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) |  |
| Classification |  |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.22 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks | Tested with SlingNet DLL version 1.3.14 |

# SB : ProHD+SNet

# Release History

Distribution List

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| --- | --- |
| To | \_BTC Managers; Ilya Asnis; Rick Carini; Raghu Tarra; Venkatesan Thiygarajan; Rahul Choubey; Satish Iyer;  Dallas, \_BTC Embedded, \_QA, Shashidhar B., Ilangovan A., Ravneet A., Venugopal K., Arunoday T., Shubhamsha K; Tung; Satish Iyer; Andrew Einaudi; Amey Shirali; Madan Mohan Nayak; Vikram Dham; Sachin D. Mule; Balaji Raghavan; Tung Pham; Michael Fisher; Raja Bose |
| Cc | \_BTC Embedded; Vineet Govil |
| Contact person | Vimalraj Ganesan, N.Naga Mallika |

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| --- | --- |
| Version  Date | 1.03.060  06/05/2009 |
| Release Candidate | **Beta** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_06\_05V1\_03\_060](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_06_05V1_03_060)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_06_05V1_03_060> |
| Base version | 1.03.053 |
| Known Issues | ATSC transcode path   1. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 2. CC is not supported for ATSC input |
| Fixed Issues | ELMO : 737 - LAN / WAN Streaming Pro HD on SPM BB v 1.0.0.3 in Auto Mode and taking conflict or disconnecting from BB and reconnecting on WAN PC Player, player streams in 320X176 resolution instead of 320X240. - Consistent |
| Feature Added |  |
| Feature Updated | Enhanced relay reconnect support is added to reduce the delay in channel change for SPMs |
| Feature Removed |  |
| Specific instructions to QA (if any) |  |
| Classification |  |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.19 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

# SB : ProHD+SNet

# Release History

Distribution List

|  |  |
| --- | --- |
| To | \_BTC Managers; Ilya Asnis; Rick Carini; Raghu Tarra; Venkatesan Thiygarajan; Rahul Choubey; Satish Iyer;  Dallas, \_BTC Embedded, \_QA, Shashidhar B., Ilangovan A., Ravneet A., Venugopal K., Arunoday T., Shubhamsha K; Tung; Satish Iyer; Andrew Einaudi; Amey Shirali; Madan Mohan Nayak; Vikram Dham; Sachin D. Mule; Balaji Raghavan; Tung Pham; Michael Fisher; Raja Bose |
| Cc | \_BTC Embedded; Vineet Govil |
| Contact person | Vimalraj Ganesan, N.Naga Mallika |

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| --- | --- |
| Version  Date | 1.03.053  06/03/2009 |
| Release Candidate | **Beta** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_06\_03V1\_03\_053](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_06_03V1_03_053)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_06_03V1_03_053> |
| Base version | 1.02.130 |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. CC is not supported for ATSC input |
| Fixed Issues | **SlingNet**   1. ELMO-733: Pro-HD SNET v1.3.40 :Manual Remote viewing is failing on MAC player v1.0.8.260 for both configured and unconfigured box(Consistent observed 5 out 5 times) 2. Slingnet122:Pro HD 1.3.40 : Slingbox is connecting to MSG again without closing the old connection. Verified from ethereal logs   **Others**   1. ELMO-683: ATSC/QAM - When changing audio tracks, video pauses momentarily and then macro-block noise is seen 2. ELMO-689: Pro-HD v1.2.110 :Box is rebooting while streaming from Catcher WAN(US box) for QAM(Channel no 94.3) 3. ELMO-690: Pro-HD v1.2.110 : Box is rebooting after multiple conflicts from catcher to sling player and viceversa on QAM video input while streaming in WAN (inconsistent observed only twice) 4. ELMO-703: Streaming: Box reboots on Catcher 57 / Mac v 1.0.9.259 while WAN streaming ATSC ( Ch 11.2, SD Channel) and QAM (Ch 9.2, SD channel )- Consistent 5. ELMO-710: ATSC/QAM - Bottom few lines of video is cropped when streaming in 256x192 or 160x120 resolution 6. ELMO-713: QAM - ProHD reboot itself during WAN streaming on Mac public player 1.0.7.249 7. ELMO-729: When the broadcast returns from a commercial break on a specific channel, CNBC 85.43, customer gets the weak video signal message and is then disconnected from the Slingbox. This is on a PRO-HD with 1.2.100 firmware. I was able to reproduce the issue using 1.5.1.343, 2.0.2.500, Mac 1.0.8.255 and the web SP for Windows. Forcing WMV made no difference. 8. ELMO-670: 'Fps' is not reaching '25' while streaming from Component input of ProHD connected to a 'PAL' DVD Source. 9. ELMO-724: Doing Channel up/down in virtual remote for Hybrid Antenna(FC Box) results in changing channel from either analog to analog/digital to digital even though digital/analog channels are available inbetween.However after rescan issue is not seen-Observed Once 10. ELMO-725: 1.2.100 /1.2.105: If the n/w is lost on WAN while Hybrid Antenna/Cable scanning is progress in SA (184) results in connection lost message in SA. Box continues to show its status busy on LAN and is not accessible in this state till 12-15 mins. 11. ELMO-732: Hybrid ATSC - Number of channels scanned changes and channel tuning is out sequence after box reboot(soft reset) 12. ELMO-734: Slingbox reboot is observed while changing the channel in ATSC (Clip: Ch94\_3\_chopped.ts SD Channel - on ATSC generator in BTC). Issue is observed only with this particular clip. |
| Feature Added | 16:9 (Letterbox and auto) Support |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | 1.Please do full QA test cycle including SUDP, SNATT, CPS and RELAY |
| Classification |  |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.19 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

# SB: ProHD (ELMO)

# Release History

Distribution List

|  |  |
| --- | --- |
| To | Bhanu Kumar Ramappa |
| Cc | Parimal Bajpai; Vineet Govil; Dheeraj Dhondalkar; Rahul Choubey; Varun Tripathi; Shashidhar Banger; Arunoday Thammineni; Venugopal Kompally |
| Contact person | Vimalraj Ganesan |

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| --- | --- |
| Version  Date | 1.02.131  05/12/2009 |
| Release Candidate | **Release to Beta Team** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_05\_12V1\_02\_131](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_05_12V1_02_131)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_05_12V1_02_131/> |
| Base version | 1.02.130 |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-683: ATSC/QAM - When changing audio tracks, video pauses momentarily and then macro-block noise is seen. 2. ELMO-713: QAM - ProHD reboot itself during WAN streaming on Mac pulic player 1.0.7.249 3. ELMO-703: Streaming: Box reboots on Catcher 57 / Mac v 1.0.9.259 while WAN streaming ATSC ( Ch 11.2, SD Channel) and QAM (Ch 9.2, SD channel )- Consistent 4. ELMO-710: ATSC/QAM - Bottom few lines of video is cropped when streaming in 256x192 or 160x120 resolution 5. ELMO-689: Pro-HD v1.2.110 :Box is rebooting while streaming from Catcher WAN(US box) for QAM(Channel no 94.3) 6. ELMO-690: Pro-HD v1.2.110 : Box is rebooting after multiple conflicts from catcher to sling player and viceversa on QAM video input while streaming in WAN (inconsistent observed only twice) 7. ELMO-729: When the broadcast returns from a commercial break on a specific channel, CNBC 85.43, customer gets the weak video signal message and is then disconnected from the Slingbox. This is on a PRO-HD with 1.2.100 firmware. I was able to reproduce the issue using 1.5.1.343, 2.0.2.500, Mac 1.0.8.255 and the web SP for Windows. Forcing WMV made no difference. 8. ELMO-724: Doing Channel up/down in virtual remote for Hybrid Antenna(FC Box) results in changing channel from either analog to analog/digital to digital even though digital/analog channels are available inbetween.However after rescan issue is not seen-Observed Once 9. ELMO-725: 1.2.100 /1.2.105: If the n/w is lost on WAN while Hybrid Antenna/Cable scanning is progress in SA (184) results in connection lost message in SA. Box continues to show its status busy on LAN and is not accessible in this state till 12-15 mins. 10. When sparcs disables message encryption, the streaming was started with the min bit rate for that resolution until first lebowski update happens. 11. When doing channel change from PPC SPM on audio only mode, inconsistently it was streaming video also. 12. It was streaming at 32kbps for dual mono mode instead of 8 or 16kbps. 13. For QVGA min bit rate has been changed from 100 to 90kbps (iPhone requirement) 14. Added some more checking to find out whether IP address in LAN or WAN. |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | You should not treat this temp release as public(GM) or beta release candidate. Please take the responsibility to do further testing and make sure that this release can be used to update customer box who is suffering because of the issue ELMO-729. |
| Classification | Non-WIO, Non-SNET |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.19 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: No |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

Distribution List

|  |  |
| --- | --- |
| To | \_BTC Managers; Ilya Asnis; Rick Carini; Raghu Tarra; Venkatesan Thiygarajan; Rahul Choubey; Satish Iyer;  Dallas, \_BTC Embedded, \_QA, Shashidhar B., Ilangovan A., Ravneet A., Venugopal K., Arunoday T., Shubhamsha K; Tung; Satish Iyer; Andrew Einaudi; Amey Shirali; Madan Mohan Nayak; Vikram Dham; Sachin D. Mule; Balaji Raghavan; Tung Pham; Michael Fisher; Raja Bose |
| Cc | \_BTC Embedded; Vineet Govil |
| Contact person | Vimalraj Ganesan, N.Naga Mallika |

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| --- | --- |
| Version  Date | 1.03.040  05/06/2009 |
| Release Candidate | **Beta** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_05\_06V1\_03\_040](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_05_06V1_03_040)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_05_06V1_03_040> |
| Base version | 1.02.106 (Last Release of ProHd) |
| Known Issues |  |
| Fixed Issues | 1. Box Reboot issue after each manual power cycle of box, which was reported in 1.03.030 release |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | 1.Please do full QA test cycle including SUDP, SNATT, CPS and RELAY  2. All NonSnet issues present in ProHd release 1.02.106 are known issues  3. Bugs fixed upto ProHd SNET release 1.03.030, are included in this release |
| Classification | SNET |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.11 |
| Other details(if any) | Default image upgrade: No (because this is first SlingNET Beta candidate)  Boot loader upgrade: No |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

Distribution List

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| To | \_QA; |
| Cc | Dallas Grove; Shashidhar Banger; Ilangovan Angaiah; Ravneet Ahluwalia; Venugopal Kompally; Shubhamsha Karkada; Arunoday Thammineni; \_BTC Managers; Ilya Asnis; Rick Carini; Raghu Tarra; Venkatesan Thiygarajan; Rahul Choubey; Satish Iyer; \_BTC Embedded; Matthew Feinstein |
| Contact person | Vimalraj Ganesan |

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| --- | --- |
| Version  Date | 1.02.106  04/29/2009 |
| Release Candidate | **GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_04\_29V1\_02\_106](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_04_29V1_02_106)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_04_29V1_02_106/> |
| Base version | 1.02.105 |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Non-Pillar box feature not supported |
| Fixed Issues | 1. ELMO-717: Pro-HD v1.2.105 : Video continues even on switching to audio only mode for ATSC video input on Pocket PC device while changing channels through audio only bitmap controls. 2. ELMO-718: QAM Hybrid - No CC is rendered for any cable analog channel 3. ELMO-720: Streaming : Box Reboots while changing video input between composite and svideo multiple times on PC Player - (Inconsistent, 3/5 times) |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO, Non-SNET |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.11 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| --- | --- |
| Version  Date | 1.02.105  04/23/2009 |
| Release Candidate | **GM** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_04\_23V1\_02\_105](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_04_23V1_02_105)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_04_23V1_02_105/> |
| Base version | 1.02.100 |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Non-Pillar box feature not supported |
| Fixed Issues | 1. ELMO-672: Stream encryption disabled was not restricting the streaming resolution to QVGA 512kbps. 2. ELMO-607: Green colored screen was displaying when switching from NTSC to PAL on WMV-WMA 3. Box was streaming QVGA when black berry request for 176x120. 4. When SPARCS disables the encryption, on starting the streaming, initial Bitrate was 1000 kbps and after 5-7 seconds bitrate drops to 500 kpbs and sustains at 500 kbps, resolution was QVGA. 5. iPhone: For audio mode Dual channel mono, box was streaming @32kpbs. 6. QVGA: Min bitrate changed from 100 to 90kbps. It is for the iPhone requirement. |
| Feature Added |  |
| Feature Updated | 1. MTU Set/Get support – Box does self reboot after accepting the new valid MTU value via slingwizard\_mtu application. 2. CC supported for RF-analog, S-Video and Composite |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO, Non-SNET |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.11 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| --- | --- |
| Version  Date | 1.02.130  04/21/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_04\_21V1\_02\_130](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_04_21V1_02_130)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_04_21V1_02_130/> |
| Base version | 1.02.120 |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. [ELMO-702](https://jira.slingmedia.com/browse/ELMO-702): QAM Multiple Audio Track : Weak or no video signal is seen momentarily followed by valid AV on catcher (57 & 61) and MAC player (1.0.8.255) while changing to audio track which has no audio on QAM. (Seen on FC Box, Channel No 7.1). 2. [ELMO-704](https://jira.slingmedia.com/browse/ELMO-704):Streaming: Player shows weak or no video signal message while streaming Hybrid cable(QAM) even though SA (181) shows found N digital channels and preview is seen in SA for the QAM signal. (Source : QAM Generator at BTC with Valid Clip running on it) 3. [ELMO-707](https://jira.slingmedia.com/browse/ELMO-707): ATSC (LAN) - In LAN environment, "Weak or no video signal detected" is shown for most of the channels that has no issue in WAN environment 4. [ELMO-708](https://jira.slingmedia.com/browse/ELMO-708): ATSC - Channel number sometimes is not shown/updated on Remote. 5. [ELMO-709](https://jira.slingmedia.com/browse/ELMO-709): Unable to stream in Audio only mode with IPhone Sling Player 6. ATSC/QAM: Audio only mode streaming has been taking 5 sec to start. 7. CC enhancement done for low level RF signal is reverted because of the side effect caused. It increased the brightness level on composite video input. ([ELMO-700](https://jira.slingmedia.com/browse/ELMO-700)) |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO, Non-SNET |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.15 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

