



Innovation, Quality and Service
MIL-STD-1553 & ARINC-429

AltaView for ARINC-429 (A429)



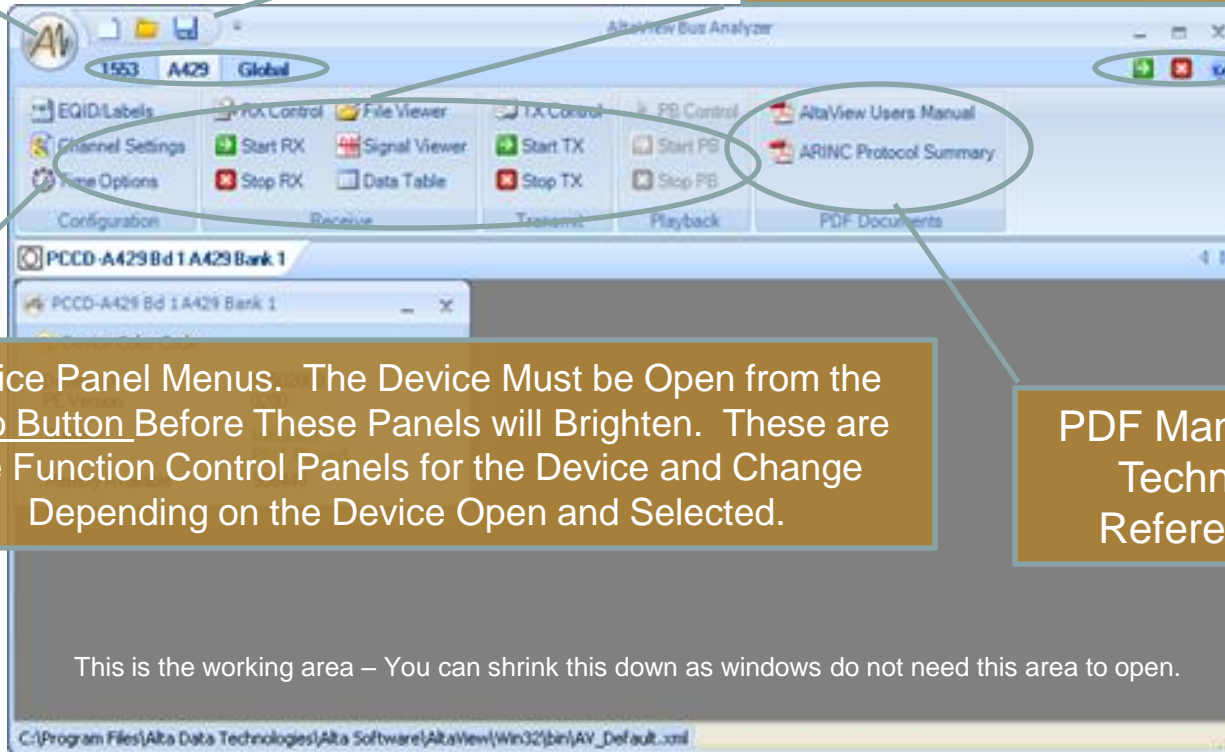
- Basic Layout of Graphical User Interface (GUI)
- A429 Channel Device verses Global Device Controls
 - Global Controls
- A429 User Setup
- A429 Receive (RX) Controls
- A429 Transmit (TX) Controls
- A429 Playback

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.

Opening Devices from Logo Button

The screenshot shows the 'Open AltaDevice' dialog box in the AltaView Bus Analyzer. The dialog is divided into two main sections: 'Local Devices' on the left and configuration options on the right. The 'Local Devices' list includes 'PMC-1553 Board 1 SN 0000-00004 (FF RTV AV)' and 'PMC MA4 Board 1 SN 0812-00217 (FF RTV AV)'. Under the first board, there are five '1553 Channel' entries and one '429 Device/Bank 1' entry. The '429 Device/Bank 1' entry is circled in red. The right section contains fields for 'Device Name' (SIM-1553 Bd 1 1553 Ch 1), 'Device ID' (Board Type: SIM-1553, Board Number: 1, Channel Type: 1553, Channel Number: 1), and 'Network Options' (Local selected, Remote unselected, IP Address: 192.168.0.5, TCP Port: 8088). A checkbox for 'Force Init if Device is in use' is present. The 'OK' and 'Cancel' buttons are at the bottom.

