# MAXIMIZING RDS IN SMALL MARKETS

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## TODAY WE'LL TOUCH ON

- Radio Automation metadata formats
- RDS Encoders
  - Many options to fit the budget
- RDS middleware software
  - Why it's needed
  - My solution
- My development journey



## RADIO AUTOMAITON

- Various metadata formats
  - XML
  - IP, serial, file, etc
  - Simple output (Artist; Title)
  - Not enough information
  - Minimal customization available
  - No generic messaging



#### RDS ENCODERS

- Many available options
  - Basic (\$350) to advanced (\$3000)
  - Basic
    - DPS= & RT= (varies depending on encoder)
    - No customization
    - No scheduling
  - Advanced
    - DPS= & RT= (varies depending on encoder)
    - Some customization
    - Daypart scheduling



## EQUIPMENT LIST (2009)

- AudioVault Output (V8.42)
  - Artist, Tile, Cut ID, Duration, Category, Etc...
- Audemat FMB-10
  - Simple Encoder
  - No Scheduling
  - Last Song Displays During Commercial Break



## THE "REAL" ISSUE

- Owner wasn't happy
- Program Director wasn't happy
- RDS middleware needed
  - Budget Provided





## THE PROJECT BEGINS

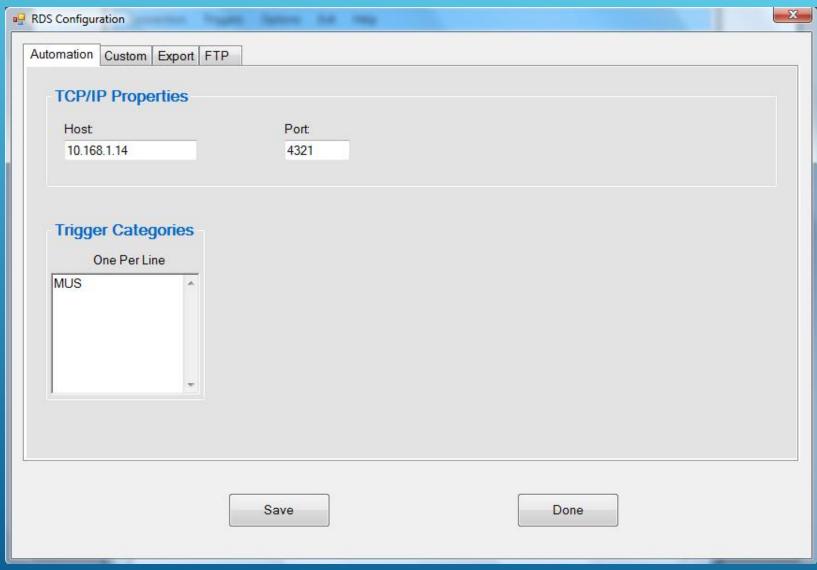
December 2008

- Initial Goals
  - Receive metadata from Automation
  - Provide enhanced station branding
  - Message scheduling
  - Send text file with Artist/Title to the website
  - Send to Audemat FMB-10 via Serial Port