Distribution List

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| --- | --- |
| To | \_BTC Managers; Ilya Asnis; Rick Carini; Raghu Tarra; Venkatesan Thiygarajan; Rahul Choubey; Satish Iyer;  Dallas, \_BTC Embedded, \_QA BTC, Shashidhar B., Ilangovan A., Ravneet A., Venugopal K., Arunoday T., Shubhamsha K; Tung; Satish Iyer; Andrew Einaudi; Amey Shirali; Madan Mohan Nayak; Vikram Dham; Sachin D. Mule; Balaji Raghavan; Tung Pham; Michael Fisher; Raja Bose |
| Cc | \_BTC Embedded; Vineet Govil |
| Contact person | Vimalraj Ganesan, N.Naga Mallika |

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| --- | --- |
| Version  Date | 1.03.030  04/14/2009 |
| Release Candidate | **Beta** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_04\_14V1\_03\_030](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_04_14V1_03_030)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_04_14V1_03_030> |
| Base version | 1.02.120 (Last Release of ProHd) |
| Known Issues |  |
| Fixed Issues | 1. [SLINGNET-91](https://jira.slingmedia.com/browse/SLINGNET-91): [Pro HD 1.3.10 SB got disconnected while streaming over SNATT with Component-720p and SP thorws Communication error message](https://jira.slingmedia.com/browse/SLINGNET-91) 2. [SLINGNET-106](https://jira.slingmedia.com/browse/SLINGNET-106): ProHd-1-3-20 is not sending the correct capabilities to SPARCS when automatic remote viewing fails 3. [ELMO-675](https://jira.slingmedia.com/browse/SETUP-654): Pro HD-1.3.10:After making the Manual/Automatic Remote Viewing fail for unconfigured SNATT Pro-HD box(1.03.10) in Setup Assistant, Information Tab of the Properties option for the Slingbox is observed that "WAN Access?" 'No' 4. [ELMO-693](https://jira.slingmedia.com/browse/ELMO-693): [SPM PALM can not switch the Video Input when streaming from Pro HD](https://jira.slingmedia.com/browse/ELMO-693) 5. [ELMO-694](https://jira.slingmedia.com/browse/ELMO-694): [SPM PALM stuck in Switching mode when switching between Audio/Normal player modes when streaming from Pro HD](https://jira.slingmedia.com/browse/ELMO-694) 6. [ELMO-696](https://jira.slingmedia.com/browse/ELMO-696): [Not able to downgrade the Pro HD firmware from 1.3.20 to below versions through latest Test Sling Wizard](https://jira.slingmedia.com/browse/ELMO-696) 7. [ELMO-700](https://jira.slingmedia.com/browse/ELMO-700): Streaming : Brightness intensity is more in Composite input on Pro HD 1.2.120 when compared with Pro HD 1.2.100/1.2.110 (Refer screenshot attached ) 8. [ELMO-702](https://jira.slingmedia.com/browse/ELMO-702): QAM Multiple Audio Track :  Weak or no video signal is seen momentarily followed by valid AV on catcher (57 & 61) while changing to audio track which has no audio on QAM. (Seen on FC Box, Channel No 7.1). 9. [ELMO-704](https://jira.slingmedia.com/browse/ELMO-704): Streaming: Player shows weak or no video signal message while streaming Hybrid cable(QAM) even though SA (181) shows found N digital channels and preview is seen in SA for the QAM signal. (Source : QAM Generator at BTC with Valid Clip running on it) 10. [ELMO-707](https://jira.slingmedia.com/browse/ELMO-707): ATSC (LAN) - In LAN environment, "Weak or no video signal detected" is shown for most of the channels that has no issue in WAN environment |
| Feature Added | 1. SlingNet is added |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle including SUDP, SNATT, CPS and RELAY |
| Classification |  |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.15 |
| Other details(if any) | Default image upgrade: No (because this is first SlingNET Beta candidate)  Boot loader upgrade: No |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

# SB : ProHD (ELMO)

# Release History

Distribution List

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| --- | --- |
| To | \_QA; |
| Cc | Dallas Grove; Shashidhar Banger; Ilangovan Angaiah; Ravneet Ahluwalia; Venugopal Kompally; Shubhamsha Karkada; Arunoday Thammineni; \_BTC Managers; Ilya Asnis; Rick Carini; Raghu Tarra; Venkatesan Thiygarajan; Rahul Choubey; Satish Iyer; \_BTC Embedded; Matthew Feinstein |
| Contact person | Vimalraj Ganesan |

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| Version  Date | 1.02.120  04/09/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009\_04\_09V1\_02\_120](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2009_04_09V1_02_120)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2009_04_09V1_02_120/> |
| Base version | 1.02.110 |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. [ELMO-568](https://jira.slingmedia.com/browse/ELMO-568)**:** Streaming: Fast Forward(4X) video is seen momentarily when SPDIF cable is unplugged. 2. [BBIRD-986](https://jira.slingmedia.com/browse/BBIRD-986)**:** 2.0.2 - Slingbox stops streaming and shows "Optimization" after reconfiguration of video input when SPDIF is not connected. 3. [ELMO-685](https://jira.slingmedia.com/browse/ELMO-685): ELMO: Horizontal Green Line is observed at the top of video while streaming on PC Player,Catcher,MAC,SPM below VGA resolution(i.e below 640x480) from S-video,Composite,Analog. 4. [ELMO-688](https://jira.slingmedia.com/browse/ELMO-688): Pro-HD v1.2.110 : White Breaking Horizontal line observed on top of screen while streaming Composite and Svideo inputs on catcher(v1.0.0.57 & 1.0.0.60) for 640x480 resolution.- Refer Screenshot attached 5. [ELMO-666](https://jira.slingmedia.com/browse/ELMO-666): Valid Banner continues to be displayed on PC Player (494) and SPM Clients while streaming video input composite/ svideo/ component for variable encryption (Player - 4 /SPM -1) until control bit is set back to 0 (Fixed encryption) 6. [CATCHER-2083](https://jira.slingmedia.com/browse/CATCHER-2083)**:** Catcher is giving "Network Error" when tried to override Pro-HD multiple times with wrong password 7. Whenever input source resolution changes from lower resolution to higher resolution the streaming didn’t do on higher possible resolution, simply stays back on the current streaming resolution 8. CC enhancement done for low level RF signal |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.15 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

Distribution List

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| --- | --- |
| To | \_BTC Managers; Ilya Asnis; Rick Carini; Raghu Tarra; Venkatesan Thiygarajan; Rahul Choubey; Satish Iyer;  Dallas, \_BTC Embedded, \_QA BTC, Shashidhar B., Ilangovan A., Ravneet A., Venugopal K., Arunoday T., Shubhamsha K; Tung; Satish Iyer; Andrew Einaudi; Amey Shirali; Madan Mohan Nayak; Vikram Dham; Sachin D. Mule; Balaji Raghavan; |
| Cc | \_BTC Embedded; Vineet Govil |
| Contact person | N.Naga Mallika |

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| Version  Date | 1.03.20  03/25/2009 |
| Release Candidate | **Internal release** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V1\_03\_20\_Mar252009](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V1_03_20_Mar252009)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2P/V1_03_20_Mar252009/> |
| Base version | 1.02.110 ( Last released version of ProHd) |
| Known Issues | 1. Bit Rate for ATSC clip to 5.1 channel doesn’t go beyond 2-3 Mbps while streaming using SUDP (LAN). 2. Connection attempt from SlingPlayer using SNATT fails occasionally. |
| Fixed Issues |  |
| Feature Added | 1. CPS and RELAY functionalities are added |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | 1. Please focus on SlingNet related (SUDP ,SNATT,CPS and RELAY) testing only. 2. SUDP(LAN) Connection is changed in this firmware. This firmware is not compatible with current players to stream SUDP(LAN). SUDP(LAN) with this firmware is possible only, with forthcoming player 2.0.3.503 and above. SNATT(WAN) works with all players. |
| Classification | Non-WIO |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.15 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: No |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

Distribution List

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| --- | --- |
| To | \_QA; |
| Cc | Dallas Grove; Shashidhar Banger; Ilangovan Angaiah; Ravneet Ahluwalia; Venugopal Kompally; Shubhamsha Karkada; Arunoday Thammineni; \_BTC Managers; Ilya Asnis; Rick Carini; Raghu Tarra; Venkatesan Thiygarajan; Rahul Choubey; Satish Iyer; \_BTC Embedded; Matthew Feinstein |
| Contact person | Vimalraj Ganesan |

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| --- | --- |
| Version  Date | 1.02.110  03/23/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V\_1\_02\_110\_Mar232009](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V_1_02_110_Mar232009)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2P/V_1_02_110_Mar232009/> |
| Base version | 1.02.100 |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-666: SPARCS banner was not getting timedout. 2. ELMO-665: Blank SPARCS banner was displaying for ATSC. 3. ELMO-672: Stream encryption disabled was not restricting the streaming resolution to QVGA 512kbps. 4. ELMO-607: Green colored screen was displaying when switching from NTSC to PAL on WMV-WMA 5. ELMO-538: Grey bar across the bottom when streaming from any analog video port. 6. ELMO-671: Grey bar across the bottom when streaming from any analog video port. 7. Box was streaming QVGA when black berry request for 176x120. 8. Last session bit rate was not memorized to start the next streaming. |
| Feature Added | 1. CC support added for Composite, S-Video and Analog RF. 2. Non-Pillar box mode supported for ATSC (digital cable and antenna). 3. DSP – Control message priority introduced for better performance. 4. ARM load optimized – Which improves the bit rate on high bit rated HD channel streaming at HD resolution. |
| Feature Updated | 1. MTU Set/Get support – Box does self reboot after accepting the new valid MTU value via slingwizard\_mtu application. |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.15 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

Distribution List

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| --- | --- |
| To | \_Engineering Lead; \_QA; \_US Engineering; \_BTC Managers; Paddy Rao; Venkatesan Thiygarajan; Arun George; Amey Shirali; Madan Mohan Nayak; Vikram Dham; Sachin D. Mule; Balaji Raghavan; Rahul Choubey; Satish Iyer; Andrew Einaudi; Tung Pham; Shashidhar Banger; Ravneet Ahluwalia; Shubhamsha Karkada; |
| Cc | Aparna A. Sarma; Biswaranjan Panigrahi; Harish Nair Rajagopal; Janarthanan Natarajan; Kamran Ahmad; Naga Mallika.N; Pavan Kumar Thatha; Prabakaran Elangovan; Sharath Hariharpur Satheesh; Senthilkumar Krishna Doss; Sooraj M. Raveendran; Vikal Kumar Jain; Vimalraj Ganesan; Rinosh Sasidharan; Gaurav P. Singh; Neeraj Prasad |
| Contact person | N.Naga Mallika |

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| --- | --- |
| Version  Date | 1.03.10  03/12/2009 |
| Release Candidate | **alpha** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V1\_03\_10\_Mar122009](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V1_03_10_Mar122009)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2P/V1_03_10_Mar122009/> |
| Base version | 1.02.070 (This is not over the last released version 1.02.100) |
| Known Issues | 1. Bit Rate for ATSC clip to 5.1 channel doesn’t go beyond 2-3 Mbps. 2. Connection attempt from SlingPlayer using SNATT fails occasionally. |
| Fixed Issues |  |
| Feature Added | 1. This version does not support CPS and RELAY connection Mode. 2. SNATT and SUDP can be tested by changing the SBCore.ini appropriately. |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please focus on SlingNet related (SUDP & SNATT) testing only. |
| Classification | Non-WIO |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.5 |
| Other details(if any) | Default image upgrade: No  Boot loader upgrade: No |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

# SB : ProHD (ELMO)

# Release History

Distribution List

|  |  |
| --- | --- |
| To | \_Engineering Lead; \_QA; \_US Engineering; \_BTC Managers; Paddy Rao; Venkatesan Thiygarajan, Dallas Grove |
| Cc | Aparna A. Sarma; Biswaranjan Panigrahi; Harish Nair Rajagopal; Janarthanan Natarajan; Kamran Ahmad; Naga Mallika.N; Pavan Kumar Thatha; Prabakaran Elangovan; Sharath Hariharpur Satheesh; Senthilkumar Krishna Doss; Sooraj M. Raveendran; Vikal Kumar Jain; Vimalraj Ganesan; Rinosh Sasidharan; Gaurav P. Singh; Neeraj Prasad |
| Contact person | Vimalraj Ganesan |