Top-Level, or GLOBAL Devices is for Card Level Functions – not ARINC Functions

Manual Device Settings. Not Usually Needed.

Select "Open Device"

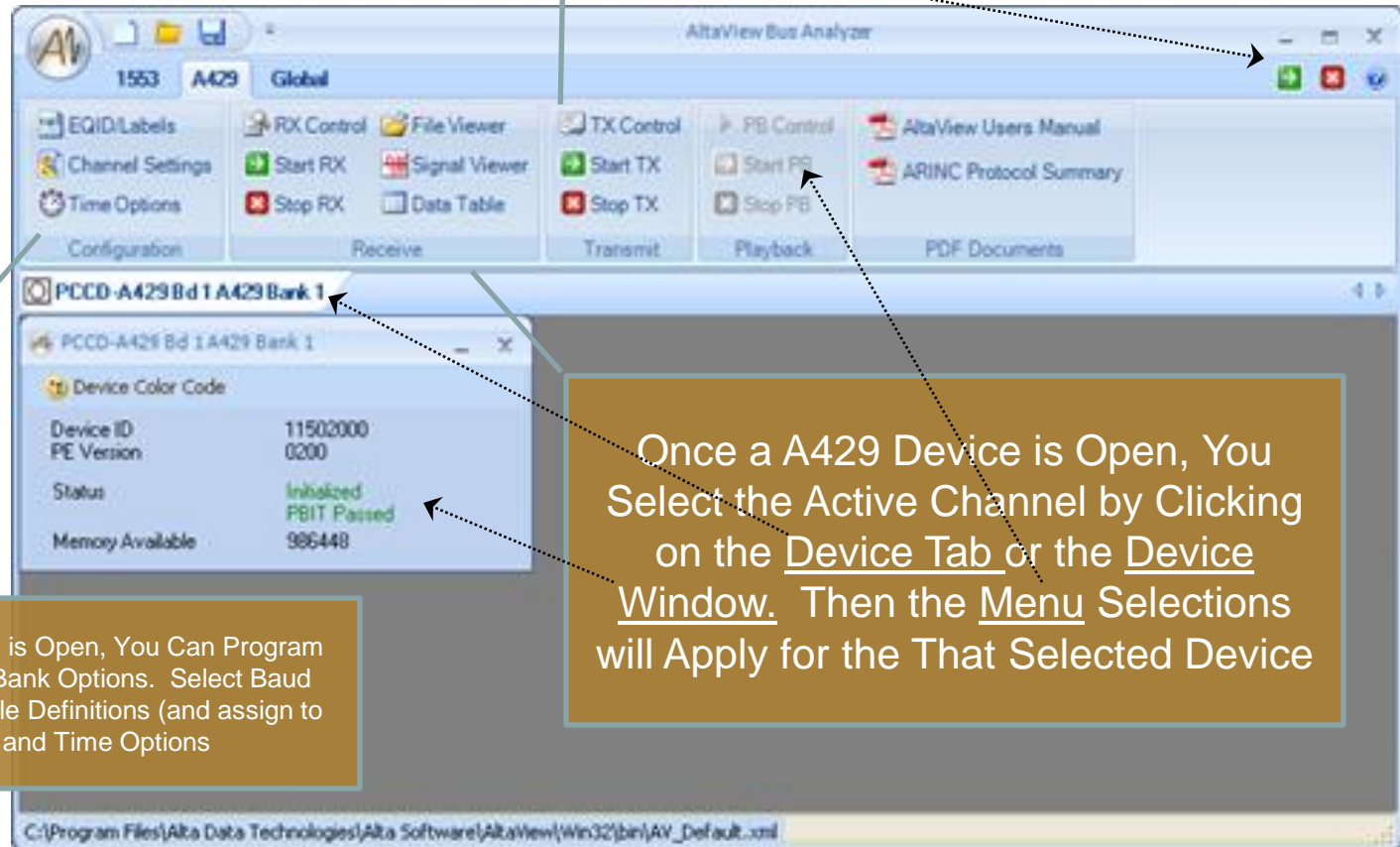
Channel Level Devices for 1553 or ARINC (A429) Devices.