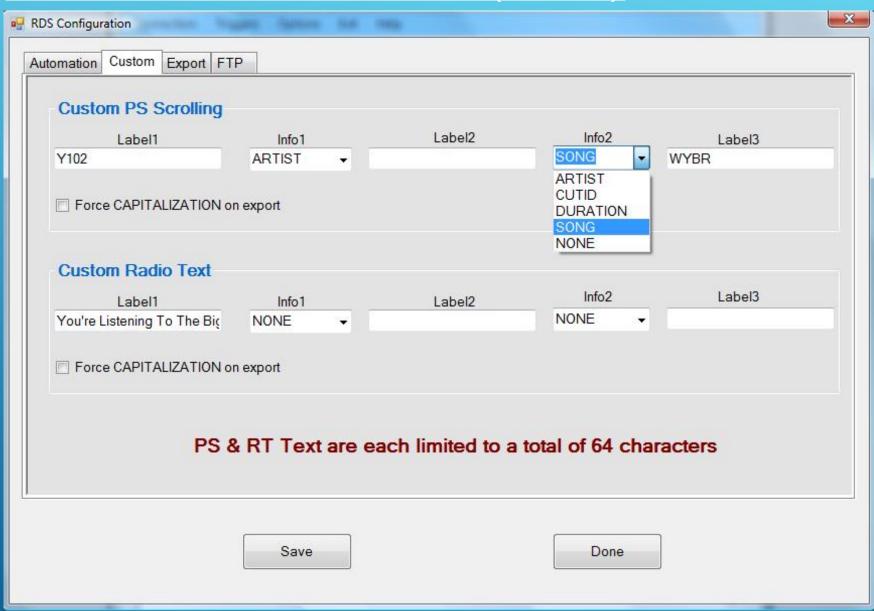
## **AUTOMATION INTERFACE (2009)**

Only accepts AudioVault Output



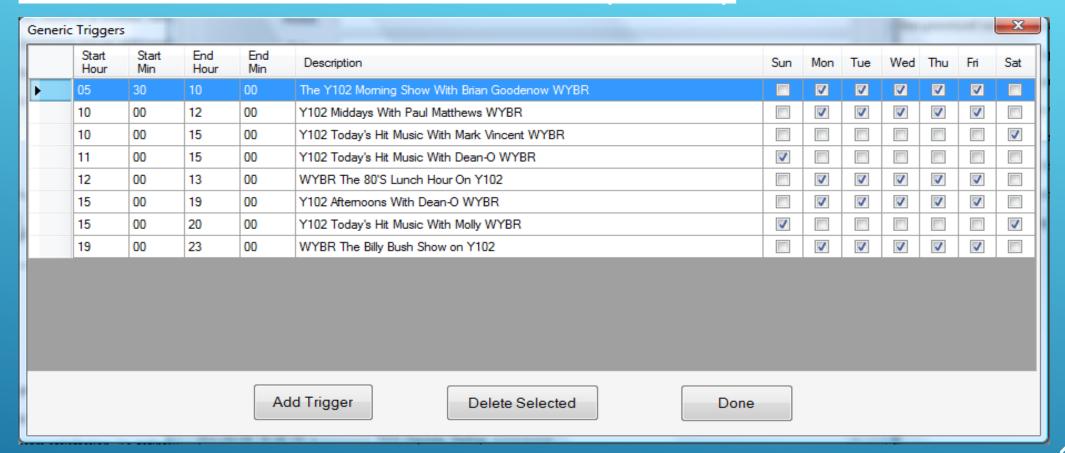


## STATION BRANDING (2009)



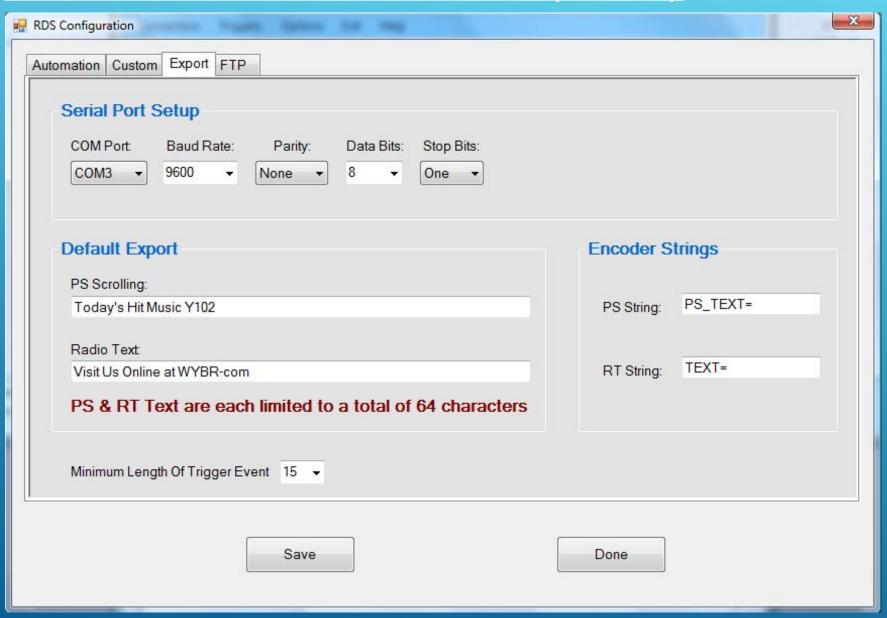


## MESSAGE SCHEDULING (2009)



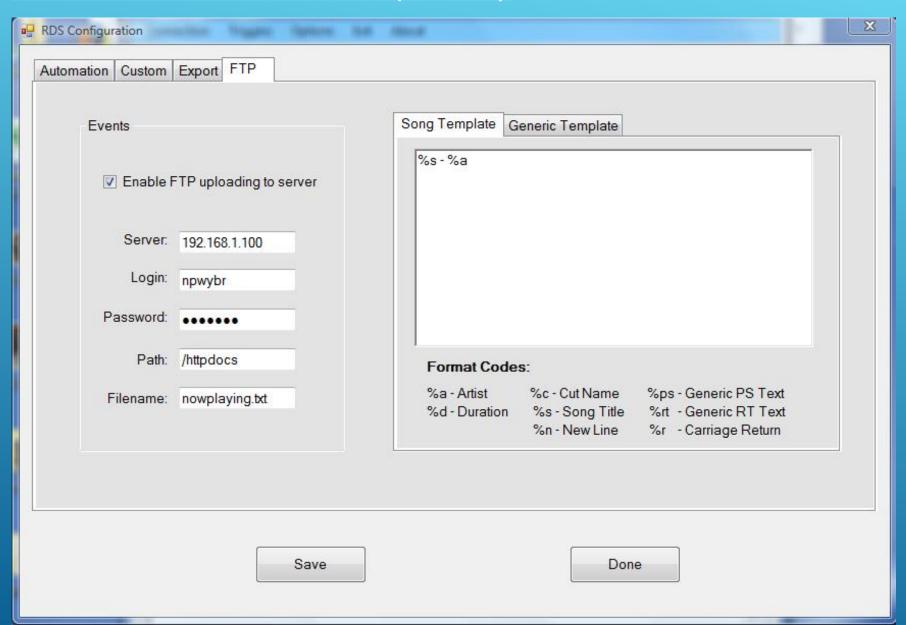


## **EXPORT TO ENCODER (2009)**



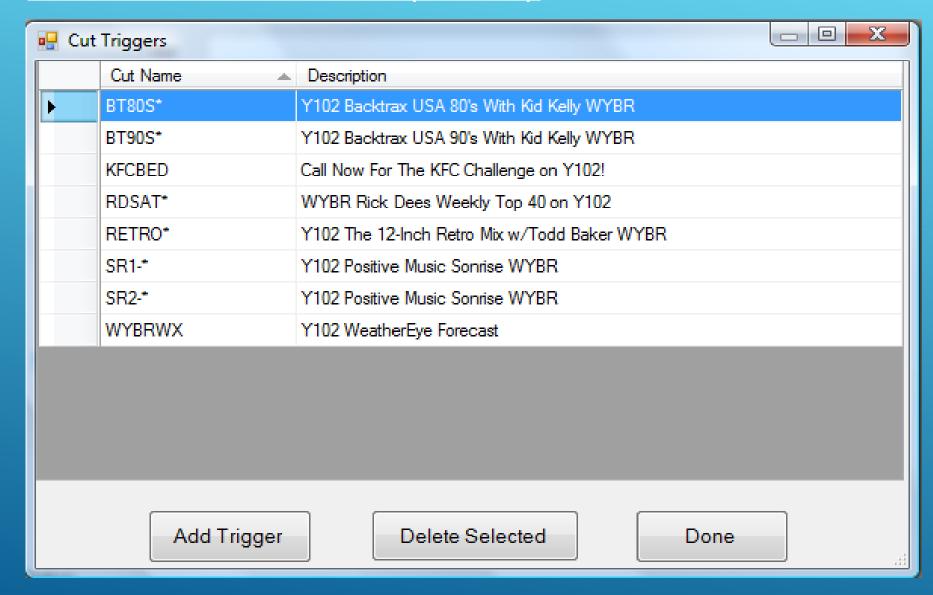


