Futurecom Repeater Configurator (FRC)
Release Notes – January 2024

FRC Software (6A083X06):   New Version:**1.40**   Old Version: **1.36**

Note: FRC 1.40 software supports all hardware platforms: DVR-LX®, DVR, VRX1000, PDR8000®.

FRC 1.40 contains three main components to service all hardware programming needs.

1. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.40
2. Configurator for PDR8000®, ver. 1.40
3. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX repeater and PDR firmware versions**. It supports reading and writing to all previously configured devices.

FRC Notes for VR release 1.85

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home → Support → Documentation and Software

FRC New Features / Enhancements:

- FRC introduces a new menu entry to create a Support package, enabling user to save EPR, DCD, DPD templates & log files for debug purposes into a single ZIP file. [DVR-495]
- FRC no longer requires a password to access "**PSU IDs Allowed**" window. [DVR-970]

FRC Issues Fixed:

- In **'Digital Setup',** the default value for '**Telephone Interconnect CCT'** is now changed to 10min [DVR-2172]
- In **'Repeater Channel Setup',** the default value for '**CCT'** is now changed to 10min [DVR-2172]

FRC Field Names Updates: N/A

FRC Known Issues: N/A

FRC Notes for PDR8000® release 5.05

PDR8000® New Features / Enhancements:

- FRC now saves its version info in Repeater image & configuration templates. ^{PDR-696}

- FRC introduces a new menu entry to create a Support package enabling user to save EPR, DPD templates & log files for debug purposes into a single ZIP file. ^{PDR-973}

- FRC allows user to access "Rx Duplexer Losses" & "Tx Duplexer Losses" fields in each Deployment Profile's "General Configuration" window, to configure PDRs according to the duplexer being used. ^{PDR-942}

PDR8000® Issues Fixed:

- FRC hides some Deployment Profiles when loading multiple DPD templates having conflicting license information. ^{PDR-943}

PDR8000® Field Names Updates: N/A

PDR8000® Known Issues:

- FRC does not restore some changed parameters (Rx/Tx frequency, Tx power, RSSI Off Hyst. RSSI Speed, Squelch Speed, Temperature Alarm) when exiting the Monitoring screen window. ^{PDR-968}
  Workaround: manually restore any of those fields if changed, or restart PDR8000.

- FRC may not allow editing of the "Personality Description" field in the "Personality Information" window. ^{PDR-888}
  Workaround: utilize keyboard <delete> key on this field first, then type the desired characters.

HISTORICAL RELEASE NOTES FOR REFERENCE

Futurecom Repeater Configurator (FRC)
Release Notes – October 2023

FRC Software (6A083X06):   New Version:**1.36**   Old Version: **1.35**

Note: FRC 1.36 software supports all hardware platforms: DVR-LX®, DVR, VRX1000, PDR8000®.

FRC 1.36 contains three main components to service all hardware programming needs.

4. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.36

5. Configurator for PDR8000®, ver. 1.36

6. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX repeater and PDR firmware versions**. It supports reading and writing to all previously configured devices.

FRC Notes for VR release 1.85

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home → Support → Documentation and Software

FRC New Features / Enhancements: N/A

FRC Issues Fixed:

- In **'VR Common Setup'** under **'Power Up Options'**, if **'Mode'** is selected as **'Fixed'** the field below **'Fixed Mode'** is greyed out [DVR-2367]

- When disabling the field **'VR Local Mode Allowed'** in the **'VR Common Setup'** menu, the configuration tool, FRC, shuts down unexpectedly [DVR-2359]

- The incorrect function call implementation was fixed in the **RSSI Setup screen**. The **Local Mode Allowed** and Operating Mode fields were enabled in the RSSI Setup screen [DVR-2380]

FRC Field Names Updates: N/A

FRC Known Issues: N/A

FRC Notes for PDR8000® release 5.04

PDR8000® New Features / Enhancements:

- N/A

PDR8000® Issues Fixed:

- N/A

PDR8000® Field Names Updates: N/A

PDR8000® Known Issues:

- FRC may not allow editing of the "Personality Description" field in the "Personality Information" window.   PDR-888
  Workaround: utilize keyboard <delete> key on this field first, then type the desired characters.

