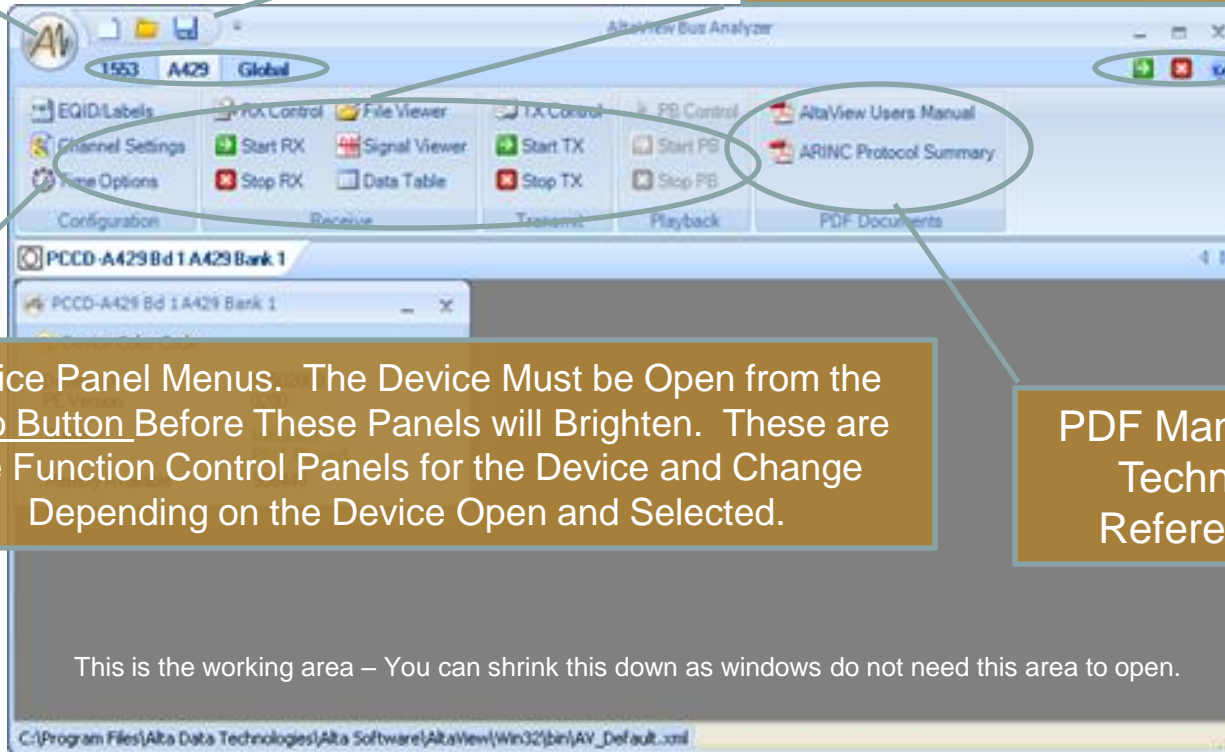# AltaView for ARINC-429 (A429)

- Basic Layout of Graphical User Interface (GUI)
- A429 Channel Device verses Global Device Controls
  - Global Controls
- A429 User Setup
- A429 Receive (RX) Controls
- A429 Transmit (TX) Controls
- A429 Playback

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# AltaView Application GUI Basics

**Logo Button.**
Master Control of Opening Devices and Setup Files

**Short Cuts.**
Right Click on Logo Button Selections to Add Your Short Cut Favorites

**Device Selection Tabs.**
Once a Device is Open from the Logo Button, Then You Can Select A Device To A429 or A429 (ARINC) Menus. The Menu's will Brighten if the Device is Open and Selected.

Master Run & Stop, and Version Help

Device Panel Menus. The Device Must be Open from the Logo Button Before These Panels will Brighten. These are the Function Control Panels for the Device and Change Depending on the Device Open and Selected.

PDF Manuals & Technical References

This is the working area – You can shrink this down as windows do not need this area to open.

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# Opening Devices from Logo Button



**Alta dt** data technologies

AltaView Bus Analyzer

1553  A429  Global

Top-Level, or <u>GLOBAL</u> Devices is for Card Level Functions – not ARINC Functions

Manual Device Settings. Not Usually Needed.