#### FTP TO WEB SITE (2009)



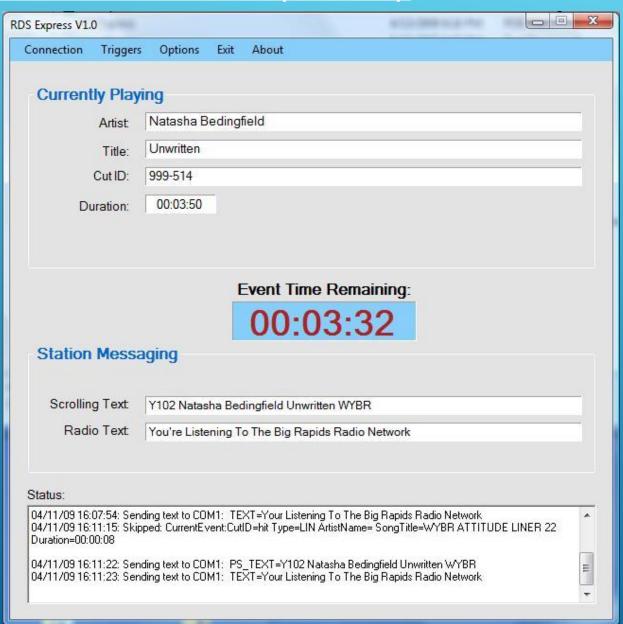


## CUT TRIGGERS (2009)





## **USER INTERFACE (2009)**





# GOALS ACCOMPLISHED

PROJECT OVER?

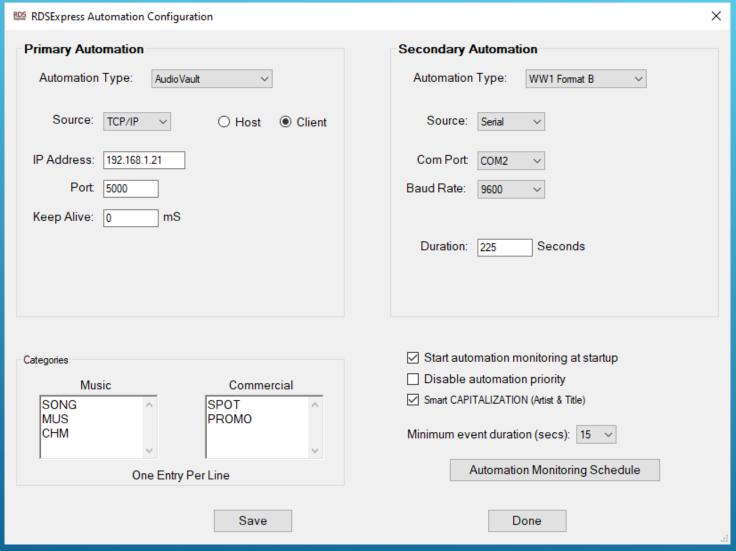


#### ENHANCING THE LISTENERS EXPERIENCE

- Allow more input sources such as satellite receivers to provide metadata for syndicated programming
- Allow more output destinations (Send to multiple sites, streaming, etc)
- Custom messaging for Radio Text (Independent of PS Text)
- Ability to clean up poorly formatted metadata
- Display the weather forecast
- High School sports scores?
- Allow morning show producer direct control of RDS?
- Can RDS become another revenue source?