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| --- | --- |
| Version  Date | 1.02.100  03/03/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V\_1\_02\_100\_Mar032009](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V_1_02_100_Mar032009)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2P/V_1_02_100_Mar032009/> |
| Base version | 1.02.090 |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Does not support non-pillar box mode |
| Fixed Issues | 1. ELMO-664: ELMO: 'Analog' Signal is not getting detected With MTW v 1.5.341 & with Pro Hd 1.2.90.. 2. ELMO-660: Streaming:Multiple audio tracks (QAM/ATSC): Default audio track gets selected when change slingplayer resolution with multiple audio track content. 3. ELMO-668: Multiple Audio Streaming : Default audio track gets selected when user changes Player Audio to either Mono, Stereo, Right, Left or change to Audio Only on the Player (494). 4. ELMO-637: Video is squeezed along the width while streaming from a HD channel from PROHD-1.2.50 which is having a vertical Black bars 5. ELMO-669: Streaming:When switched video input to ATSC/QAM (Not hybrid scan) from other video input,channel number is not getting displayed on the remote panel. 6. MTU –SET/GET feature supported via sling wizard as like earlier sling boxes |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.11 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.02.090  02/13/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V\_1\_02\_090\_Feb132009](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V_1_02_090_Feb132009)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2P/V_1_02_090_Feb132009/> |
| Base version | 1.02.080 |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Does not support non-pillar box mode |
| Fixed Issues | 1. ELMO-246: Work around available for video split issue on Analog RF. 2. ELMO-623 & ELMO-654: Box reboot issue on ATSC |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.11 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.02.080  02/11/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V\_1\_02\_080\_Feb112009](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V_1_02_080_Feb112009)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2P/V_1_02_080_Feb112009/> |
| Base version | 1.02.070 |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Does not support non-pillar box mode |
| Fixed Issues | 1. ELMO-649: Channel missing on hybrid scan – fixed 2. ELMO-610: Audio pass thru goes off - fixed 3. ELMO-246: Work around available for video split issue on Analog RF. 4. ELMO-623: Box reboot issue on ATSC – Stability improved |
| Feature Added | 1. Analog: Non Pillar box mode supported on encode path (S-Video, Composite, Component and RF-analog) |
| Feature Updated | 1. ATSC Audio Track: When user selects the dummy track (No audio data), box switches to first track. |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.11 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| --- | --- |
| Version  Date | 1.02.070  01/30/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V\_1\_02\_070\_Jan302009](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V_1_02_070_Jan302009)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2P/V_1_02_070_Jan302009/> |
| Base version | 1.02.060 |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-638: Pro HD1.2.50:: A/V Sync issue is observed on ATSC LAN Streaming within half an hour 2. Catcher 1999: Catcher is getting hanged when did streaming from Video only channel (channel no- 95.61).Can't do any further operation after that.. 3. ELMO-646: Pro\_HD: While streaming if "No video.." signal message is encountered, box is not recovering even though there is video. On connect from different PC, box starts to stream video. |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.11 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.02.060  01/28/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V\_1\_02\_060\_Jan282009](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V_1_02_060_Jan282009)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2P/V_1_02_060_Jan282009/> |
| Base version | 1.02.050 |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input |
| Fixed Issues | 1. ELMO-626: Streaming: On ATSC/QAM when PC Player is set to stream with 160X120 resolution, Pro HD box is getting request for QVGA and it sets QVGA resolution. 2. ELMO-638: Pro HD1.2.50:: A/V Sync issue is observed on ATSC LAN Streaming within half an hour 3. ELMO-636: 'Weak or no video signal' message is getting displayed for 10sec to 1min if box is power cycled and reconnected to the same box.(inconsistent) 4. ELMO-637: Video is squeezed along the width while streaming from a HD channel from PROHD-1.2.50 which is having a vertical Black bars 5. ELMO-639: 'Weak or no video signal' message is getting displayed on MAC player for coax (ATSC/QAM), If switched from any other video input with no video input connected. 6. ELMO-640: Catcher v50/MAC v1.07.249 when connected to Pro HD v50 in LAN/WAN on ATSC input - Weak or no video signal detected message is coming. 7. ELMO-635: SPARCS provisioning is not working. *(Get the corresponding SA version from Arun George and test)* 8. ELMO-412: PRO-HD: Audio shifts from Left to Right & vice versa on connect and reconnect to the box 9. ELMO-597: SPM S60 : When streaming ATSC/QAM @720p source on device N95 , video shift towards right side 10. Catcher-1986: Catcher 50 : Analog channel number is not being displayed on info when channel is changed from Digital to Analog on Antenna pro-hd hybrid. |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.11 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.02.050  01/22/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V\_1\_02\_050\_Jan222009](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V_1_02_050_Jan222009)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2P/V_1_02_050_Jan222009/> |
| Base version | 1.02.040 |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input   1. ATSC/QAM FULL HD streaming (1920x1080) supported in firmware but there is a limitation in player right now. |
| Fixed Issues | 1. ATSC/QAM: Reboot on WAN streaming. 2. Analog: Garbage line at bottom of the video seen with direct TV set-top box for the resolution VGA and below. 3. Hybrid: in the hybrid channel list, box went to unknown channel and displayed “No video signal” when we request major channel number using numeric key. 4. ATSC/QAM: After long duration streaming. It streamed only audio and video was freeze. 5. ATSC/QAM: AV freeze, if there is no audio data for particular audio track. Now it streams as video only channel. 6. ELMO-627: Box reboot while streaming with antenna in LAN and remove the SPDIF cable and reconnect back. 7. SPM: “Unable to connect to the box” message shows inconsistently when try to get control of SB from SPM using conflict manager. |
| Feature Added |  |
| Feature Updated |  |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.11 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| Version  Date | 1.02.040  01/19/2009 |
| Release Candidate | **Internal** |
| Location of Release | [\\inof1fs1\Common\_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V\_1\_02\_040\_Jan192009](file:///\\inof1fs1\Common_Share\EmbeddedSoftware\SlingboxElmoBetaReleases\2P\V_1_02_040_Jan192009)  <ftp://usof1eng1.slingmedia.com/Builds/Embedded/SlingBox/BetaReleases/SlingboxElmo/2P/V_1_02_040_Jan192009> |
| Base version | 1.02.030 |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input   1. FULL HD streaming (1920x1080) supported in firmware but there is a limitation in player right now. 2. Hybrid scan:    1. Analog channel displays wrong channel number on the remote.    2. SA: After scanning it is not displaying the preview, instead it starts if you go to next page. |
| Fixed Issues | 1. Audio only channel was not streaming 2. ELMO-618: After sending the IR command, black screen flash observed when streaming is going on. 3. ATSC/QAM FULLHD: Box reboots in weak signal 4. ELMO-612: Box reboot when streaming ATSC/QAM with “No space for video” – fixed 5. ELMO-623: Audio Video stuttering in WAM streaming 6. Analog: Garbage line at bottom of the video seen with direct TV set-top box on composite/S-Video/Component for the resolution VGA and below |
| Feature Added | 1. ATSC/QAM Multiple Audio track feature supported |
| Feature Updated | 1. Hybrid scan:    1. Fixed the box reboot issue while scanning for cable    2. For non-ATSC countries, now it scans only for analog. |
| Feature Removed |  |
| Specific instructions to QA (if any) | Please do full QA test cycle |
| Classification | Non-WIO |
| Dependency/  Environment /  Component | Boot loader version: 011  DSP Firmware Version:0.2.11 |
| Other details(if any) | Default image upgrade: Yes  Boot loader upgrade: Yes |
| Tools | ARM  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4  DSP:  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 |
| Remarks |  |