Select "Open Device"
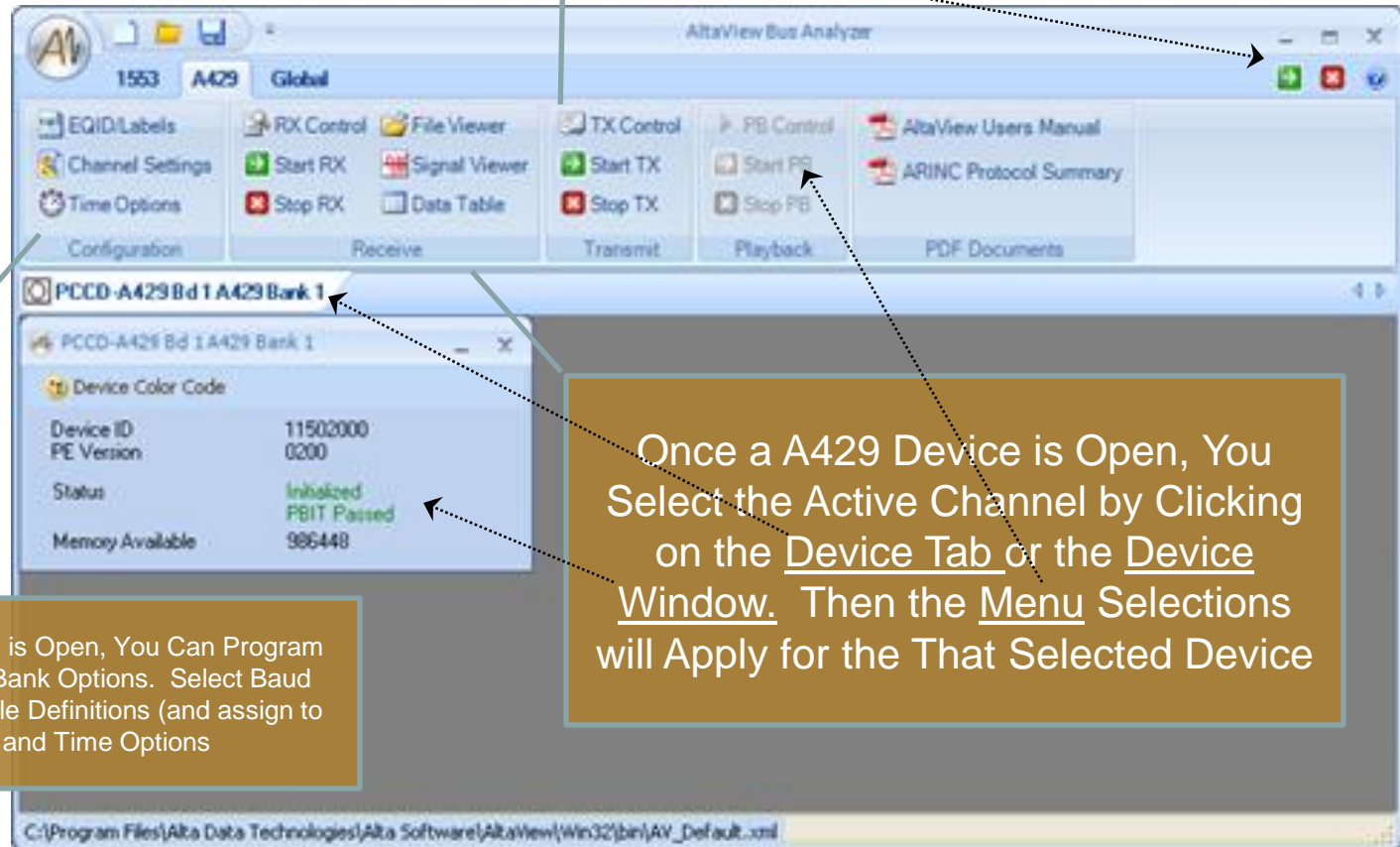
Channel Level Devices for 1553 or ARINC (A429) Devices.

**Open AltaDevice**

Local Devices
- PMC-1553 Board 1 SN 0000-00004 (FF RTV AV)
  - 1553 Channel 1
  - 1553 Channel 2
- PMC-MA4 Board 1 SN 0812-00217 (FF RTV AV)
  - 1553 Channel 1
  - 1553 Channel 2
  - 1553 Channel 3
  - 1553 Channel 4
  - 1553 Channel 5
  - A429 Device/Bank 1

Device Name: SIM-1553 Bd 1 1553 Ch 1

Device ID
- Board Type: SIM-1553
- Board Number: 1
- Channel Type: 1553
- Channel Number: 1

☐ Force Init if Device is in use

Network Options
- ⦿ Local    ○ Remote
- IP Address: 192.168.0.5
- TCP Port: 8000

Force Initialization (in case of previous crash) and IP Settings – Not Needed for Most Applications

Detecting Alta Devices . . .