Futurecom Repeater Configurator (FRC)
Release Notes – August 2023

FRC Software (6A083X06):   New Version:**1.35**   Old Version: **1.34**

Note: FRC 1.35 software supports all hardware platforms: DVR-LX®, DVR, VRX1000, PDR8000®.

FRC 1.35 contains three main components to service all hardware programming needs.

7. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.35

8. Configurator for PDR8000®, ver. 1.35

9. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX repeater and PDR firmware versions**. It supports reading and writing to all previously configured devices.

FRC Notes for VR release 1.85

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home → Support → Documentation and Software

FRC New Features / Enhancements:

- Announcing Legacy Template DPD is nearing end of support, recommendation is switched to use DCD template. [DVR-2241]

- Legacy features, VRS-EP Options window & Tables window will no longer be accessible with firmware version 1.85 or later. [DVR-2201]

FRC Issues Fixed:

- Resume displaying Channel-0 Base Frequency & Channel No. Spacing in Frequency Band Window [DVR-1914]

- Copy button issue in Repeater Channel Setup window [DVR-2214]

- Primary/Secondary window Business rule not forced even when Pri/Sec Processing is disabled [DVR-1984]

FRC Field Names Updates: N/A

FRC Known Issues:

- When disabling the field **'VR Local Mode Allowed'** in the **'VR Common Setup'** menu, the configuration tool, FRC, shuts down unexpectedly [DVR-2359]

- The incorrect function call implementation was fixed in the '**RSSI Setup screen'**. The '**Local Mode Allowed'** and '**Operating Mode'** fields were enabled in '**RSSI setup screen'** [DVR-2380]

   Workaround for the above issues (DVR-2359 & DVR-2380):

- Load data from repeater
- Open RSSI Setup window and ensure '**Operating Mode'** field is set to "OFF" or "SYSTEM"
- Close RSSI Setup window
- Load dcd/dpd file (overlays template onto current FRC displayed config) or change '**Local Mode Allowed'** field if not using a dcd/dpd file
- Save changes to repeater

FRC Notes for PDR8000® release 5.04

PDR8000® New Features / Enhancements:

- Improve Network Health status label in Monitoring window [PDR-916]

- Improve File handling when overlaying license file on template during offline editing [PDR-699]

- Improve the displayed labels around FM Deviation fields in Deployment General Configuration [PDR-706]

- Cosmetic improvement where we no longer generate errors or warnings against unused Deployment [PDR-872]

PDR8000® Issues Fixed:

- Toggle Gate Status Button in Monitoring Window disabled by mistake under some conditions [PDR-673]

- Correct the status string displayed for Synthesizer field in Monitoring window [PDR-818]

- Analog or Mixed-mode channel should not be allowed on V.24 Deployment Profile [PDR-857]

PDR8000® Field Names Updates: N/A

PDR8000® Known Issues:

- FRC may not allow editing of the "Personality Description" field in the "Personality Information" window. [PDR-888]
  Workaround: utilize keyboard <delete> key on this field first, then type the desired characters.

Futurecom Repeater Configurator (FRC)
Release Notes – May 2023

FRC Software (6A083X06):   New Version:**1.34**   Old Version: **1.32**

Note: FRC 1.34 software supports all hardware platforms: DVR-LX®, DVR, VRX1000, PDR8000®.

FRC 1.34 contains three main components to service all hardware programming needs.

10. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.34

11. Configurator for PDR8000®, ver. 1.34

12. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX repeater and PDR firmware versions**. It supports reading and writing to all previously configured devices.