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

Select a Device, Then Click "OK"

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 Can Program the A429 Channel Bank Options. Select Baud Rates, Label XML File Definitions (and assign to channels), and Time Options

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

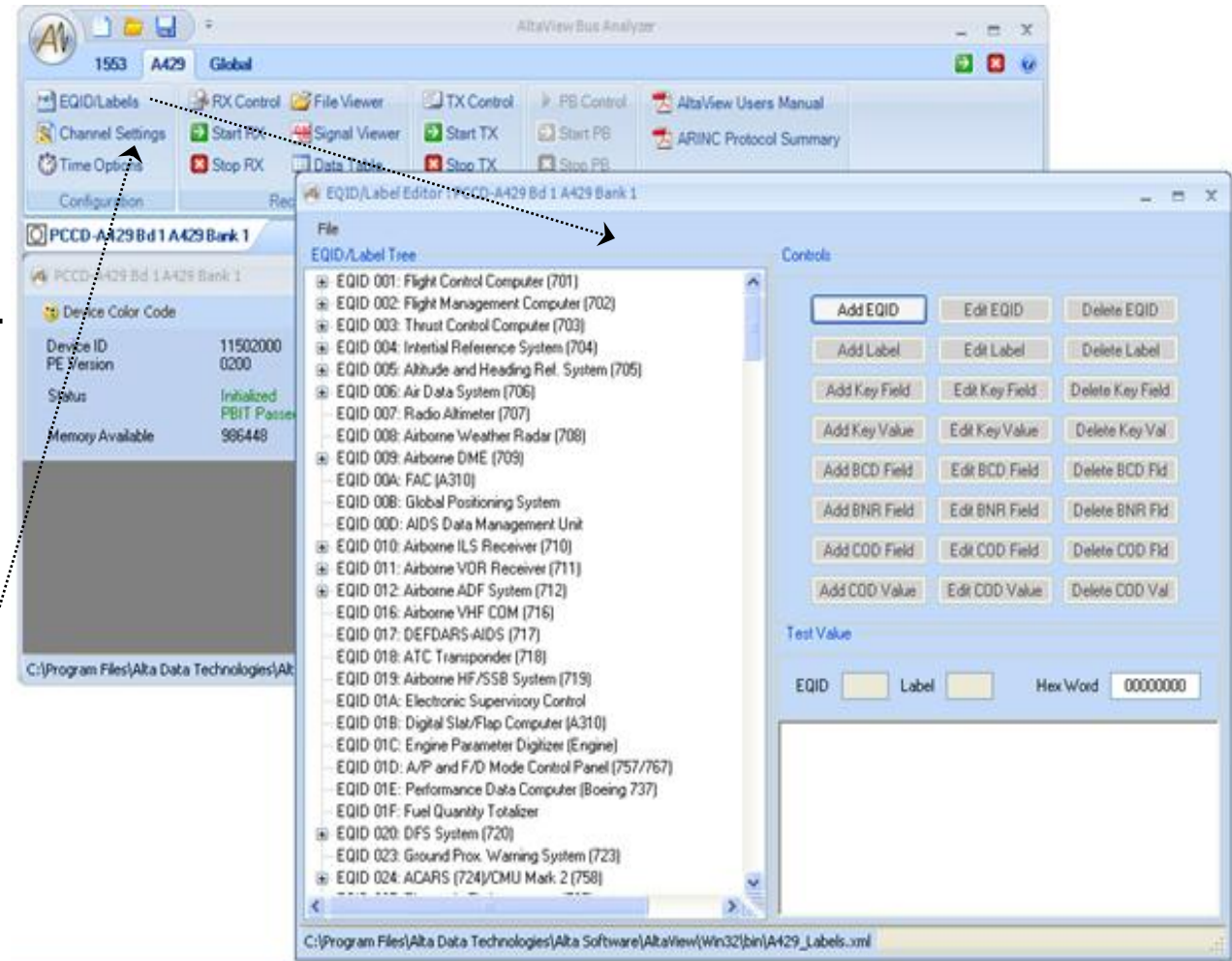
A429 Device Setup: Label XML Files

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.



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

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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" />
      </FIELD>
    </LABEL>
  </EQID>
</AV_A429_EQID_LABEL_DEFN>

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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.