OK    Cancel

**Select a Device, Then Click "OK"**

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# A429 Devices Opened



Each Function Panel Has Its' Own Start & Stop. The Master Start & Stop Controls All Functions.

Once a A429 Device is Open, You Select the Active Channel by Clicking on the Device Tab or the Device Window. Then the Menu Selections will Apply for the That Selected Device
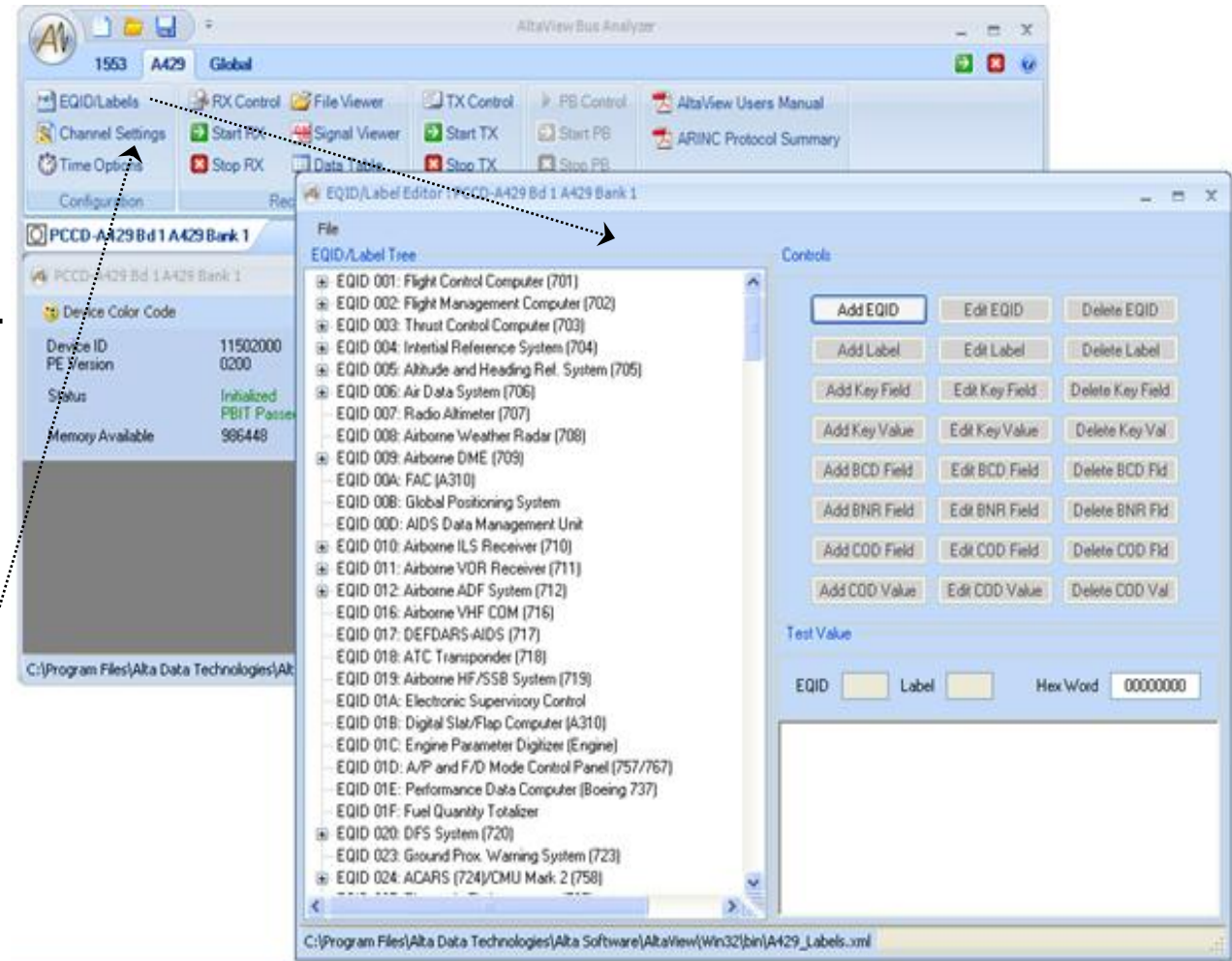
Once a A429 Device is Open, You Can Program the A429 Channel Bank Options. Select Baud Rates, Label XML File Definitions (and assign to channels), and Time Options

AltaView Provides the First XML Based Label Definitions!