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| 1.02.030 | 12/31/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.02.020 dated 12/10/2008 | | | | |
| Master image | Boot Loader version: v0.0.11  ARM Firmware version: v1.02.030  DSP Firmware version : v0.2.7 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input   1. FULL HD streaming (1920x1080) supported in firmware but there is a limitation in player right now. 2. Hybrid scan:    1. Analog channel displays wrong channel number on the remote.    2. SA: When doing scanning, it does display preview for analog    3. SA: After scanning it is not displaying the preview, instead it starts if you go to next page. | | | | |
| Fixed | 1. ELMO-609: Box reboots when do video input change after IF command | | | | |
| Updated | 1. VC1 HD: Restricted the resolution up to 1280x540. 2. IR command: Reject the fast IR commands for channel up, down and last key. 3. Analog Video Split: Reduced the frequency of occurrence. 4. Component: Full HD (1920x1080) streaming support removed temporarily, the MAX resolution restricted to 1920x540. 5. ATSC/QAM FULL HD: improved the video quality and stability. Max streaming bit rate restricted to 8Mbps. 6. VC1: Improved the stability. 7. Boot loader V011: DDR2 configuration setting changed to improve the ATSC/QAM Full HD stability. | | | | |
| Added | 1. Component: Supported to stream PAL standard 2. ATSC/QAM: All language names given in the ISO 639.2/B standard has been included for multi audio track naming convention 3. Hybrid (Analog+Digital) scan supported (To test this feature, please use SP v~.482 and point to QA.) | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544. 1920x1080 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544, 1920x1080 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.02.020 | 12/10/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.02.010 dated 11/07/2008 | | | | |
| Master image | Boot Loader version: v0.0.9  ARM Firmware version: v1.02.020  DSP Firmware version : v0.2.5 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input   1. FULL HD streaming (1920x1080) supported in firmware but there is a limitation in player right now. | | | | |
| Fixed | 1. Baseband input video split after IR channel control on Motorola DVR 2. Dynamic source resolution change was not detected 3. SA: Input configuration for component & SPDIF without AV cable connected will let system crash. 4. There was a problem in box capability for WMV/H264 encoder on 1280x720 streaming | | | | |
| Updated | 1. DaVinci SOC unused peripherals are set in power save mode to reduce power consumption in order to improve thermal testing. 2. Hw version number is updated based on C1/C2 tuner type (Minor number bit 0: 1=C2; 0=C1]) 3. Ethernet-PHY Transceiver control set to Gain 0.db of insertion loss 4. STF: Flow changed to create codecs for detected resolution and audio only channel. 5. VC1 1280x544: Changes done in VC1 encoding in order to reduce the load while doing decoding at catcher. | | | | |
| Added | 1. ATSC/QAM: TCT integrated to support full HD streaming 2. Analog full 1080i capture and streaming supported | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544. 1920x1080 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544, 1920x1080 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.02.010 | 11/07/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.320 dated 10/24/2008 | | | | |
| Master image | Boot Loader version: v0.0.9  ARM Firmware version: v1.02.010  DSP Firmware version : v0.2.1 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input | | | | |
| Fixed | 1. ATSC/QAM: Echostar channel 2.2 issue 2. Video split issue on baseband inputs when IR channel change is done 3. SPDIF audio pass through output doesn’t work until box network is up [Elmo 239] 4. No banner rendering, “Please get latest SlingPlayer from Slingmedia.com” based on SPARCS control bits [Elmo 557] | | | | |
| Updated | 1. System Manager Health is being monitored in WDT routine also so that HIGH Priority task CPU hog can be detected. 2. Hw version number is updated based on C1/C2 tuner type (Build number Bit 1: [0 = C1, 1 = C2]) 3. Bootloader version 0.0.9    1. Added SPDIF receiver configuration to enable pass through output | | | | |
| Added | 1. ATSC/QAM: Support for field picture decoding 2. VC1 : streaming support of 1280x544 resolution on both encoder & transcoder path 3. Support for new tuner type C2, enabled application start time detection of tuner C1 or C2 4. Critical debug logs [CPU registers, TASK/HISR/LISR context information] when ARM crash due to exception 5. Support for default flash image update as same as current image update through SA / testSlingWizard application | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.320 | 10/24/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.310 dated 10/22/2008 | | | | |
| Master image | Boot Loader version: v0.0.8  ARM Firmware version: v1.01.320  DSP Firmware version : v0.1.53 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input | | | | |
| Fixed |  | | | | |
| Updated | 1. Debug logs refinement and prints 10 recent debug logs of previous power state of box after warm reboot. 2. DSP Link build with proper DSP Bios. 3. Disabled interrupts across ISRs in ARM:DSPLink and DSP:Across encode and decode ISR | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.310 | 10/22/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.300 dated 10/16/2008 | | | | |
| Master image | Boot Loader version: v0.0.8  ARM Firmware version: v1.01.310  DSP Firmware version : v0.1.52 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input | | | | |
| Fixed | 1. VC1 video artifacts 2. RF Analog Video Split Issue fix refinement [VPIF restart delay set as 350 ms] 3. ATSC/QAM: Video frames drop because of wrong timestamps 4. ATSC/QAM: Unnecessary transcoder reset at every channel change | | | | |
| Updated |  | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.300 | 10/16/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.290 dated 10/15/2008 | | | | |
| Master image | Boot Loader version: v0.0.8  ARM Firmware version: v1.01.300  DSP Firmware version : v0.1.50 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input | | | | |
| Fixed | 1. ELMO-246/554: RF analog: Video split solution refinements 2. ELMO-559: Component 1080i: Video discoloration issue 3. ELMO-558: 0 Fps issue, not recovering even after stream restart 4. ELMO-560: Current firmware header without CRC and Hash value as MAC Setup assistant doesn’t support it yet. | | | | |
| Updated | 1. “STREAM\_STARTED” generic event is replaced by BCM group event | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.290 | 10/15/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.270 dated 10/03/2008 | | | | |
| Master image | Boot Loader version: v0.0.8  ARM Firmware version: v1.01.290  DSP Firmware version : v0.1.50 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input | | | | |
| Fixed | 1. RF analog: Video split seen when streaming 2. SPDIF: Streams garbled audio when data type changes from PCM to AC3 in live. 3. Catcher: Gets into bad state on source resolution change 4. Session variable key encryption supported. 5. ELMO\_549: Stop streaming not worked when audio only stream for SPDIF without input. 6. ELMO\_556: PPC Sling player got disconnected with in 5 to 10 mins while streaming from component SPDIF (without cable connected) | | | | |
| Updated | 1. Sling logo LED: Animation speed changed for streaming, fw upgrade and factory reset. Also refined for smooth transition between intensity changes. 2. The two step video scaling (H/W + S/W scalar for less than VGA resolution) is back. 3. VC1 Encoder: Improved streaming stability with catcher and MAC for VGA 4. Enabled “stop streaming” when stream data is available to send but client is not consuming 5. FW upgrade: Extended message support is added to verify new firmware header with CRC and Hash Value. | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.270 | 10/03/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.260 dated 09/26/2008 | | | | |
| Master image | Boot Loader version: v0.0.8  ARM Firmware version: v1.01.270  DSP Firmware version : v0.1.50 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input | | | | |
| Fixed | 1. Added check in Capture System so that not to start capture in RF input scanning mode when streaming session is not active - Fix for [ELMO 531 & 539] 2. ANALOG inputs: MAC client AV Sync issue 3. SPM: ATSC: 1fps slideshow freeze issue 4. SPM: Incorrect channel major/minor numbers in GET & SET Channel Control response message. 5. DSP crash when multiple control calls are made [Fixed by increasing the number of message buffers between ARM & DSP] 6. Streaming at 1920x544 resolution has bottom white line issue | | | | |
| Updated | 1. ATSC: SNR calculation is updated as per demodulator s/w porting guide v2.05 2. LED: Behavior updated to Rev 4 spec 3. Bootloader version 0.0.8:    1. Changes in DDR PHYCR & SDBCR values per Hw team suggestion to improve signal integrity (should not affect performance)    2. Added N/w & Stream LOGO LED toggle when factory reset is requested by user 4. Enabled bi-linear interpolation in VC1 instead of bi-cubic [This will improve MAC client performance] | | | | |
| Added | 1. Added support to turn ON / OFF LOGO animation while streaming | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.260 | 09/26/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.250 dated 09/19/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.260  DSP Firmware version : v0.1.49 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path   Does not support streaming at 1920x544 and 1680x544 for 1080i TS input | | | | |
| Fixed | 1. WAN IP is not refreshed in SPARCS immediately when box n/w link status is changed. 2. MAC: Corrected the ASF header object count when binary stream is disabled 3. Beta user issue #209: Stream type 0x80 also considered as a valid video stream type. 4. MAC: Stream session timeout due to latency in tuner lock when no signal is connected. | | | | |
| Updated | 1. RF analog: Wait for more iteration before deciding video lock present/ absent. 2. RF analog: Refined the tuner lock detection timings 3. ATSC: Signal strength min max cap refined and added the signal strength weak, normal and strong zones. 4. AC3 decoder: New version integrated 5. LED: Streaming LED remains ON while AV input switch | | | | |
| Added | 1. ATSC: Timestamp discontinuity and rollover recovery logic | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.250 | 09/19/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.240 dated 09/19/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.240  DSP Firmware version : v0.1.47 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 2. Audio control(volume) is not supported for SPDIF and ATSC 3. Video controls are not supported for ATSC 4. ATSC/QAM: Occasional blocks in video for QVGA and lower resolutions | | | | |
| Fixed |  | | | | |
| Updated | 1. H264 Encoder: Improved stability | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.240 | 09/19/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.230 dated 09/18/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.240  DSP Firmware version : v0.1.46 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blocks in video for QVGA and lower resolutions | | | | |
| Fixed | 1. ATSC: Black frame stalled in weak signal after some iteration of stop and start capture resulting in box reboot 2. Analog inputs: Binary stream was not sent in black frame insertion case 3. RF Analog: Black frame stalled and therefore box rebooted in weak signal scenario 4. Streaming using Sling Web player does not work properly | | | | |
| Updated | 1. In I2C failure case, after doing I2C reset, introduced 50msec delay as a settling time 2. LED behavior changed when application is loading 3. RF analog: Instead of clearing sync present/absent interrupts blindly, check the status of these interrupts and clear accordingly | | | | |
| Added | 1. 100msec sleep added before video codecs delete call. This prevents box reboot during no signal connected and streaming ongoing for analog cable/antenna. | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.230 | 09/18/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.220 dated 09/17/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.230  DSP Firmware version : v0.1.46 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blocks in video for QVGA and lower resolutions | | | | |
| Fixed | 1. RF Analog: Channel change/ scan crash 2. RF Analog: Unplug and plug the source feed, video not recovering issue 3. ATSC: When source is 720p, white line seen on top of video. 4. ELMO\_502 5. ELMO\_503 6. ELMO\_517 | | | | |
| Updated | 1. LED: Changed in the behavior 2. VC1: DMA operation refined to improve stability 3. ATSC: AV sync improved 4. I2C: Init and reset optimized – (RF analog scanning time reduced because of this) | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.220 | 09/17/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.210 dated 09/16/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.220  DSP Firmware version : v0.1.45 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blocks in video for QVGA and lower resolutions | | | | |
| Fixed | 1. RF Analog: Channel change/ scan optimized 2. WAN configuration is failing with NAT/PNP supported routers.(Apple router) – ELMO\_381. 3. Stream access permission check added in start control – ELMO\_509. 4. SETUP: Channel 3 is not getting locked after scanning Analog->cable – ELMO\_514. 5. Streaming bit rate is fluctuating around 6500 kbps and not reaching 8 mbps while streaming from 720P resolution channel from QAM input, even while streaming at HD resolution in LAN with sling stream optimization enabled – ELMO\_513 | | | | |
| Updated | 1. LED: Changed in the behavior 2. Changed the min bit rate for QVGA to 100kbps 3. ATSC: AV sync improved 4. ATSC: 720p source streaming optimized | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.210 | 09/16/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.200 dated 09/15/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.210  DSP Firmware version : v0.1.44 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blocks in video for QVGA and lower resolutions | | | | |
| Fixed | 1. ATSC: TS Parser Optimized 2. (Elmo-504) ATSC/QAM channel changes to first available program when invalid <minor> is requested in current <major> group 3. Master image boot loader issue fixed 4. SPM: Green line at the bottom on 160 X 120. 5. ATSC: Proper video signal event(containing correct input resolution) in transcoder path 6. (Elmo 509) WAN streaming was possible on unconfigured box 7. RF Analog: Box crashes after scan (ELMO\_498) 8. Low bit rate transcoding quality improvements | | | | |
| Updated |  | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.200 | 09/15/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.190 dated 09/14/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.200  DSP Firmware version : v0.1.44 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blocks in video for QVGA and lower resolutions | | | | |
| Fixed | 1. RF Analog: Noise is coming on no signal 2. Stream reset on control mode streaming 3. Sling player gets disconnect in case of no input connected on Component + SPDIF 4. SPM: Green line at the bottom on 160 X 120. 5. ATSC: SPM gets disconnected if there is no signal 6. RF Analog: Box crashes after scan (ELMO\_498) | | | | |
| Updated |  | | | | |
| Added | 1. ATSC/QAM: Dynamic bit rate change detection logic for AC3 | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.190 | 09/14/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.180 dated 09/12/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.190  DSP Firmware version : v0.1.43 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blocks in video for QVGA and lower resolutions | | | | |
| Fixed | 1. ATSC: ELMO\_489:  SB goes into bad state and not discoverable, need to do power cycle when scan for ATSC for the SB which was already configured for the QAM 2. ATSC/QAM: Box reboots when switching from audio only mode to AV mode 3. ATSC/QAM: ELMO\_486: Box reboots while streaming from a weak signal channel 4. ELMO-488: Box rebooting on changing streaming resolution from catcher 5. Streaming issue on VC1 with resolution 640x240 in Composite/Svideo/RF input. 6. ATSC/QAM: Channel change issue on Sling Catcher (ELMO\_493) 7. Color bleeding on HVGA and lower resolutions when input source is 480i 8. MAC: Channel change from Audio only to Audio video issue 9. ATSC/QAM: Black frame aspect ratio issue 10. ELMO 460: Black spot seen while streaming 720p 11. ELMO 122: Extra lines on ATSC / QAM resolved 12. ELMO 401: Box reboot / crash after taking control from Mac 13. ELMO 389: SPDIF issue is fixed 14. ELMO 429: Video only channels are supported for Catcher 15. SEA-BREEZE 195 16. SEA-BREEZE 175 | | | | |
| Updated | 1. ATSC/QAM: Program duplication across channels(Freq) avoided | | | | |
| Added | 1. ATSC/QAM: Resume from bad signal stop | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.180 | 09/12/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.171 dated 09/10/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.180  DSP Firmware version : v0.1.39 | | | | |
| Current image | **Default image upgrade: Yes**  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blocks in video for QVGA and lower resolutions | | | | |
| Fixed | 1. ATSC: Bit rate is going up to 6755 kbps when streaming at QVGA resolution for QAM input (ELMO\_473). 2. EPG: Channels are not getting populated under “Received channels list” for ATSC when video input is changed while EPG grid is ON (ELMO\_480). | | | | |
| Updated | 1. ATSC: Black frame timestamp offset increased to solve the Symbian SPM takes long time to enable the menus when it start streaming with no signal channel. 2. System reboot when net stack configuration change is removed 3. H/w scalar (VDCE) is used for all the streaming requested resolutions. 4. MAC player load reduced for VC-1 | | | | |
| Added | 1. WAN access check before stream start for WAN streaming client. 2. Enabled CNS capability | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.171 | 09/10/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.170 dated 09/09/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.171  DSP Firmware version : v0.1.36 | | | | |
| Current image | **Default image upgrade: No**  Boot loader upgrade: No | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blocks in video for QVGA and lower resolutions | | | | |
| Fixed | 1. ATSC:Reset VC1 encoder after resolution change in STF. Solves encoder crash in blank frame generation and video artifacts. 2. Component: When SPDIF is not connected, player disconnects in audio only mode and packetization fails in AV mode | | | | |
| Updated | 1. ATSC: WMA audio encoding supported for video only channel | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.170 | 09/09/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.160 dated 09/08/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.170  DSP Firmware version : v0.1.34 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: No | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blocks in video for QVGA and lower resolutions | | | | |
| Fixed | 1. Force ASF packetizer to send immediately for black / silence frames in transcoder path 2. Missing no video lock event to client in transcoder path 3. Switching input issue from baseband input to QAM/ATSC having “no video signal” channel when player is in audio only mode 4. Inconsistent audio issue in channel 9.3 at FC office | | | | |
| Updated | 1. SlingStream (lebowski) – CPU load based bitrate reduction set at 95% load 2. Optimised Transcoder path for CPU hogging whenever no audio video data available 3. Flushing buffers between encoder & ASF packetization corrected | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.160 | 09/08/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.150 dated 09/05/2008 | | | | |
| Master image | Boot Loader version: v0.0.6  ARM Firmware version: v1.01.160  DSP Firmware version : v0.1.34 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: No | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blocks in video for QVGA and lower resolutions | | | | |
| Fixed | 1. RF digital feed unplug & plug in – video frame stall issue 2. Top line cropping in analog video capture (480i, 480p, 720p, 1080i), to fix artifacts 3. Switching from 480i->1080i->480i was inconsistent on DISH DVR 4. Continuous UDP packet traffic from PRO HD, when another Slingbox in same network starts up 5. Leak of TS parser buffers while transcoder flush 6. ELMO\_435 : Sling Box gets reboot within 1-2 min, when streaming with Audio Only channel of QAM and remove the ANT cable from the SB 7. ATSC/QAM: Channel change in sometimes results in box reboot 8. ATSC: Fixed bottom white line in video 9. ATSC: Ensuring that black frame of right resolution is created in no video signal detected case after STF reset, fix for player crash 10. Transcoder create / delete issue | | | | |
| Updated | 1. Analog/Digital cable scanning progress bar behavior refinement 2. Enable 4x4 transform for QVGA & lower in transcoder path 3. Enable CABAC in transcoder path (H264) 4. New H264 HD encoder library integrated. 5. RC buffer size increased to 10 seconds 6. Prefilter is made off in H264HD encoder 7. Enabled CPU based frame drop 8. Bootloader: Refinement in factory reset request sharing with application | | | | |
| Added | 1. Added RF digital support for CANADA 2. Bootloader: Audio pass thru initialization | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.150 | 09/05/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.140 dated 09/02/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.150  DSP Firmware version : v0.1.29 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blockiness in video for QVGA and lower resolutions | | | | |
| Fixed | 1. Box in busy state when RF digital input scanning is cancelled(ELMO 419) 2. Analog: Extra white line on top of the video for 480p and 720p 3. Analog: Interlace artifacts seen on 480i 4. QAM: No video signal detected message is coming for a while, and then going off while streaming from a weak signal(ELMO 394) 5. Player goes to optimizing state and doesn't continue to stream when the network cable is plugged out and plugged In back while streaming(ELMO 278) 6. Pro HD is getting rebooted consistently while streaming from any channel from QAM/ATSC(ELMO 428) 7. Pro HD is getting rebooting while streaming from a no video signal(ELMO 426) | | | | |
| Updated | 1. Session reuse is allowed when client reconnects with new stream/control socket(ELMO 379) 2. ATSC: Video lock polling for state change identification is delayed by 5 secs at start of stream to avoid “No video lock” message before streaming when ch +/- is done 3. Analog RF : In channel change case previous channel ASF packets flush done 4. ASF stream id parameter value is corrected corresponding to the type of frame 5. Client requested resolution update back to encoder param correctly when stream stops. This should ensure proper Lebowski behavior. 6. ATSC: Packetisation for audio in STF path was getting called with data length zero. Corrected to check for the above condition 7. ASF buffer flush done after IR control | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.140 | 09/02/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.130 dated 08/29/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.140  DSP Firmware version : v0.1.29 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blockiness in video for QVGA and lower resolutions | | | | |
| Fixed | 1. Remote View enable inconsistent issue 2. Box reboot issue when network cable is not connected for more than 1min before box network is up 3. No Video Signal message disappears from player after sometime in analog/digital path 4. Static text problem in de-interlacer 5. Top white line seen in 720p/480p 6. QAM crash seen by BETA user | | | | |
| Updated | 1. Analog input switch delay is reduced 2. Proper handling of force I frame in the STF path. 3. Changes to flush out all messages between ARM and DSP whenever flush is called. 4. Blacking top and bottom lines done just before encoding. 5. Increased cropping lines from 6 lines to 8 lines in VGA ATSC channels 6. Ensure I frame as the first frame sent for packetization after WMW buffer flush / aspect ratio change happens 7. Increased cropping lines from 6 lines to 8 lines in VGA ATSC channels. 8. Changes in Capture ISR to handle interlace fields separately than progressive video. | | | | |
| Added | 1. ATSC: WMV Simple profile support | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.130 | 08/29/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.120 dated 08/27/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.130  DSP Firmware version : v0.1.26 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC/QAM: Occasional blockiness in video for QVGA and lower resolutions | | | | |
| Fixed | 1. Channel change is not happening by pressing '-' or doing a channel down once, while streaming from the first channel in the list (ELMO-359) 2. Firmware upgrade fails when done using Setup Assistant 3. Channel scanning Progress status bar update starts & finishes twice for a single scanning for the RF analog cable i/p.(ELMO-358) 4. Box continues to stream from component even though input is changed to coax 5. Setup Assistant:'Your input not loaded....' and 'Your input not save.....' messages are coming, when we click on reset in the setup assistant for analog input of PRO HD(ELMO-355) 6. Channel change is not happening, even if we press channel up multiple times, from the last channel in the list(ELMO-402) 7. ‘No video signal’ is displayed even after valid signal is connected for ATSC/QAM 8. Switching from component/composite/S-VIDEO encoding to transcoding will result failure in transcode create and therefore box hangs 9. Streaming low resolution even when client's cap is at high resolution while input switch is happening from composite/SVIDEO to component/ATSC | | | | |
| Updated | 1. Cubic interpolation to retain maximum video signal. This should ensure better video quality 2. Vertical Anti-aliasing filter is switched off for for better video quality on all inputs 3. Black frame generation(header adjustment)corrected for transcode path and color adjusted to be black(instead of green).(ELMO-241) 4. ATSC/QAM Black frame logic extended on other scenarios also (ELMO-393, 394) 5. For resolutions of QVGA and lower Sling WMV encoder is chosen and for other cases TI’s WMV encoder is chosen. This should give better video quality for QVGA resolution 6. Instead of QVGA water mark level, VGA water mark level is taken for all HD resolutions in sling stream 7. Default bit rate value is changed corresponding to the default resolution (QVGA) | | | | |
| Added | 1. Logic for run time detection of ATSC Demod lock 2. Blacking out of lines at the top and bottom of the frame to avoid white lines. | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.120 | 08/27/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.110 dated 08/25/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.120  DSP Firmware version : v0.1.21 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. Box can go into a bad state if the codec choice is changed from WMV to H264 and video input is changed from Component, Composite or S-Video to ATSC/QAM. This issue is inconsistent. | | | | |
| Fixed | 1. ATSC/QAM: Poor signal scenarios not handled properly 2. Garbled audio is heard after taking control (Using Conflict Manager) from Smart Phone to PC player- Fixed 3. Palm SPM switching does not happen properly between audio mono low to high / stereo low to high 4. Catcher not able to disconnect from the box when no input is connected(ELMO-373) 5. ATSC: 16:9 not displayed correctly 6. Distorted audio is heard from Left and Right channel for S-Video input while playing the Dual Audio DVD(ELMO-357) 7. Box is getting hung while doing channel change with QAM input(ELMO-387) 8. Preview in the Setup assistant is lost, once we click on next after selecting Antenna -> Analog(ELMO-139) | | | | |
| Updated | 1. Video switching made smoother by dropping the video frames if no audio is received from capture 2. Video scalar settings improved which should improve video quality on analog path and ATSC 3. AGC set for analog  L and R audio to make the audio volume settings same as Pro box 4. Video control settings adjusted for component input 5. Optimized scenarios during which frame drops happen while VC1 streaming | | | | |
| Added | 1. ATSC: WMV/WMA streaming max resolution set to VGA 2. TI’s VC1 is integrated in encoder/transcoder paths | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.110 | 08/25/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.100 dated 08/22/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.110  DSP Firmware version : v0.1.16 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. Audio control(volume) is not supported for SPDIF and ATSC 5. Video controls are not supported for ATSC 6. Garbled Video is observed (very rarely) in WAN scenario while streaming from component. | | | | |
| Fixed | 1. ATSC: Video only channel false trigger 2. SPM input switch inconsistent issue [Fix: Net streamer - ASF Mux packets residual bytes are sent in next session while input switch to maintain 3000 bytes boundary] 3. ATSC: ‘Connection to box is lost’ issue when no input lock [Fix: Black video frame is inserted when no input lock] 4. Audio glitch is heard in the transition from PCM to AC3 in SPDIF input | | | | |
| Updated | 1. Analog inputs (Composite/S-Video/RF Analog) default video controls are adjusted 2. NET: Fast retransmit logic corrected to avoid an extra retransmits 3. NET: streaming socket will try to send data even if no data buffer in NET to trigger a probe if receiver adv zero window 4. Firmware update: Timeout check for client chunk arrival is optimized 5. Logic for the fast detection in the transition between AC3 and PCM | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.100 | 08/22/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.089 dated 08/19/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.100  DSP Firmware version : v0.1.16 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. Audio control(volume) is not supported for SPDIF and ATSC 5. Video controls are not supported for ATSC 6. Garbled Video is observed (very rarely) in WAN scenario while streaming from component. | | | | |
| Fixed | 1. ATSC/QAM: Video only channel streaming was not working. 2. In audio only mode the streaming bit rate was not matching with the audio bit rate. 3. Dynamic change in the SPDIF input type was not working with WMA streaming. 4. There was no audio in MAC player, when average bit rate field of ASF header is higher than 40kbps. 5. Artifacts was coming because of the ASF residual packet after ASF buffer flush 6. Wrong extra data info on ASF header for ATSC/QAM 7. Analog audio pass thru have some AGC gain than the real input audio. 8. ATSC/QAM: ASF buffer release was not proper and for every channel change one buffer got vanished. 9. For Dolby test tones – Amplitude has varied when we fed to encoder. 10. ATSC/QAM: Last channel number update was not proper. 11. SPM: Audio only mode streaming on windows mobile was crashing | | | | |
| Updated | 1. AGC got fine tuned and enabled 2. The new AAC library for amplitude distortion of the input signal and also refined MS stereo switching decision 3. Work around is available for pass thru not coming after 2 or 3 hours streaming 4. Improved low signal strength transcoding 5. Changed the message structure to maintain the compatibility with SPM for major and minor channel number handling on ATSC/QAM. | | | | |
| Added | 1. Support to set the video encoder in the STF path to different resolution 2. Support to get the black video frame bitstream in STF path (I Frame H264/WMV) – It has to be integrated on ARM side. 3. RF digital path video encryption support added and enabled in system capability 4. API Flow has changed to support different resolution to set on video encoder on STF path. 5. Network stack stability (LAN/WIFI/WAN): RFC 3782 has been added and refinement on same RFC has done for some corner cases. Other general refinements are also included. | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.089 | 08/19/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.080 dated 08/15/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.089  DSP Firmware version : v0.1.13 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. Audio control(volume) is not supported for SPDIF and ATSC 5. Video controls are not supported for ATSC 6. ATSC: Video only channel streaming will have issues 7. Garbled Video is observed (very rarely) in WAN scenario while streaming from component. | | | | |
| Fixed | 1. SPM input switch does not happen properly – on PALM and other Mobiles 2. UPNP – router configuration was broken 3. Garbled video seen on SPM while stream starting / input switch 4. Input switch from component to ATSC when streaming VGA does not happen properly on Catcher/Mac player. 5. Audio noise when one cable of L/R is removed while streaming in AAC | | | | |
| Updated | 1. Bit rate 8 kbps request is changed to 16 kbps for WMA encoder as it is not supported – this fixes SPM mono low/high audio issue 2. Lebowski: Encoder parameter setting is applied only when current and new values of audio/video bit rate differs 3. Robust timestamp check logic for weak ATSC signal, erroneous conditions and proper recovery | | | | |
| Added | 1. RF digital path video encryption support added [But system capability is not enabled for encryption on any input yet] | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.080 | 08/15/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.070 dated 08/11/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.080  DSP Firmware version : v0.1.9 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544 and 1680x544 for 1080i TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. DVBT streaming is not supported 5. Audio control(volume) is not supported for SPDIF and ATSC 6. Video controls are not supported for ATSC 7. ATSC: Video only channel streaming will have issues 8. Garbled Video is observed (very rarely) in WAN scenario while streaming from component. | | | | |
| Fixed | 1. Aspect ratio issue when switching inputs / HD to SD channels 2. ATSC: Multiple “no video lock” event is restricted to one 3. Analog Scan crash issue 4. Black Frame streaming though valid input present. 5. Loss of Connection whenever SPDIF is not connected while streaming from component. 6. WAN Streaming Optimized 7. ATSC:Channel number sorting based on Major/Minor 8. ATSC: fix for artifacts observed in the ATSC path in error conditions | | | | |
| Updated |  | | | | |
| Added | 1. If there is no data sent from box for more than 2 mins, Reset the system. | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.070 | 08/11/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.060 dated 08/06/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.070  DSP Firmware version : v0.1.7 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1680x544 for 1080i TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. DVBT streaming is not supported 5. Audio control(volume) is not supported for SPDIF and ATSC 6. Video controls are not supported for ATSC 7. ATSC: Video only channel streaming will have issues 8. ATSC: 1920x544 streaming may not have full rate fps | | | | |
| Fixed | 1. ASF Mux packetization failure due to improper timestamps 2. ATSC: Weak signal crash issue 3. ATSC (QAM): Channel change crash issue 4. SlingStream disabled after input switch 5. NET stack 5.4 stall issue 6. Garbled video issue when video switch 7. ASF Mux packet header mem leak when ATSC stream stop 8. WAN Streaming throughput & stability issue 9. SPM: Video flicker issue in ATSC streaming 10. SPM: Video resolution is not retained after input switch 11. Catcher: Streaming issue due to ASF object ID discontinuity in key frames | | | | |
| Updated | 1. Default video control values (bright, con, sat, hue) are adjusted 2. ATSC: Freq tune is avoided when channel map has zero list for configured box 3. ASF Binary stream is enabled / disabled based on client request 4. NET stack 5.4 release mode is integrated with WINDOW\_SIZE as 32000 & MAX\_RETRANSMITS as 12 5. POSIX 1.9e libs are integrated 6. Added conditional check to drop enc data having improper timestamp before ASF mux 7. Streaming sock validity check is optimized in Net streamer task 8. Net streamer socket Nagle algorithm is enabled to improve WLAN streaming 9. SPDIF & ATSC volume gain is switched off 10. SlingStream applying conditions are improved in Net streamer 11. ATSC: Explicit number channel change will automatically correct to first available minor number for the given major number 12. ATSC: Major and Minor channel number values are extended to UI16 values (max 65535) 13. Monitoring client connection while RF scanning and abort when connection is lost | | | | |
| Added | 1. ATSC: 1920x544 streaming support with CPU load based frame drop logic | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB/QAM) SD Streams | DVBT SD Streams | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB/QAM) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544, 1920x544 |
| ATSC (8VSB/QAM) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |

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| 1.01.060 | 08/06/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.050 dated 08/02/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.060  DSP Firmware version : v0.1.6 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544, 1680x544 for 1080i TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. DVBT streaming is not supported 5. Audio control(volume) is not supported for SPDIF and ATSC 6. Video controls are not supported for ATSC 7. ATSC: Video only channel streaming will have issues | | | | |
| Fixed | 1. Video freeze observed at the time of streaming or doing start/stop continuously. 2. QAM: continuous channel change +/- crashes box. 3. SPDIF: Dynamic audio type change (PCM / Dolby) is not handled | | | | |
| Updated | 1. Black frame generation is optimized when video input is not connected 2. ATSC: Signal strength monitoring is done on demodulator while streaming for logging purpose 3. NET stack lib in debug mode version 4. POSIX libraries are reverted to version 1.9 | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.01.050 | 08/02/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.040 dated 07/31/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.050  DSP Firmware version : v0.1.6 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544, 1680x544 for 1080i TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. DVBT streaming is not supported 5. Audio control(volume) is not supported for SPDIF and ATSC 6. Video controls are not supported for ATSC 7. ATSC: Video only channel streaming will have issues | | | | |
| Fixed | 1. ATSC: Switching between H264 & WMV leads to system instability 2. Video artifacts in component input after RF input scanning 3. Channel change issue in RF input on SPM 4. ASF Muxer, Encoder / Transcoder create fails due to memory allocation failures | | | | |
| Updated | 1. ATSC: SPS-PPS data in transcode path for client TDB seek 2. ARP request are sent to client at every minute to maintain network connectivity while streaming 3. ASF Muxer will have one time buffer allocation for all streaming session | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.01.040 | 07/31/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.030 dated 07/29/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.040  DSP Firmware version : v0.1.5 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544, 1680x544 for 1080i TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. DVBT streaming is not supported 5. Audio control(volume) is not supported for SPDIF and ATSC 6. Video controls are not supported for ATSC 7. ATSC: Video only channel streaming will have issues 8. Switching between H264 & WMV is not stable. | | | | |
| Fixed | 1. Audio bitrate in lebowski mode always at 32kbps 2. QAM: Audio only channel issue 3. Box crashes when video input is switched between ATSC and other inputs. 4. Whenever DSP image is corrupted while firmware upgrade then factory reset is required. 5. Slingbox is crashing when changed video input from QAM audio only channel to any other video input 6. WAN Streaming throughput issue reported in recent releases (BTC-US 10kbps, US-US 80kbps) 7. Video Jerk whenever SPDIF is not connected. | | | | |
| Updated | 1. Net stack 5.3 in release build mode 2. Client request message reading part is refined | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.01.030 | 07/29/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.020 dated 07/29/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.030  DSP Firmware version : v0.1.5 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported    3. 1920x544 streaming will not support full frame rate (30) 2. DVBT streaming is not supported 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC: Video only channel streaming will have issues | | | | |
| Fixed | ATSC/QAM:   1. When we go to audio channel from AV channel, the TS output buffer is getting overflow. There is no consumption and transcoding is not taking place. This is happening in release mode only. In debug mode there is no problem. If we again go to AV channel the streaming is fine. 2. While doing repeated ch+/- among the channels (88 - \*) the stream resolution changes happening very offen. The STF resetting is happening, some times the TS output buffer is getting overflow. There is no consumption and transcoding is not taking place. It has many non-standard (528X408) resolution channels. If we go to some other normal channel the streaming in problematic scenario, the streaming is working fine. 3. Tried several time scanning and ch+/-. After some trial the TS output buffer was getting overflow. There was no consumption and transcoding was not taking place. This time it was not recovered. The streaming became normal after resetting the box only. | | | | |
| Updated |  | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.01.020 | 07/29/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.01.010 dated 07/24/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.020  DSP Firmware version : v0.1.5 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.32.01  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1680x544 for 1080i TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. 1920x544 streaming will not support full frame rate (30) 5. DVBT streaming is not supported 6. Audio control(volume) is not supported for SPDIF and ATSC 7. Video controls are not supported for ATSC 8. ATSC: Video or Audio only channel streaming will have issues | | | | |
| Fixed | 1. Audio volume set in SA is not getting reflected immediately while streaming from player. It gets reflected only after 1 sec of streaming – (ELMO 248) 2. Audio pass-through is not working if network cable is not connected 3. QAM: Refinement in identifying channels clear/scramble type when scanning. Also refinement in finding the AV PIDs when doing CH +/-. 4. Net socket validity check was not exercised when net streamer cannot send any bytes due to bad network condition 5. System crash when unhandled interrupt generation 6. ATSC: When signal strength is low, video has very bad artifacts 7. ATSC: 720P streaming artifacts . 8. ATSC input having resolution 528x480 : streaming artifacts 9. Box doesn’t lock to RF Analog frequency after configuration reset of same input | | | | |
| Updated | 1. DSP Performance optimizations are done .This will impact all streaming resolutions on all video inputs. 2. Hardware version number updated (Build number Bit 0 : 0= (ARM: 337.5, DSP: 675, DDR: 310.5) MHz, 1=(ARM: 297, DSP: 594, DDR: 297) MHz) 3. Crop parameters are updated for all inputs (including ATSC) based on input source resolution 4. ATSC: 1920x544 streaming is allowed | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.01.010 | 07/24/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.120 dated 07/21/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.01.010  DSP Firmware version : v0.1.2 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC: Video or Audio only channel streaming will have issues | | | | |
| Fixed | 1. Preview in the Setup assistant is lost, once we click on next after selecting Antenna -> Analog.(ELMO 139) 2. Preview is not coming in Setup Assistant before scanning ATSC. But ATSC Preview is coming after scanning complete.(ELMO 258) 3. Channel 3 is not getting locked while scanning RF-> analog.(ELMO 286) 4. Pro HD Slingbox got crashed three times while scanning analog Cable. (ELMO 272) 5. Streaming bitrate in LAN got stuck around 1400Kbps.SlingStream Opimization is enabled.After this changed the settings to manually and set the Bitrate value to 6000Kbps.Then 6000Kbps bitrate is reached in 5-6 seconds. (ELMO 270) 6. The Volume set in the Master Audio/Video settings is not reflected while streaming.(ELMO 248) 7. Setup: After successful configuration of the slingbox with Composite & Coax, automatic streaming does not start at all.(ELMO 276) 8. AutoVideo detection for unconfigured Slingbox is not working with Coaxial video input. (ELMO 195) | | | | |
| Updated | 1. Reverted to Nuclues NET5.3 stack 2. New Codec Engine(v 2.10.01) migration 3. ATSC:720P streaming - optimized 4. ATSC: If preferred audio track is not available then the first available audio track is selected | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.120 | 07/21/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.110 dated 07/14/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.120  DSP Firmware version : v0.0.48 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC: Video or Audio only channel streaming will have issues | | | | |
| Fixed | 1. Auto-video detection for unconfigured boxes is not working properly when only co-axial or only composite i/p is connected 2. WAN streaming throughput not going beyond 80kbps 3. Video freeze when SPDIF audio input is disconnected. 4. Audio noise when SPDIF (DTS) input is connected 5. RF Digital channels total channel count is inconsistent in SA after scanning & SP Information tab 6. Color artifacts seen in RF Analog (PAL) 7. Mobile Client: RF Ch number shown while streaming SVideo input 8. Mobile Client: Letter box mode not handled properly 9. Mobile Client: WMA data not streamed correctly at 48kbps 10. Box is not set to busy state when scanning digital cable/antenna 11. Channel number displays 000 in remote control UI at start of streaming for ATSC 12. Box hang/streaming issues while RF Coax analog input switch 13. Audio streaming issue when same channel is streamed back after channel up/down | | | | |
| Updated | 1. Migration to Nuclues NET5.4 stack 2. NET stack built in release mode with workaround for instability issue 3. Better rate control in AAC for WAN streaming | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.110 | 07/14/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.100 dated 07/11/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.110  DSP Firmware version : v0.0.46 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC: Video or Audio only channel streaming will have issues | | | | |
| Fixed | 1. Green patch has seen when streaming 480i in component. 2. ATSC (8VSB):    1. Channel up and then do continuous channel down, there is no audio.    2. Frame skip happens while streaming 720p stream | | | | |
| Updated | 1. Smooth streaming on cable disconnect and re-connect | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.100 | 07/11/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.090 dated 07/09/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.100  DSP Firmware version : v0.0.45 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC: Video or Audio only channel streaming will have issues | | | | |
| Fixed | 1. Analog cable: Box is getting crashed when selecting the coaxial video input in Setup Assistant. 2. Network configuration for new IP request will restart (reboot) entire system and will come up with new network configuration. This should fix remote viewing crash issue. 3. Audio 16KHz sampling rate capture issue for left mono/right mono/mono modes. 4. WMA encoder bit rate issue for 48, 16 kbps 5. Analog Audio is not getting muted when audio control(volume) brought to zero 6. Component : Artifacts observed while streaming 1920X540 | | | | |
| Updated | 1. Default audio/video control settings | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.090 | 07/09/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.070 dated 07/01/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.090  DSP Firmware version : v0.0.44 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Audio control(volume) is not supported for SPDIF and ATSC 4. Video controls are not supported for ATSC 5. ATSC: Video or Audio only channel streaming will have issues | | | | |
| Fixed | 1. De-interlacing artifacts seen while streaming VGA resolution 2. Component : 1080P video detection 3. Component pass through noise issue when RF Analog / Digital (ATSC) streaming is ON – fixed in 1.0.080 also 4. Cannot connect to box when network restarts – on router Linksys WRT3000N | | | | |
| Updated | 1. Scan events contain clear and scrambled channel info 2. Watch Dog Timer Enabled 3. Video-lock present/absent detection while streaming 4. USB renabled with proper fix(was disabled in 1.0.060) | | | | |
| Added | 1. Audio Video controls added for most inputs 2. Black frames are sent when no video input is detected | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p 720p60, 1080i60 | 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.080 | 07/03/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.040 dated 06/26/2008 (Not from 1.0.070) | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.080  DSP Firmware version : v0.0.42 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Analog video / audio decoder chip controls are not supported 4. ATSC: Video or Audio only channel streaming will have issues | | | | |
| Fixed | 1. Component pass through noise issue when RF Analog / Digital (ATSC) streaming is ON | | | | |
| Updated |  | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p, 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.070 | 07/01/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.060 dated 06/30/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.070  DSP Firmware version : v0.0.43 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. ATSC: Video only channel streaming will have issues 4. Audio Mode: Mono mode for AAC is not supported. Left mono and right mono modes for mobile players are not tested. | | | | |
| Fixed | 1. Box reboots while configuring an unconfigured box 2. Video control setting values are not correct for composite / svideo input | | | | |
| Updated | 1. Asynchronous channel event to client will be retried once if it fails at first attempt 2. Watch dog timer (WDT) is disabled (Rolled back). | | | | |
| Added | 1. 480p input streaming | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 480p, 720p60, 1080i60 | 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.060 | 06/30/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.050 dated 06/28/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.060  DSP Firmware version : v0.0.43 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. ATSC: Video only channel streaming will have issues 4. Audio Mode: Mono mode for AAC is not supported. Left mono and right mono modes for mobile players are not tested. | | | | |
| Fixed | 1. ATSC transcode path    1. QAM: Not all channels are streaming issue | | | | |
| Updated |  | | | | |
| Added | 1. Audio modes:   Stereo, Left Stereo, Right Stereo and mono audio modes are supported.   1. Watch dog timer (WDT) is enabled. If box hangs then WDT resets the box automatically. | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.050 | 06/28/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.040 dated 06/26/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.050  DSP Firmware version : v0.0.42 | | | | |
| Current image | Default image upgrade: No  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. ATSC: Video or Audio only channel streaming will have issues | | | | |
| Fixed | 1. ATSC transcode path    1. Random box crash while streaming    2. Audio only channel streaming issue    3. AV Channel streams only audio after a channel change from audio only channel    4. Manual mode streaming crash issue 2. Analog inputs : Green flash while switching between inputs | | | | |
| Updated |  | | | | |
| Added | 1. Audio(volume) control for RF Analog/Component(only for L/R, not for SPDIF)/SVIDEO/Composite 2. Video control for RF Analog/Composite/SVIDEO | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.040 | 06/26/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.030 dated 06/25/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.040  DSP Firmware version : v0.0.42 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Analog video / audio decoder chip controls are not supported 4. ATSC: Video or Audio only channel streaming will have issues | | | | |
| Fixed | 1. Unconfigured box disappears in network when no valid video input is connected | | | | |
| Updated |  | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.030 | 06/25/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.020 dated 06/25/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.030  DSP Firmware version : v0.0.42 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Analog video / audio decoder chip controls are not supported 4. ATSC: Video or Audio only channel streaming will have issues | | | | |
| Fixed | 1. MTW:"Test has failed" error message get displayed in MTW application when only coax is connected. 2. MTW: Component video input streams in the preview window for that of ATSC video input. 3. Video is not seen when streaming is started from an input where cable is disconnected and connected after stream is started from player. | | | | |
| Updated |  | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.020 | 06/25/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.010 dated 06/19/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.020  DSP Firmware version : v0.0.42 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Analog video / audio decoder chip controls are not supported 4. ATSC: Video or Audio only channel streaming will have issues | | | | |
| Fixed | 1. ATSC: Channel change issues 2. RF Analog: Streaming fails most of the time 3. RF Analog: Noise is observed during channel change & instable 4. [MTW: Application does not detect the Coax and ATSC signal & window gets freeze while detecting the Composite video input also unable to proceed the application](https://jira.slingmedia.com/browse/ELMO-178) 5. Video input is changed to component after remote view setup | | | | |
| Updated | 1. VDCE interrupts are dynamically enabled for ARM when required | | | | |
| Added | 1. SPDIF auto audio detection for unconfigured boxes 2. AC3 decoded PCM data dump support | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.010 | 06/19/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 1.00.000 dated 06/17/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.010  DSP Firmware version : v0.0.42 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Analog video / audio decoder chip controls are not supported | | | | |
| Fixed | 1. RF Analog: Channel change may result in video split 2. ATSC : 720P60 Streaming issue 3. ATSC : Audio PID getting invalid randomly 4. SPDIF( PCM input) audio gain is low 5. Box crashes while switching from component input to RF input | | | | |
| Updated | 1. ATSC : Scramble Channel Rejection 2. ATSC : Audio stream scrambled data handling logic  refinements 3. Client message header underrun case is handled 4. Increased the Max no of channel possible occurrence in single frequency from 40 to 60 5. If number of programs exceeds the max we limit the number of programs to max possible. Previously it just rejected that frequency and not accepted any channels. | | | | |
| Added | 1. ASF Binary stream (OOB) is supported in transcoder path 2. Added Channel number and unsupported signal flag into binary stream key frame info parameters for encoder path 3. Analog inputs: Video i/p resolution change detection and lock detection on-the-fly | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 1.00.000 | 06/17/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.260 dated 06/12/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v1.00.000  DSP Firmware version : v0.0.41 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Analog video / audio decoder chip controls are not supported 4. RF Analog: Channel change may result in video split 5. ASF Binary stream (OOB) is not supported in transcoder path | | | | |
| Fixed | 1. ATSC: Streaming issue at 689/695 MHz is resolved by setting ATSC demodulator output mode as non-inverted 2. No preview from Composite / SVideo input after automatic firmware upgrade in SA (ELMO-172) 3. System hangs when composite input is not connected while MTW testing (ELMO- 162, ELMO--163) 4. Box name is not in router attached list after successful DHCP IP fetch request (ELMO-158) 5. ATSC Channel change related issues (ELMO-167, ELMO-168, ELMO-169) 6. ATSC: Fast channel change – DSP hang issue. 7. ATSC streaming issue for 720p60 TS input. 8. Firmware upgrade sometimes results in session timeout in wireless mode 9. Symbian client dynamic resolution change issue | | | | |
| Updated | 1. Extra firmware chunks from client are ignored and sending positive response so that error won't get reported in SA | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 0.10.260 | 06/12/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.250 dated 06/10/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.260  DSP Firmware version : v0.0.40 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path    1. Does not support streaming at 1920x544, 1680x544 for 1080i TS input    2. Only up to QVGA WMV/WMA based streaming is supported 2. DVBT streaming is not supported 3. Analog video / audio decoder chip controls are not supported 4. RF Analog: Channel change may result in video split 5. ASF Binary stream (OOB) is not supported in transcoder path | | | | |
| Fixed | 1. Image corruption issue: The problem will happen if firmware upgrades in a board (which has lower version of default image than what is being upgraded) fails during DSP image is getting flashed. (ARM will be first one, after its completion DSP image gets flashed) 2. IR blasting learnt code issue – multiple key presses are required. (A GET KEY MAP operation is added to change UEI’s state, before learnt code blasting) 3. Network interface for client HTTP message receive is optimized. It should fix connection issue reported in Symbian mobile client & SPARCS HTTP ping timeout. 4. ATSC: Encoder hang issue in STF path | | | | |
| Updated | 1. Default encode types will fall in WMV/WMA even after streaming H264/AAC | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 0.10.250 | 06/10/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.240 dated 06/04/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.250  DSP Firmware version : v0.0.39 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544, 1680x544 1280x544 for 1080i TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. DVBT streaming is not supported 5. Analog video / audio decoder chip controls are not supported 6. RF Analog: Channel change may result in video split 7. ASF Binary stream (OOB) is not supported in transcoder path | | | | |
| Fixed | 1. RF Channel Change from EPG & player remote UI numeric pad issue 2. Audio gain for ATSC / SPDIF (AC3) inputs are low 3. ATSC: Transcoder delete call hangs 4. ATSC: VDCE (Hardware scaler) configuration issue | | | | |
| Updated | 1. ATSC: TS input resolution check algorithm is optimized 2. ATSC: MTW testing freq is set as 701 MHz, (it was 503 MHz in earlier release) 3. Client Message read timeout is being handled by retaining previous part of the message 4. Firmware upgrade can track chunk sequence number for misorder 5. IR chip is reset before learnt code blast for JB chip | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 0.10.240 | 06/04/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.230 dated 05/28/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.240  DSP Firmware version : v0.0.38 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544, 1680x544 1280x544 for 1080i TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. DVBT streaming is not supported 5. Analog video / audio decoder chip controls are not supported 6. RF Analog: Channel change may result in video split 7. ASF Binary stream (OOB) is not supported in transcoder path | | | | |
| Fixed | 1. ATSC: TS Input resolution check algorithm for 1920x1088 2. ATSC: Frame rate setting doesn’t work. It is fixed by frame drop logic to meet the set frame rate requirement. This should solve the 720p60fps issue and control mode / client set manual frame rate issue. 3. ATSC: Interlace artifacts is seen when input TS resolution doesn’t support requested streaming resolution 4. ATSC: Channel scan results are inconsistent 5. Analog RF coax – no auto detection and streaming in SA for unconfigured box 6. Fps is 0 when video input switch from “no video signal” to “valid video signal” input in SA / player | | | | |
| Updated | 1. SlingLOGO animation is updated for smoothness and new patterns for streaming, firmware upgrade / factory reset, standby modes 2. MPEG2 decoder version 1.00.009 | | | | |
| Added | 1. ATSC: supports 720p30, 720p60 TS input 2. ASF Binary stream added (OOB) with aspect ratio, macro vision & video lock flags – for encoder path | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
| ATSC (8VSB) HD (720p30, 720p60) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1280x720 |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 0.10.230 | 05/28/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.220 dated 05/20/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.230  DSP Firmware version : v0.0.35 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Does not support streaming at 1920x544, 1680x544 1280x544 for 1080i TS input, does not support 720p30, 720p60 TS input 3. Only up to QVGA WMV/WMA based streaming is supported 4. DVBT streaming is not supported 5. Analog video / audio decoder chip controls are not supported 6. RF Analog: Channel change may result in video split | | | | |
| Fixed | 1. ATSC: Channel change may not work consistently and may result in a crash. May require a reboot of the box. 2. ATSC: Sometime tuner does not lock to the signal. So stream restart will be required 3. ATSC: Channel scan in SA crashes box sometimes 4. Conflict management, if it is exercised multiple times, then box crashes 5. Wireless LAN firmware upgrade doesn’t work when box is connected to SlingLink turbo 6. RF Analog: Channel change doesn’t work 7. Manual frame rate setting in SlingPlayer doesn’t effect when streaming is off while setting 8. WMA Audio encoder stuck at 32 kbps in SlingStream mode | | | | |
| Updated | 1. ATSC demodulator & tuner drivers are modified per NXP recommendation 2. Conditional check for all stream related SET (set current input, set encode param, set tuner control, etc) messages are refined 3. HD resolution 1440x540 is not allowed for WMV/WMA (it was allowed in .220 by mistake) 4. ATSC: Input TS Stream resolution is validated and proper streaming resolution is chosen 5. POSIX 1.9d components from Mentor Inc is integrated 6. AC3 decoder & AAC encoder build options are optimized | | | | |
| Added | 1. ATSC: Channel change support | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
|  | ATSC (8VSB) HD (720p30) Streams | |  |
|  | ATSC (8VSB) HD (720p60) Streams | |  |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 0.10.220 | 05/20/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.210 dated 05/15/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.220  DSP Firmware version : v0.0.33 | | | | |
| Current image | Default image upgrade: Yes  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Channel change may not work consistently and may result in a crash. May require a reboot of the box. 3. Does not support streaming at 1920x544, 1680x544 1280x544 for 1080i TS input, does not support 720p30, 720p60 TS input 4. Only up to QVGA WMV/WMA based streaming is supported 5. Sometime tuner does not lock to the signal. So stream restart will be required 6. DVBT streaming is not supported 7. Video / audio decoder chip controls are not supported | | | | |
| Fixed | 1. H264 + WMA streaming is broken, though SlingPlayer allows the selection 2. Green bar artifacts seen while streaming 256x192 WMV 3. Wireless LAN firmware upgrade fails 4. In Auto IP – Net LED doesn’t alert by blinking 5. Remote view disabling in SA crashes system | | | | |
| Updated | 1. Audio capabilities updated for multiple encoder types | | | | |
| Added | 1. Default application image upgrade logic is added 2. ATSC: WMV support up to QVGA resolution | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
|  | ATSC (8VSB) HD (720p30) Streams | |  |
|  | ATSC (8VSB) HD (720p60) Streams | |  |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 0.10.210 | 05/15/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.200 dated 05/09/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.210  DSP Firmware version : v0.0.31 | | | | |
| Current image | Default image upgrade: No  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Channel change may not work consistently and may result in a crash. May require a reboot of the box. 3. Does not support streaming at 1920x544, 1680x544 1280x544 for 1080i TS input, does not support 720p30, 720p60 TS input 4. Does not support WMV/WMA based streaming. 5. Sometime tuner does not lock to the signal. So stream restart will be required 6. DVBT streaming is not supported 7. H264 + WMA streaming is broken, though SlingPlayer allows the selection | | | | |
| Fixed | 1. ATSC: Video frame jitter happens at HD resolution when video input switched from any analog input to ATSC and thereafter even with stream restart. May require a reboot of the box to get resolved. 2. ATSC: Channel Scanning & Streaming from an unconfigured box in SA crashes system 3. RF Analog scanning doesn’t work | | | | |
| Updated | 1. Analog input, encoder path VGA Streaming resolution max bit rate increased from 6 Mbps to 8Mbps 2. ATSC: Max bit rate is set as 8Mbps for VGA & Above resolutions 3. ATSC: Box streams only 1440x544 for any HD resolution selection in player | | | | |
| Added | 1. Auto IP support 2. Conflict management support when streaming is ON | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| ATSC (8VSB) HD (1080i) Streams |  | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, 1440x544 |
|  | ATSC (8VSB) HD (720p30) Streams | |  |
|  | ATSC (8VSB) HD (720p60) Streams | |  |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 0.10.200 | 05/09/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.190 dated 05/05/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.200  DSP Firmware version : v0.0.29 | | | | |
| Current image | Default image upgrade: No  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Channel change may not work consistently and may result in a crash. May require a reboot of the box. 3. Does not support streaming at 1920x544, 1680x544 1280x544 for 1080i TS input, does not support 720p30, 720p60 TS input 4. Does not support WMV/WMA based streaming. 5. Sometime tuner does not lock to the signal. So stream restart will be required 6. Video frame jitter happens at HD resolution when video input switched from any analog input to ATSC and thereafter even with stream restart. May require a reboot of the box to get resolved. 7. DVBT streaming is not supported | | | | |
| Fixed | 1. **Video artifacts in sub-QVGA streaming resolution with SD inputs** 2. **Remote view enabling couldn’t be done multiple times** 3. **Encoder path - Force I frame flag is not reset** 4. **ATSC transcoder path streaming in SA crashes the system** 5. ATSC transcoder path - bitrate might vary and Lebowski bitrate may not be set correctly | | | | |
| Updated | 1. HVGA streaming on WMV/WMA quality optimized | | | | |
| Added | 1. Audio only support for Composite, S-Video, Component L/R or SPDIF, RF Coax Analog/Digital 2. Audio - mono mode support for Composite, S-Video, Component L/R, RF Coax Analog | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 320x240, 640x480 |
| ATSC (8VSB) HD (1080i) Streams |  | | 320x240, 640x480, 1440x544 |
|  | ATSC (8VSB) HD (720p30) Streams | |  |
|  | ATSC (8VSB) HD (720p60) Streams | |  |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 0.10.190 | 05/05/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.18 dated 04/29/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.190  DSP Firmware version : v0.0.28 | | | | |
| Current image | Default image upgrade: No  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Channel change may not work consistently and may result in a crash. May require a reboot of the box. 3. Does not support streaming at 1920x544, 1680x544 1280x544 for 1080i TS input, does not support 720p30, 720p60 TS input 4. Does not support WMV/WMA based streaming. 5. Sometime tuner does not lock to the signal. So stream restart will be required 6. Bitrate might vary and Lebowski bitrate may not be set correctly 7. Video frame jitter happens at HD resolution when video input switched from any analog input to ATSC and thereafter even with stream restart. May require a reboot of the box to get resolved. 8. DVBT streaming is not supported | | | | |
| Fixed | 1. ATSC streaming session multiple restart (stop & start) crashes the system. May require a reboot of the box. 2. Video input switch from ATSC to any other input may result in a crash. May require a reboot of the box. 3. ATSC Streaming may result in video freeze or audio-video freeze after a few minutes 4. **Auto analog video detection check starts from currently selected input index instead of component input** | | | | |
| Updated | 1. ATSC : Error handling logic in video timestamp refined 2. Auto **analog video detection happens when no client session is active** | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 320x240, 640x480 |
| ATSC (8VSB) HD (1080i) Streams |  | | 320x240, 640x480, 1440x544 |
|  | ATSC (8VSB) HD (720p30) Streams | |  |
|  | ATSC (8VSB) HD (720p60) Streams | |  |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 0.10.18 | 04/29/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.17 dated 04/24/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.18  DSP Firmware version : v0.0.27 | | | | |
| Current image | Default image upgrade: No  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. ATSC transcode path 2. Stop streaming session may result in a crash. May require a reboot of the box. 3. Channel change may not work consistently and may result in a crash. May require a reboot of the box. 4. Video input switch from ATSC to any other input may result in a crash. May require a reboot of the box. 5. Does not support streaming at 1920x544, 1680x544 1280x544 for 1080i TS input, does not support 720p30, 720p60 TS input 6. Streaming may result in video freeze or audio-video freeze after a few minutes 7. Does not support WMV/WMA based streaming. 8. Sometime tuner does not lock to the signal. So stream restart will be required 9. Bitrate might vary and Lebowski bitrate may not be set correctly 10. DVBT streaming is not supported | | | | |
| Fixed | 1. In video input change (fast switch), if there a change from HD streaming resolution to VGA/lower – then interlace artifacts are seen 2. **Dynamic encoder parameters setting through player option are not reflected on stream.** 3. **In ATSC channel event message to client, the Unicoded name buffer is not initialized** 4. **ATSC stream artifacts** 5. **SPDIF audio selection needs stream restart from client (SA)** 6. **SPDIF AC3 input – transcode to AAC/WMA doesn’t work** | | | | |
| Updated | 1. ATSC - HD resolution streaming is supported (Refer Streaming Resolution Table below) 2. TI’s H264 encoder being used for all streaming resolution (HD, SD, Sub-SD) when H264 encoder option is selected from player | | | | |
| Added | 1. Auto video detection for unconfigured box | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD Streams |  | | 320x240, 640x480 |
| ATSC (8VSB) HD (1080i) Streams |  | | 320x240, 640x480, 1440x544 |
|  | ATSC (8VSB) HD (720p30) Streams | |  |
|  | ATSC (8VSB) HD (720p60) Streams | |  |
|  | ATSC QAM (64, 256) – SD/HD Streams | |  |
|  | DVBT SD Streams | |  |