FRC Notes for VR release 1.80

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home → Support → Documentation and Software

FRC New Features / Enhancements:

- FRC support to VR when factory calibration failure is detected [DVR-1783]

- More meaningful name for User Info window [DVR-1447]

FRC Issues Fixed:

- Permanent Primary text box doesn't update [DVR-2012]

- Cosmetic FRC issue when creating channels in DVR [DVR-2056]

- When loading an OLD. dcd template file, Date of Programming fields are all zeroes [DVR-2081]

- Modify pop up message when loading newer DCD to repeater with f/w on older map [DVR-2119]

- Applying License file may cause FRC to no longer function [DVR-1979]

FRC Field Names Updates: N/A

FRC Known Issues:

- ~~Transmission initiated from the Monitoring window may not work~~ [DVR-2251]

- When disabling the field **'VR Local Mode Allowed'** in the **'VR Common Setup'** menu, the configuration tool, FRC, shuts down unexpectedly [DVR-2359]

- The incorrect function call implementation was fixed in the '**RSSI Setup screen'**. The '**Local Mode Allowed'** and '**Operating Mode'** fields were enabled in '**RSSI setup screen'** [DVR-2380]

Workaround for the above issues (DVR-2359 & DVR-2380):

- Load data from repeater
- Open RSSI Setup window and ensure '**Operating Mode'** field is set to "OFF" or "SYSTEM"
- Close RSSI Setup window
- Load dcd/dpd file (overlays template onto current FRC displayed config) or change '**Local Mode Allowed'** field if not using a dcd/dpd file
- Save changes to repeater

FRC Notes for PDR8000® release 5.03

PDR8000® New Features / Enhancements:

- Update FRC with latest company Logo^{DVR-2023}

- Extend the FRC support to PDR when factory calibration failure is detected ^{PDR-809 and PDR-816}

- FRC to block navigation to online monitoring/logging windows during offline editing session ^{PDR-697}

PDR8000® Issues Fixed:

- FRC to add more fields to the DPD template ^{PDR-704}

- Update PDR Default Values in FRC ^{PDR-757}

- FRC to allow standard user access to Channel Number Spacing ^{PDR-805}

- FRC to restrict Rackmount Booster to specific channel/duplexer configurations ^{PDR-810}

- Update PDR Defaults for Reset Deployment ^{PDR-759}

- Clarify error message when creating channels in PDR ^{PDR-828}

- Certain Fields Marked with ¤ Symbol are Propagated Through Template File ^{PDR-860}

- Improve error handling when invalid input is entered to certain fields ^{PDR-679, PDR-680}

PDR8000® Field Names Updates: N/A

PDR8000® Known Issues:

- FRC may not allow editing of the "Personality Description" field in the "Personality Information" window. ^{PDR-888}
  Workaround: utilize keyboard <delete> key on this field first, then type the desired characters.

- Customer sees warning message for unused Deployments ^{PDR-872}

Futurecom Repeater Configurator (FRC)
Release Notes – December 2022

FRC Software (6A083X06):   New Version:**1.32**   Old Version: **1.31**

Note: FRC 1.32 software supports all hardware platforms: DVR-LX®, DVR, VRX1000, PDR8000®.

FRC 1.32 contains three main components to service all hardware programming needs

13. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.32

14. Configurator for PDR8000®, ver. 1.32

15. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX repeater and PDR firmware versions**. It supports reading and writing to all previously configured devices.

VR Release Notes

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home → Support → Documentation and Software

FRC New Features / Enhancements:

- Modify FRC menus to help understand DCD/DPD templates[DVR-1796]

- Added MSU RF Bypass Switch Extension field[DVR-1714]

- RSSI Setup: Change a few Threshold-related fields to read-only[DVR-1777]

- Socket fields from Menu Bar in FRC were removed[DVR-1881]

VR Issues Fixed:

- Added Missing Channel Offset/Deviation choice for NPSPAC[DVR-1665]

- NAC Linking should not be enabled on a Tier 2 VRX1000[DVR-1935]

- DCD files do not propagate fields in the upper section of the Frequency Band Configuration screen[DVR-1883]

FRC Field Names Updates

- Modify field labels in RSSI Setup window[DVR-1745]