Click on EQID and Select Your XML File.

Start with our Default XML File and Add or Change Your Own Label Definitions in ASCII, XML Schema or in GUI!

After Selecting File, Use Channel Settings to Assign EQID to a Channel.

# Example XML ASCII File

Easy to Read XML Tags Let You Define Almost any ARINC 429 Label Sets.



```
A429_Labels.xml - Notepad
File  Edit  Format  View  Help
<?xml version="1.0" encoding="utf-16"?>
<!--XML File for AltaView Settings-->
<AV_A429_EQID_LABEL_DEFN AV_Version="2.0.2.0">
  <EQID Index="001" Name="Flight Control Computer (701)">
    <LABEL Index="004" Name="Runway Distance to Go" MinTxInterval="100" MaxTxInterval="200">
      <FIELD Name="Runway Distance to Go" Units="Feet" StartBit="29" EndBit="19">
        <BCD Digits="3" MSD_Size="3" Digit_Size="4" MinVal="0" MaxVal="79900" />
      </FIELD>
    </LABEL>
  </EQID>
  <EQID Index="002" Name="Flight Management Computer (702)">
    <LABEL Index="001" Name="Distance to Go" MinTxInterval="100" MaxTxInterval="200">
      <FIELD Name="Distance to Go" Units="N.M." StartBit="29" EndBit="11">
        <BCD Digits="5" MSD_Size="3" Digit_Size="4" MinVal="0" MaxVal="3999.9" />
      </FIELD>
      <FIELD Name="SSM" Units="" StartBit="31" EndBit="30">
        <CODEFIELD>
          <CODE Value="0" String="+" />
          <CODE Value="1" String="No Computed Data" />
          <CODE Value="2" String="Functional Test" />
          <CODE Value="3" String="-" />
        </CODEFIELD>
      </FIELD>
    </LABEL>
    <LABEL Index="002" Name="Time to Go" MinTxInterval="100" MaxTxInterval="200">
      <FIELD Name="Time to Go" Units="Min" StartBit="29" EndBit="15">
        <BCD Digits="4" MSD_Size="3" Digit_Size="4" MinVal="0" MaxVal="399.9" />
      </FIELD>
    </LABEL>
    <LABEL Index="003" Name="Cross Track Distance" MinTxInterval="100" MaxTxInterval="200">
      <FIELD Name="Cross Track Distance" Units="N.M." StartBit="29" EndBit="15">
        <BCD Digits="4" MSD_Size="3" Digit_Size="4" MinVal="0" MaxVal="399.9" />
      </FIELD>
    </LABEL>
    <LABEL Index="010" Name="Present Position - Latitude" MinTxInterval="250" MaxTxInterval="500">
      <FIELD Name="Degrees" Units="Deg" StartBit="29" EndBit="21">
        <BCD Digits="3" MSD_Size="1" Digit_Size="4" MinVal="0" MaxVal="180" />
```

RX Control Panel with Auto Discovery, EU Real-Time Windows, Archive, Filter and Trigger Controls

Consistent, Easy to Use Presentation with Status Display on Left and Specific, Auto Detect Controls on the Right.