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| 0.10.17 | 04/24/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.16 dated 04/21/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.17  DSP Firmware version : v0.0.24 | | | | |
| Current image | Default image upgrade: No  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. Component Sources - (576i, 720p50, 1080i50) – are not supported 2. No Auto video detection for an unconfigured box 3. DVBT streaming is not supported 4. In video input change (fast switch), if there a change from HD streaming resolution to VGA/lower – then interlace artifacts are seen 5. ATSC Transcode path streaming stop may crash system 6. Audio breaks & video artifacts may be seen in transcode path – ATSC 7. ATSC – Sub-QVGA streaming is not tested 8. ATSC - HD resolution streaming is not supported 9. After HD H264 encoder usage, any other encoder usage results in 0 Fps. (e.g: Transcoder path to encoder path switch of Composite / SVideo) | | | | |
| Fixed | 1. When HD streaming resolution > 1280xXXX, video input change (fast switch) from Component to Composite / SVideo / RF analog will stream in QVGA 2. HD (1440, 1680) streaming bit rate hovers 40 kbps when SlingStream is enabled 3. HD (1280, 1440, 1680) stream Fps fluctuates drastically (29, 14, 28, etc) | | | | |
| Updated | 1. HD streaming resolution increased to 1920x544 (to be tested on 675 Mhz SOC board) 2. TS parser output buffer to transcoder is re-organized to handle lower bit rated TS input 3. ARM – Nucleus OS timer configuration corrected for (337.5)/2 Mhz operating speed (applicable only for 675 Mhz board) | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544, 1920x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD, HD Streams | ATSC QAM (64, 256) – SD/HD Streams  and  DVBT SD Streams | | 320x240, 640x480 |