FRC Known Issues: N/A

PDR8000® Release 5.02

PDR8000® Product Tested:

Repeater Module Firmware:	4C088X01 R5.02
Repeater Module Boot Firmware:	4C088X02 R5.00
Transceiver DSP:	4C083X03 R1.18
Baseband DSP:	4C083X04 R1.54
IF Module Firmware:	4C088X05 R5.02
IF Module Boot Firmware:	4C088X06 R5.02

PDR8000® New Features / Enhancements:

- File handling enhancements - Change labels on menu entries [PDR-698]

- FRC field labels improved to indicate Configuration fields that are not propagated through template files [PDR-700]

- Remove access to fields not propagated via template files when doing offline editing of template [PDR-701]

- FRC field labels improved to indicate Configuration fields affecting FRC application, stored locally [PDR-702]

- Provide warning if user overlays a template file onto a repeater with different feature licenses [PDR-703]

- Improve management of IP-based configuration fields (e.g., DFSI-related fields) [PDR-708]

- User can access the Display Unit field [PDR-731]

- Add necessary protection for FM Dev. Limit & PL FM Deviation when reading DPD files [PDR-655]

PDR8000® Issues Fixed:

- Added Missing Channel Offset/Deviation choice for NPSPAC [PDR-705]

- Fan control got disabled when older DPD template file was loaded in PDR as default user [PDR-583]

- File History was not being updated in FRC [PDR-781]

- Default values not being set for Frequency Set 3 [PDR-754]

- Clarified meaning of Backlight Timeout field for PDR display [PDR-773]

PDR8000® Known Issues: N/A

Futurecom Repeater Configurator (FRC)
Release Notes – August 2022

FRC Software (6A083X06):   New Version:**1.31**   Old Version: **1.30**

FRC 1.31 contains three main components to service all hardware programming needs

1. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.31
2. Configurator for PDR8000®, ver. 1.31
3. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX and PDR repeater firmware versions**. It supports reading and writing to all previously configured devices.

VR Release

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home → Support → Documentation and Software

VR New Features / Enhancements:
- DCD Improvements: DCDs, Offline Template Editing [DVR-1015]
- Update FRC pull down menu to reference Compatibility Chart [DVR-1437]
- Add FRC support for Power Limit in Rackmount DVR w Power Booster [DVR-1476]
- Added serial number restrictions to DCDs applied via FRC [DVR-1437]
- Changed Temperature Alarm Default to 70 in FRC [DVR-1794]
- Added warning when loading DCD created from different model repeater [DVR-1855]
- Changed default VR ID value to 0 (zero) [DVR-1579]
- Improve handling of template created from incompatible repeater[DVR-1857]

VR Issues Fixed:
- When configuration with Speed in km/h & Distance in m, FRC may reports error in EEPROM maintenance icon when saving the configuration [DVR-1443]
- Corrected Busy Lock. Thresh. min/default values in RSSI Setup window for 800MHz band DVR/DVR-LX [DVR-1679, DVR-1485]
- Analog steering violates channel restrictions and rules of precedence [DVR-401]
- Fixed truncation of text in the FRC Primary Secondary Setup window [DVR-1609]
- Removed unexpected values in DPD file for RF/Analog Setup screen [DVR-879]
- Applying wrong frequency band DCD file using FRC changes Hardware Part Number [DVR-1848]
- FRC does not prevent writing incorrect GPS driven deactivation configuration to DVR [DVR-1388]
- VR Ch. List and MSU TG Names not loaded properly when overwriting with DCD [DVR-1621]
- User Info screen licenses are being changed after applying a DCD with no bundled licenses via RM-OTAP [DVR-1614]