The screenshot displays the AltaView Bus Analyzer software interface. At the top, there is a menu bar with options like 'EQID/Labels', 'RX Control', 'File Viewer', 'TX Control', 'PB Control', and 'AltaView Users Manual'. Below the menu bar is a toolbar with buttons for 'Start TX', 'Stop TX', 'Start PB', and 'Stop PB'. The main window is divided into several panes. On the left, there is a 'Discovery' pane showing a tree view of RX channels and labels. The central pane is the 'Control' pane, which includes buttons for 'Stop RX', 'Clear Counts', and 'Snapshot Viewer'. Below the control pane is the 'Archive Settings' pane, which has options for 'Disable Archiving' and 'Enable Archiving', a 'File Name' field, and a 'Disk Space (MB)' field. At the bottom of the control pane is the 'Summary Information' pane, which shows 'Total Label Count: 5782' and 'Total Error Count: 0'. On the right side of the interface, there are two 'Current Value' windows. The top window shows 'Current Value: RX Ch 1, Label 001: PCCD-A429 Bd 1 A429 Bank 1' and displays real-time data for RX Channel 1, including 'Period: 0.365 ms (Min: 0.365 ms Max: 299.635 ms)', 'Time: (309)15:37:04.851.194.020', and 'Label 001: 01020080'. The bottom window shows 'Current Value: RX Ch 3, Label 013: PCCD-A429 Bd 1 A429 Bank 1' and displays real-time data for RX Channel 3, including 'Period: 100.000 ms (Min: 100.000 ms Max: 100.000 ms)', 'Time: (309)15:37:04.951.989.420', and 'Label 013: 801234D0'.

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More Advanced RX Features

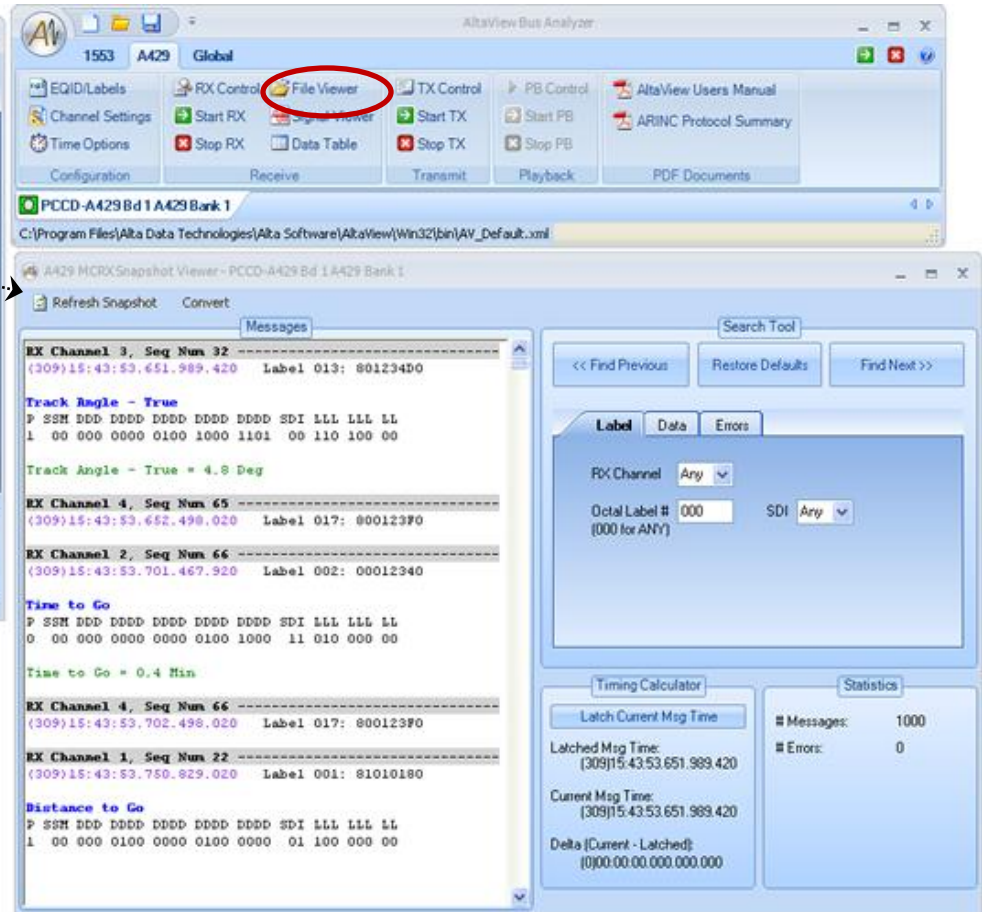
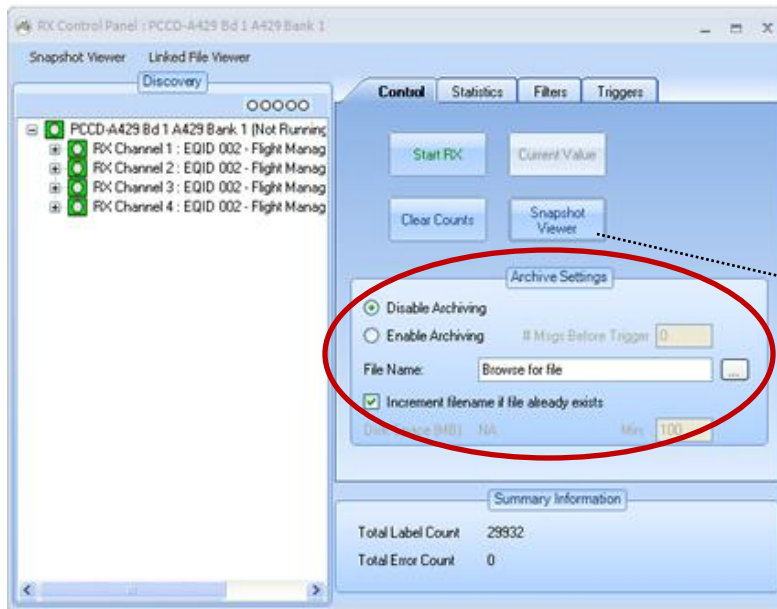
AltaView is the Only product To provide Advanced Data Tables, Label XML Real-Time Displays – AND Actual Signal Capture!