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| 0.10.16 | 04/21/2008 | | | | |
| Classification | Non-WIO | | | | |
| Base version | 0.10.15 dated 04/14/2008 | | | | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.16  DSP Firmware version : v0.0.24 | | | | |
| Current image | Default image upgrade: No  Boot loader upgrade: Yes | | | | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | | | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 | |
| Known Issues | 1. Component Sources - (576i, 720p50, 1080i50) – are not supported 2. No Auto video detection for an unconfigured box 3. DVBT streaming is not supported 4. In video input change (fast switch), if there a change from HD streaming resolution to VGA/lower – then interlace artifacts are seen 5. When HD streaming resolution > 1280xXXX, video input change (fast switch) from Component to Composite / SVideo / RF analog will stream in QVGA 6. ATSC Transcode path streaming stop may crash system 7. Audio breaks & video artifacts may be seen in transcode path – ATSC 8. ATSC – Sub-QVGA streaming is not tested 9. ATSC - HD resolution streaming is not supported 10. After HD H264 encoder usage, any other encoder usage results in 0 Fps. (e.g: Transcoder path to encoder path switch of Composite / SVideo) | | | | |
| Fixed | 1. ATSC – input stream error results in video freeze; stream restart is required to continue. 2. Video split happens when video signal is reconnected while streaming 3. HD streaming resolution being set in “player options” results in green video – in case of Composite / SVideo / RF analog input 4. **Network stack instability** 5. Video preprocessor library is optimized for Green-bar issue on top for 256x192 streaming resolution with WMV 6. HD streaming bit rate hovers 1 Mbps when SlingStream is enabled | | | | |
| Updated | 1. H264-HD encoder version 0.0.6 2. HD streaming resolution increased to 1680x544 3. Audio track events to client including language name for RF digital input | | | | |
| Added |  | | | | |
| Remarks | Streaming Resolution Table | | | | |
| Input Type | Video Signal / TS Stream supported | Video Signal / TS Stream unsupported | | Streaming Resolution Supported |
| Composite / SVideo / RF Analog | 480i | 576i | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| Component | 480i, 720p60, 1080i60 | 480p, 576i, 576p 720p50, 1080i50 | | 128x96, 160x120, 256x192, 320x240, 640x240, 640x480, |
| 1080i60 |  | | 1280x544, 1440x544,  1680x544 |
| 720p60 |  | | 1280x720 |
| RF Digital | ATSC (8VSB) SD, HD Streams | ATSC QAM (64, 256) – SD/HD Streams  and  DVBT SD Streams | | 320x240, 640x480 |

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| 0.10.15 | 04/14/2008 | |
| Classification | Non-WIO | |
| Base version | 0.10.14 dated 04/10/2008 | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.15  DSP Firmware version : v0.0.23 | |
| Current image | Default image upgrade: No  Boot loader upgrade: Yes | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 |
| Known Issues | 1. Component Sources - (576i, 720p50, 1080i50) – are not supported 2. No Auto video detection for an unconfigured box 3. Video split happens when video signal is reconnected while streaming 4. DVBT streaming is not supported 5. Randomly HD Streaming restart may crash system 6. In video input change (fast switch), if there a change from HD streaming resolution to VGA/lower – then interlace artifacts are seen 7. ATSC Transcode path streaming stop may crash system 8. Audio breaks & video artifacts may be seen in transcode path – ATSC 9. ATSC – Sub-QVGA streaming is not tested 10. ATSC - HD resolution streaming is not supported 11. ATSC – input stream error may result in video freeze, stream restart is required to continue. 12. HD streaming resolution being set in “player options” results in green video – in case of composite / svideo / RF analog input | |
| Fixed | 1. **UEI IR chip doesn’t respond randomly after few IR learnt code blast – chip reset is done which allows further IR request** | |
| Updated |  | |
| Added | 1. ATSC HD stream input is supported 2. ATSC streaming out resolution – VGA is supported | |
| Remarks | 1. In this release, Debug logs are disabled at start of Slingbox application for stability reasons. | |