VR Field Names Updates

- "VRS-EP Compatible Mode Enabled" changed to "VRS-EP Compatible Mode" DVR-1872
- "Rep. Ch. Steering Enable" changed to "Rep. Ch. Steering" DVR-1872
- "Rep. Ch. Steering Revert Enable" changed to "Rep. Ch. Steering Revert" DVR-1872
- "Rep. Ch. UID Translation Enable" changed to "Rep. Ch. UID Translation" DVR-1872
- "Inband Calls Enable" changed to "Inband Calls" DVR-1872
- "Fallback in Analog Simplex Mode Enable" changed to "Fallback in Analog Simplex Mode" DVR-1872
- "Local to System Call Upgrade Enable" changed to "Local to System Call Upgrade" DVR-1872
- "VR Emergency Echo Ack Enable" changed to "VR Emergency Echo Ack" DVR-1872
- "TG1 Translation Enable" changed to "TG1 Translation" DVR-1872
- "Adaptive Power Control Enable" changed to "Adaptive Power Control" DVR-1872
- "Block TG Proxy" changed to "Enforce TG Matching" DVR-1377

VR Field Names Removed

- "MBX2 Compatibility" removed DVR-1377
- "ID" removed DVR-1377
- "Mstr Bit Clr Time" removed DVR-1377
- "Channel-0 Base Frequency" removed DVR-1817
- "Close Socket Connection" removed DVR-1881
- "Repair Socket Connection" removed DVR-1881
- "Rx Mobile Gain" removed DVR-1569
- "Mobile FM Deviation" removed DVR-1569
- "Mobile Microphone Gain" removed DVR-1569
- "Temp" removed DVR-1458
- "PA_t" removed DVR-1458

VR Known Issues/Limitations: N/A

PDR Release 5.01

Product Tested:

Repeater Module Firmware:	4C088X01 R5.01
Repeater Module Boot Firmware:	4C088X02 R5.00
Transceiver DSP:	4C083X03 R1.18
Baseband DSP:	4C083X04 R1.54
IF Module Firmware:	4C088X05 R5.00
IF Module Boot Firmware:	4C088X06 R5.00

Futurecom Repeater Configurator (FRC)
Release Notes – May 2022

FRC Software (6A083X06):   New Version:**1.30**   Old Version: **1.29**

FRC 1.30 contains three main components to service all hardware programming needs

1. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.30
2. Configurator for PDR8000®, ver. 1.30
3. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX repeater and PDR firmware versions**. It supports reading and writing to all previously configured devices.

VR Release

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home → Support → Documentation and Software

VR New Features / Enhancements:

- NAC Linking Compatibility option shown when detecting firmware version 1.73 or later.[DVR-1515]

- Eliminated incorrect warning message when loading DPD/DCDs created from a sibling DVR/DVR-LX, allowing user to move easily between DVR and DVR-LX units [DVR-1398]

VR Issues Fixed

- FRC now warns user of mismatched licensing options [DVR-1053, DVR-1298]

- PDR - Error shown when loading previously saved DPD file [PDR-686]

- Offline editing DCD file does not allow creation of new Repeater Channel (issue since FRC 1.27) [DVR-1372]

VR Field Names Updates

- FRC "Save DCD File" menu option changed from Attach to Bundle [DVR-1489]

- Removed "Use MSU Emergency ID" on FRC Emergency Setup Window [DVR-1460]

- "Morse Code" Sub-folder is called "Station ID Setup" in the window FRC [DVR-1389]

- AVRA, Primary/Secondary Preference input name replaces AVRA/Primary/Secondary Preference [DVR-1399]

VR Known Issues/Limitations: N/A

PDR8000® Release 5.00

Product Tested:

Repeater Module Firmware:	4C088X01 R5.00
Repeater Module Boot Firmware:	4C088X02 R5.00
Transceiver DSP:	4C083X03 R1.18
Baseband DSP:	4C083X04 R1.54
IF Module Firmware:	4C088X07 R5.00
IF Module Boot Firmware:	4C088X08 R5.00

Tested With:

PSU Type: APX7000
PSU Firmware: D15.71.55
Modems: Motorola UDS V.3225, Raymar-Telenetics V3600
GCM 8000 Comparator: CvCM_R07.17.005
Digital Conventional Gateway: DCG 9000
MLC AGU: R060027