Virtually No Setup Required.

The screenshot displays the AltaView Bus Analyzer interface. The main window shows a toolbar with 'RX Control' and 'Signal Viewer' buttons. Below it, a 'Data Table' window is open, displaying a table of RX data. A 'Signal Viewer' window is also open, showing a waveform capture for RX Channel 1.

RX Channel	Label	Hex Word	Binary Word	Label Count	Error Count	Period
1	001	01020080	0 00 0 0001 0000 0000 0000 00 00 100 000 00	3522	0	0 ms
2	002	00012340	0 00 0 0000 0000 0001 0010 00 11 010 000 00	10564	0	50 ms
3	013	80123400	1 00 0 0000 0001 0010 0011 01 00 110 100 00	5282	0	100 ms
4	017	800123F0	1 00 0 0000 0000 0001 0010 00 11 111 100 00	10564	0	50 ms

The Signal Viewer window shows a waveform with a period of 0.365 ms (Min: 0.365 ms, Max: 299.635 ms). The current value is RX Ch 1, Label 001: PCCD-A429 Bd 1 A429 Bank 1. The time is (309)15:44:11.151.194.020. The label 001 is 01020080. The distance to go is 408 N.M. and the SSN is +.



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!

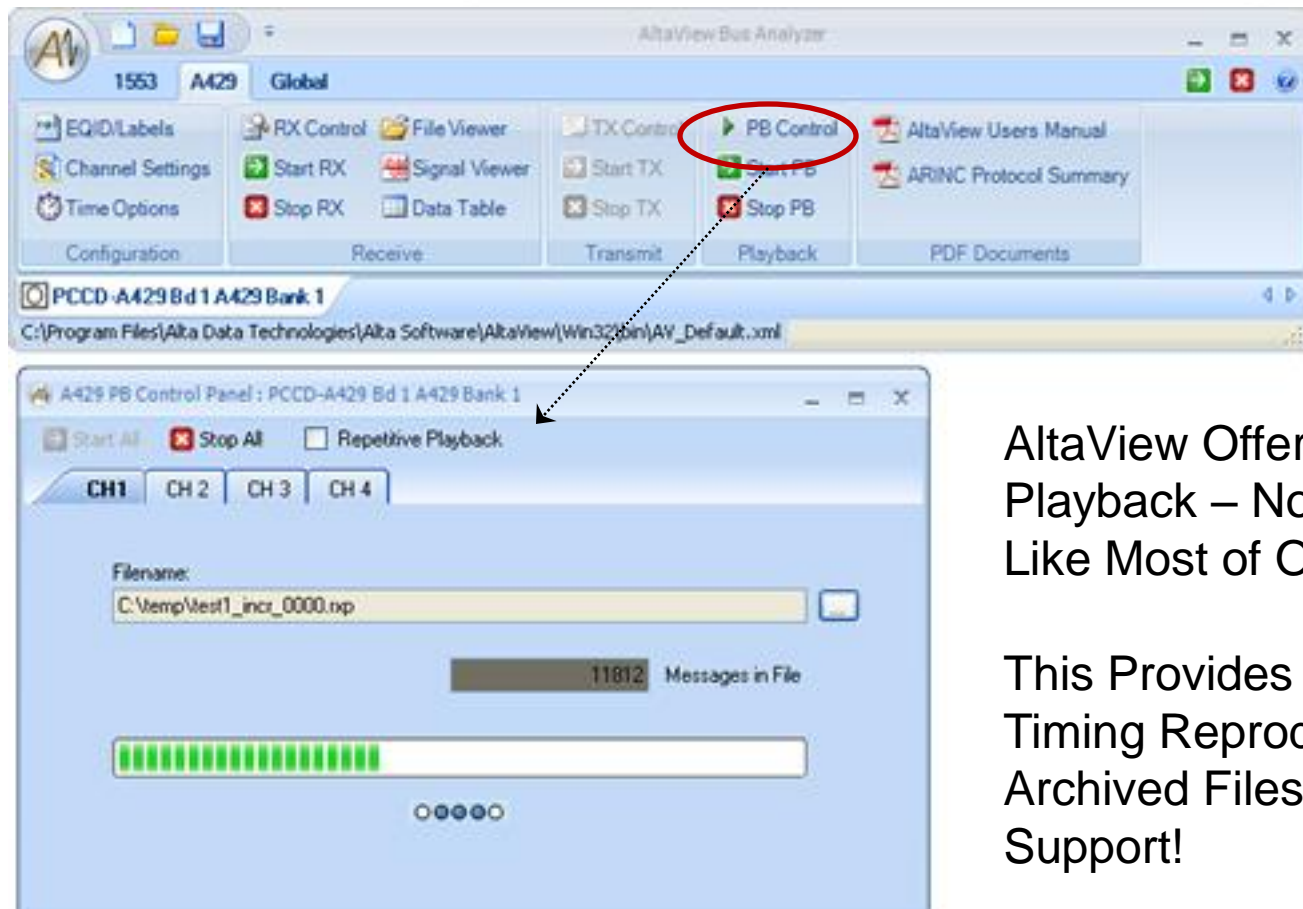
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The image displays the AltaView Bus Analyzer software interface. At the top, the main window shows a toolbar with buttons for 'EQID/Labels' and 'TX Control', both of which are circled in red. Below the toolbar, there are sections for 'Configuration', 'Receive', 'Transmit', and 'Playback'. The 'Transmit' section includes 'Start TX' and 'Stop TX' buttons. A secondary window titled 'Edit Label 000' is open, showing configuration options for a label, including 'Transmit Period (ms)' set to 100, 'Min Delay From Previous Label (us)' set to 40, and a dropdown menu for 'Label Defined by EQID' with '015 : Wind Speed' selected. A third window titled 'A429 TX Control Panel : PCCD-A429 Bd 1 A429 Bank 1' is open, showing a 'Transmit Table' with a tree view of TX channels and labels. The 'Basic TX' panel on the right contains controls for 'Top Level' (Start All, Stop All), 'TX Channel Level' (Add Label, Clear/Delete All Labels, Start TX), 'Label Level' (Edit Label, Delete Label), and 'Field Level' (Edit Field). Dotted arrows indicate the flow of information from the 'TX Control' button to the 'Transmit Table' and the 'Basic TX' panel.

TX Controls Can be Setup
With Label XML File. Easy
To Use GUI – Consistant
Displays and Controls on Panels

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Playback Control Panel



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!

- 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!