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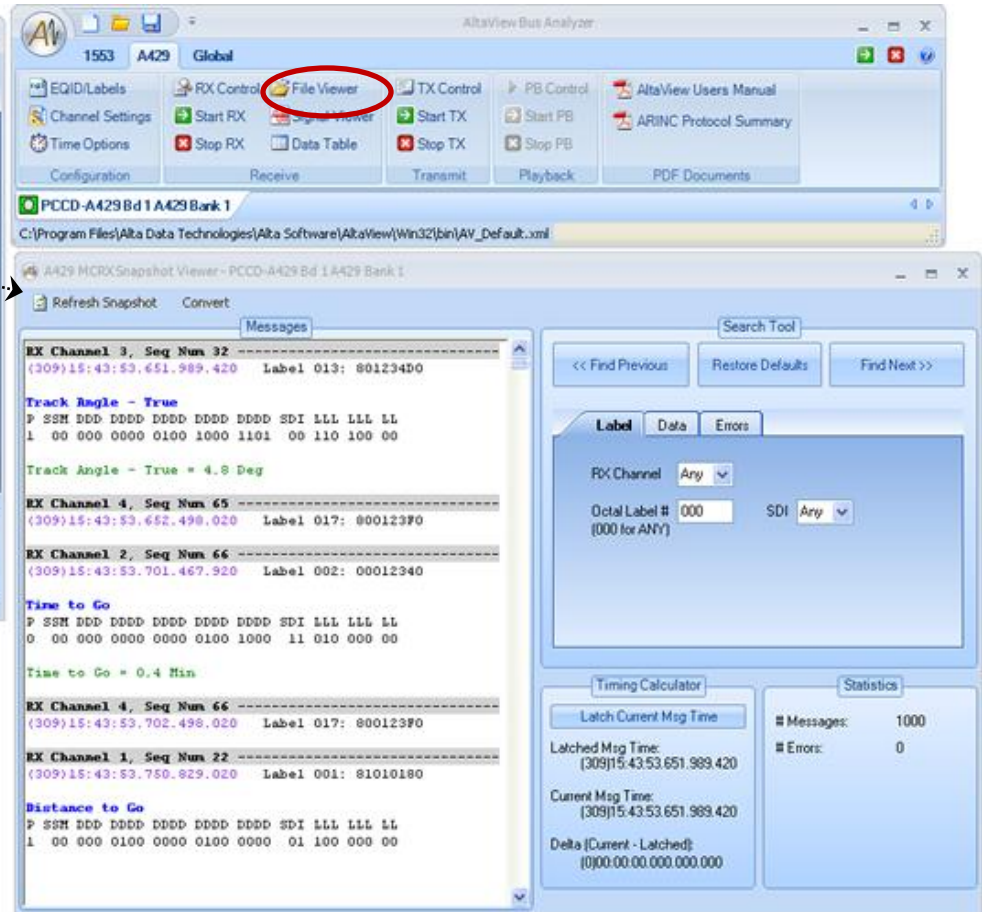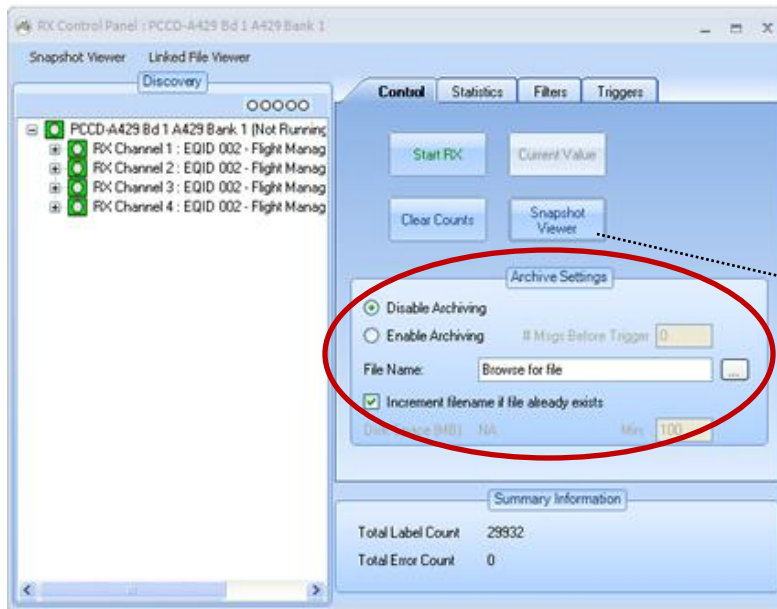**MIL-STD-1553 & ARINC-429**

# More Advanced RX Features

AltaView is the Only product To provide Advanced Data Tables, Label XML Real-Time Displays – AND Actual Signal Capture!

Virtually No Setup Required.