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| 0.10.14 | 04/10/2008 | |
| Classification | Non-WIO | |
| Base version | 0.10.13 dated 04/02/2008 | |
| Master image | Boot Loader version: v0.0.4  ARM Firmware version: v0.10.14  DSP Firmware version : v0.0.21 | |
| Current image | Default image upgrade: No  Boot loader upgrade: Yes | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 |
| Known Issues | 1. Component Sources - (576i, 720p50, 1080i50) – are not supported 2. No Auto video detection for an unconfigured box 3. Video split happens when video signal is reconnected while streaming 4. DVBT streaming is not supported 5. Randomly HD Streaming restart may crash system 6. In video input change (fast switch), if there a change from HD streaming resolution to VGA/lower – then interlace artifacts are seen 7. ATSC Transcode path streaming stop may crash system 8. Audio breaks & video jerk may be seen in transcode path - ATSC | |
| Fixed | 1. **Net stack issue on sustained throughput is fixed (migrated to version NET v5.3)** 2. **MTW test for all inputs** | |
| Updated | 1. SPS / PPS NAL units for H264-HD/H264 encoder is enabled 2. Boot loader is updated to configure higher clock (DSP-675, ARM – 337.5, DDR – 310) based on GPIO line 2 (when set to high) configuration. | |
| Added |  | |
| Remarks | 1. In this release, Debug logs are disabled at start of Slingbox application for stability reasons. | |

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| 0.10.13 | 04/02/2008 | |
| Classification | Non-WIO | |
| Base version | 0.10.12 dated 03/28/2008 | |
| Master image | Boot Loader version: v0.0.3  ARM Firmware version: v0.10.13  DSP Firmware version : v0.0.20 | |
| Current image | Default image upgrade: No  Boot loader upgrade: Yes | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 |
| Known Issues | 1. Component Sources - (576i, 720p50, 1080i50) – are not supported 2. No Auto video detection for an unconfigured box 3. Video split happens when video signal is reconnected while streaming 4. DVBT streaming is not supported 5. Randomly HD Streaming restart may crash system 6. Net stack bug limits duration of streaming. Inconsistent timing based on network traffic. 7. In video input change (fast switch), if there a change from HD streaming resolution to VGA/lower – then interlace artifacts are seen 8. ATSC Transcode path streaming stop may crash system 9. Audio breaks & video jerk may be seen in transcode path - ATSC | |
| Fixed | 1. **RF digital input signal strength event error is fixed** | |
| Updated | 1. SPS / PPS NAL units for H264-HD/H264 encoder is disabled 2. WDT signal is set around 30Khz through PWM1 output 3. Reaction time increased to 5 secs when streaming socket is found invalid 4. VC1-HD IRES is integrated | |
| Added | 1. ATSC streaming (QVGA resolution) support added, only SD streams are supported (HD Streams are not supported) 2. Added channel explicit control support for ATSC 3. Separate message added for monitoring RF digital input | |
| Remarks | 1. In this release, Debug logs are disabled at start of Slingbox application for stability reasons. | |

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| 0.10.12 | 03/28/2008 | |
| Classification | Non-WIO | |
| Base version | 0.10.11 dated 03/24/2008 | |
| Master image | Boot Loader version: v0.0.3  ARM Firmware version: v0.10.12  DSP Firmware version : v0.0.19 | |
| Current image | Default image upgrade: No  Boot loader upgrade: Yes | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 |
| Known Issues | 1. Component Sources - (576i, 720p50, 1080i50) – are not supported 2. No Auto video detection for an unconfigured box 3. Video split happens when video signal is reconnected while streaming 4. ATSC / DVBT streaming is not supported 5. Randomly HD Streaming restart may crash system 6. Net stack bug limits duration of streaming. Inconsistent timing based on network traffic. | |
| Fixed | 1. **256x192 resolution streaming (H.264 & WMV) [Bug ID: None]** | |
| Updated | 1. DDR Timing register values refined based on review 2. Hardware scalar (VDCE) restricted to VGA & software scalar used for sub-VGA resolutions 3. HD streaming    1. Resolution increased to 1440x544 for 1080i input    2. It is forced only by H.264-HD encoder. VC1-HD encoder is disabled.    3. AAC encoder is forced with H.264-HD encoder. WMA is disabled with H.264-HD encoder. | |
| Added | 1. Boot loader upgrade on flash support 2. FRQRM (Frame rate & Q regulation mechanism) for H.264-HD encoder added 3. Additional SPS & PPS NAL units are added in ASF header for H.264-HD encoder 4. RF digital (ATSC-8VSB) channel scanning support is added 5. Periodic Signal Strength event to SPlayer/SA for RF digital input is added 6. Audio tracks information event to SPlayer/SA for RF digital input is added 7. Ability to select audio track for RF digital input is added | |
| Remarks |  | |

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| 0.10.11 | 03/24/2008 | |
| Classification | Non-WIO | |
| Base version | 0.10.10 dated 03/06/2008 | |
| Master image | Boot Loader version: v0.0.2  ARM Firmware version: v0.10.11  DSP Firmware version : v0.0.17 | |
| Current image | Default image upgrade: No  Boot loader upgrade: No | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 |
| Known Issues | 1. Component Sources - (576i, 720p50, 1080i50) – are not supported 2. No Auto video detection for an unconfigured box 3. Video split happens when video signal is reconnected while streaming 4. ATSC / DVBT streaming is not supported | |
| Fixed | 1. AV Input fast switch needs manual stream restart from player [Bug ID: 4945] | |
| Updated | 1. DSP framework component version updated from 9 to 15 | |
| Added | 1. AC3 transcode path for SPDIF audio input 2. DSP image, Flash layout corruption recovery | |
| Remarks |  | |

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| 0.10.10 | 03/06/2008 | |
| Classification | Non-WIO | |
| Base version | 0.10.9 dated 02/29/2008 | |
| Master image | Boot Loader version: v0.0.2  ARM Firmware version: v0.10.10  DSP Firmware version : v0.0.13 | |
| Current image | Default image upgrade: No  Boot loader upgrade: No | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 |
| Known Issues | 1. AV Input fast switch needs manual stream restart from player 2. Component Sources - (576i, 720p50, 1080i50) – are not supported 3. No Auto video detection for an unconfigured box 4. Video split happens when video signal is reconnected while streaming 5. ATSC / DVBT streaming is not supported | |
| Fixed | 1. DVBT Channel info verification **[Bug ID: None]** | |
| Updated |  | |
| Added | 1. Hardware version gets modified based on ATSC / DVBT availability   ATSC (US) SKU: 1.0.0, DVBT (EU) SKU: 2.0.0 | |
| Remarks |  | |

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| 0.10.9 | 02/29/2008 | |
| Classification | Non-WIO | |
| Base version | 0.10.8 dated 02/18/2008 | |
| Master image | Boot Loader version: v0.0.2  ARM Firmware version: v0.10.9  DSP Firmware version : v0.0.13 | |
| Current image | Default image upgrade: No  Boot loader upgrade: No | |
| Tools | **ARM**  OS: Nucleus Plus v1.15  CCS: Platinum v3.3  CG: v4.1.4 | **DSP**  OS: DSP/BIOS v5.31.08  CCS: Platinum v3.3  CG: v6.0.08 |
| Known Issues | 1. Input fast switch needs manual stream restart from player 2. Component Sources - (576i, 720p50, 1080i50) – are not supported 3. No Auto video detection for an unconfigured box 4. Video split happens when video signal is reconnected while streaming | |
| Fixed | 1. DHCP IP address on certain routers resolved (DLink) **[Bug ID: None]** 2. Not discoverable when firmware upgrade is cancelled & power cycle of box is done **[Bug ID: 4855]** | |
| Updated | 1. Audio capture buffers modified from discrete to linear form 2. WMV Simple profile enabled 3. SPDIF audio input selection allowed only for COMPONENT input set 4. Boot Loader : If (Current) application is corrupted, load the other one (Default) & vice-versa | |
| Added | 1. ATSC & DVBT Demodulator detection logic 2. ATSC & DVBT TS Lock & Data Capture 3. TSIF (Digital path) & VPIF (Analog path) dynamic switch 4. Stream LED animation (preliminary) 5. TS Parser module & channel collection (DVBT-SDT & ATSC-VCT) | |
| Remarks | * Boot loader will not be updated by current firmware upgrade, one should use master bin for new boot loader. | |

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v0.10.8 02/18/2008

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Changes from earlier version

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.TI's H264-HD encoder version 1.00.005 included, color artifacts fixed [DSP v0.0.13]

.Non-blocking Codec Engine usage leveraged [DSP v0.0.13]

.IR blaster baud range adjusted with JB parts

.CRC verification added for DSP image loading from ARM

.Release mode optimization levels are verified for all dependent projects (-02)

.NIM - network interface module optimization for message reading

BUG FIXES:

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Known Issues:

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v0.10.7 01/19/2008

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Changes from earlier version

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.Video signal detection optimized with retrials

.Fast video input switch disabled

BUG FIXES:

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Known Issues:

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.MTW testing may be unstable sometimes (Black video / video freeze),

power cycle the board to continue

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v0.10.6 01/17/2008

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Changes from earlier version

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.2P board support - Audio decoder AD4622, NAND flash direct booting, MTW tested

.Analog RF streaming is integrated

.USB Stack & Mass storage class is integrated

.SPDIF audio streaming - PCM format is supported

.Pre-configuration of AV inputs are disabled

.Encoder and AV capture stability improved

.Audio port selection among RCA & SPDIF is added

.SD-H264 encoder optimized

BUG FIXES:

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Known Issues:

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.MTW testing may be unstable, power cycle the board to continue

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v0.9.5 01/04/2008

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Changes from earlier version

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.Video capture system optimized

.Component input is set as current AV index at application startup (CES '08 requirement)

BUG FIXES:

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.If no video input connected, then stream start - box is not discoverable

.HD resolution, encoder param input validation added for baseband & analog RF inputs

Known Issues:

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v0.9.4 01/03/2008

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Changes from earlier version

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.VC1 - Video encoder support has been added

BUG FIXES:

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.Encoder type selection fix in SlingStream optimization mode

Known Issues:

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v0.9.3 01/02/2008

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Changes from earlier version

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.VIDEO lock Present / Absent event is being sent at start of streaming

.Contrast & Saturation default set values are adjusted for better color

BUG FIXES:

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.AAC audio encoder bit rate setting doesn't work, always at 32 kbps

.No video input, stream start & stop - box crash

.Control mode streaming issue is fixed

Known Issues:

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v0.9.2 01/01/2008

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Changes from earlier version

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.AAC audio encoder support has been added

.Net streamer optimized for HD SlingStream optimization, which increases to 8000 Kbps

.Audio capture - EDMA dynamic configuration added, which is dependent on encoder

based sample buffer size

BUG FIXES:

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.Audio capture doesn't stop randomly when STOP STREAM request is made

Known Issues:

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v0.9.1 12/28/2007

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Changes from earlier version

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.Max Bitrate for HD on H264 is enabled to 8 Mbps

.SlingStream optimization enabled for HD

.Tested with TinyBird player 2.0.0.379

.Stream encryption is disabled at box capability, which reduces artifacts seen in

HD streaming

."Default" - application image in Flash is corrected from "current" application image,

only if it is found bad through CRC check

.Restore factory default reset tested

BUG FIXES:

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.Video stops but audio streaming continue after random time

Known Issues:

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.Encoder artifacts are minimized with HD - H264

.Based on initial testing, HD (both audio & video) Streaming @ 4 Mbps stops after

- Max: 2 hr 45 mins : Min: 1 hr

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v0.9.0 12/27/2007

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Changes from earlier version

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.Max Bitrate for HD on H264 is restricted to 6.5 Mbps & will be set more in future

revisions when encoder is optimized for it.

.Control mode tested with HD streaming on H264

.Encode param setting: 640x480 will do only VGA & "HD" will do either 1280x544 or

1280x720 or 640x480, based on input source

.Tested with TinyBird player 2.0.0.378

Known Issues:

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.Encoder artifacts are seen with HD - H264

.Video stops but audio streaming continue after random sometime

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v0.9.0 12/26/2007

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Changes from earlier version

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.Product ID is set to 000008

.Tested basic AV configuration, Firmware upgrade with Setup Assistant v1.0.52

.Control mode streaming is enabled

.Fixed 720p capture artifact

.H264-HD encoder is optimized with IRES & Rate Control

.Codec Engine migrated from 2.0 to 2.1

.Capability param added for video 1280x720 resolution

Known Issues:

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.Streaming stability is still under observation

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v0.9.0 12/20/2007

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.Basic Firmware for 1P board

.Enabled AV streaming from following video inputs:

Composite - 480i, 576i

SVideo - 480i, 576i

Component - (480i, 720p60, 1080i60)

.Streaming VGA & Sub-VGA - are enabled with WMV/WMA encoders

.Streaming HD (1280x544 & 1280x720) - are enabled with H264/WMA encoders

Limitations:

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.SPDIF audio not supported

.Component Sources - (576i, 720p50, 1080i50) - not supported

.ATSC / DVBT inputs not supported

.Analog RF streaming is not integrated

.USB not supported

.No HD-VC1, AAC encoders support

.No WIO initiatives

.H264-HD encoder is not optimized with IRES & Rate Control

.No Auto video detection for an unconfigured box

Known Issues:

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.Product ID is set to 000001 as that of Slingbox-PRO until ELMO support is enabled in

Setup Assistant PC application. Also box is enabled with pre-configured AV inputs.

.Stream start / stop on HD makes system unstable sometimes

.Video input switch makes system unstable if there needs a switch between

H264-HD to WMV encode

.Video split happens when video signal is reconnected while streaming

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