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AltaView RX Control Panel Provides Easy Setup for Archiving all Channels, Snapshot Buffer Views and Post Analysis File Viewing. Load AltaView on ALL Computers for Free Post Analysis Viewing!
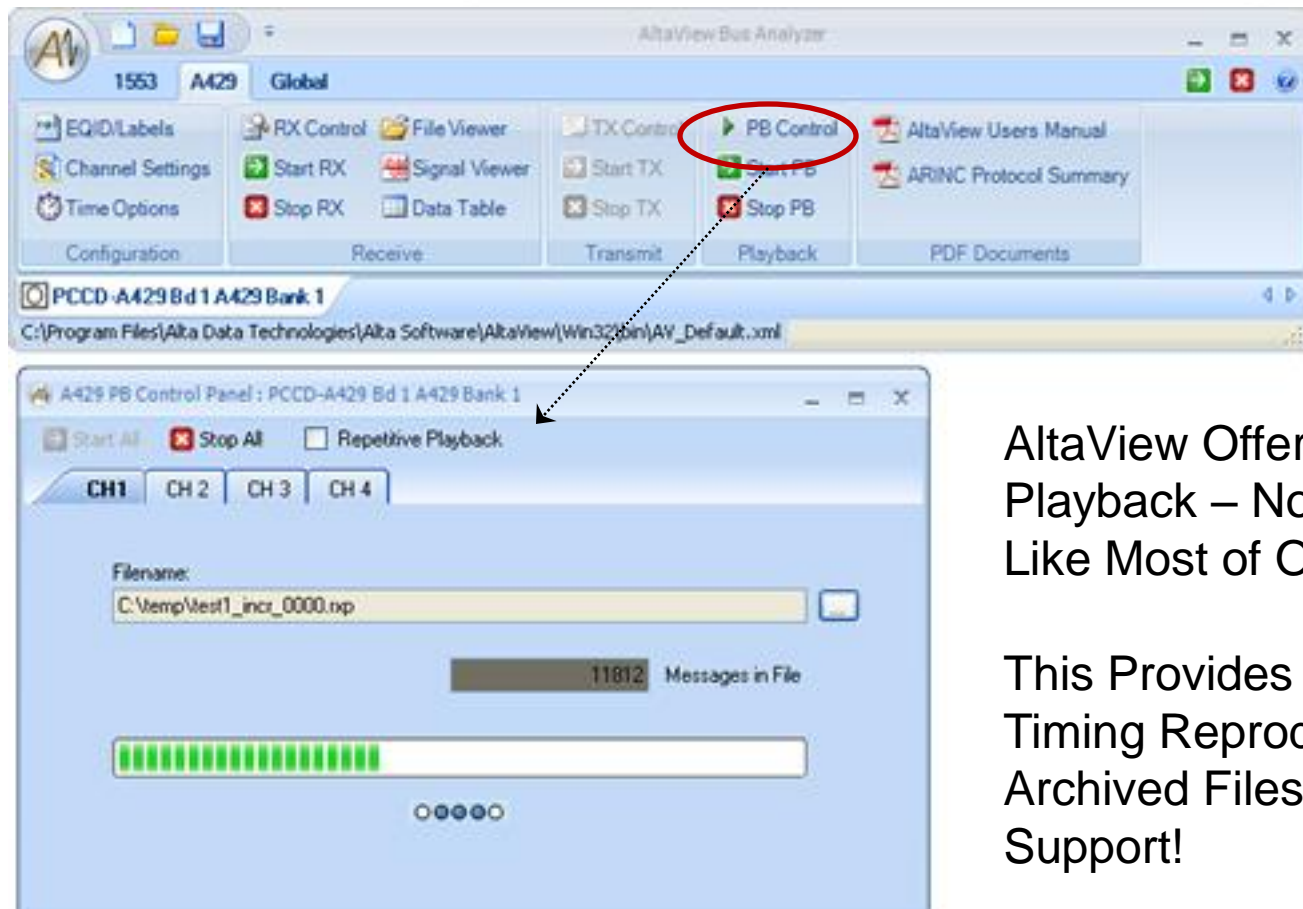
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TX Controls Can be Setup
With Label XML File.  Easy
To Use GUI – Consistant
Displays and Controls on Panels

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AltaView Offers True Hardware Playback – Not Software Timed Like Most of Our Competitors.

This Provides Very Accurate Timing Reproduction of Archived Files. Multi Channel Support!

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- Latest Generation Avionics Analyzer Using Full .NET and Ribbon Bar GUI Technologies

- XML & ARINC Label Setup and Schema – Easy to Edit and Import ICD Information

- Easy to Use GUI Control Panels – Consistent Displays without Windows Drill-up/Down

- Signal Capture and EU Data Conversion Built-In – Industry First!!

- Load AltaView on All Machines – Free Post Analyzer with File Viewer and EU Data Tables!

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