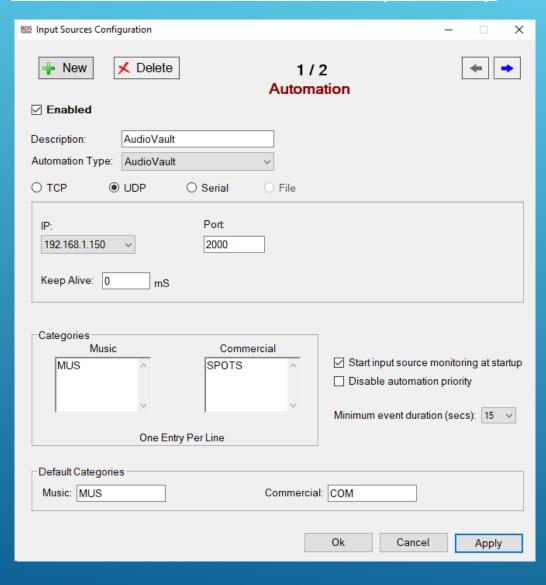


## **INPUT SOURCES**





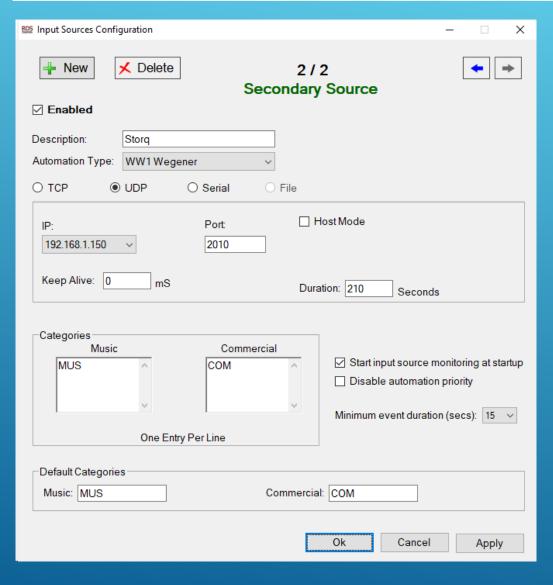
## INPUT SOURCES (2023)



## Up to 5 Input Sources

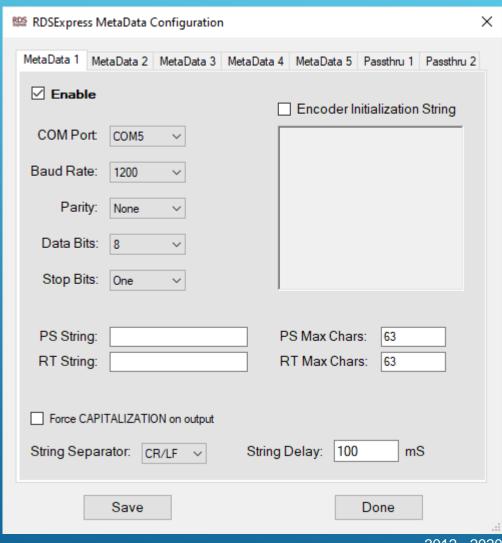


## SECONDARY INPUT SOURCES (2023)





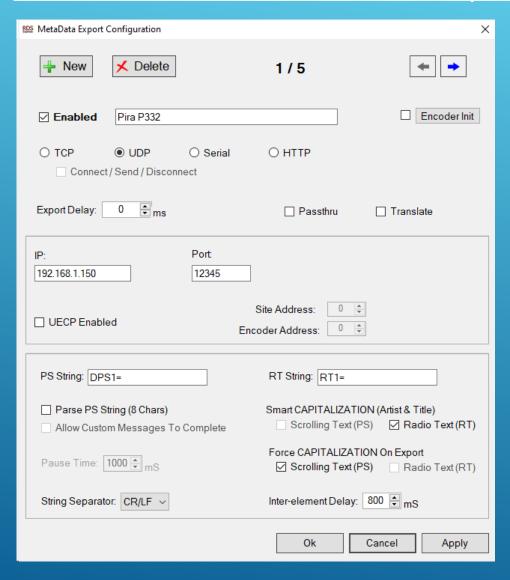
#### METADATA EXPORTS



Up to 10 Metadata Exports



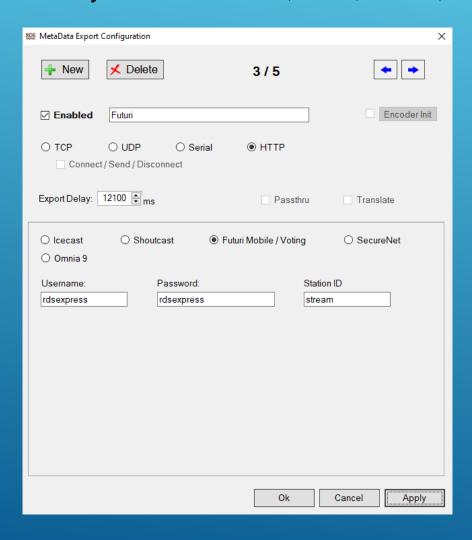
## METADATA EXPORTS (2023)





## METADATA EXPORTS (2023)

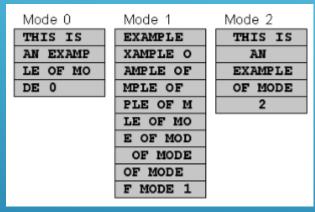
Very Flexible... TCP, UDP, Serial, HTTP & Export Delay





#### MESSAGE PARSING

#### Select the best parsing method



Page 16 of Pira P232U Manual

Poor Parsing = Bad Presentation!

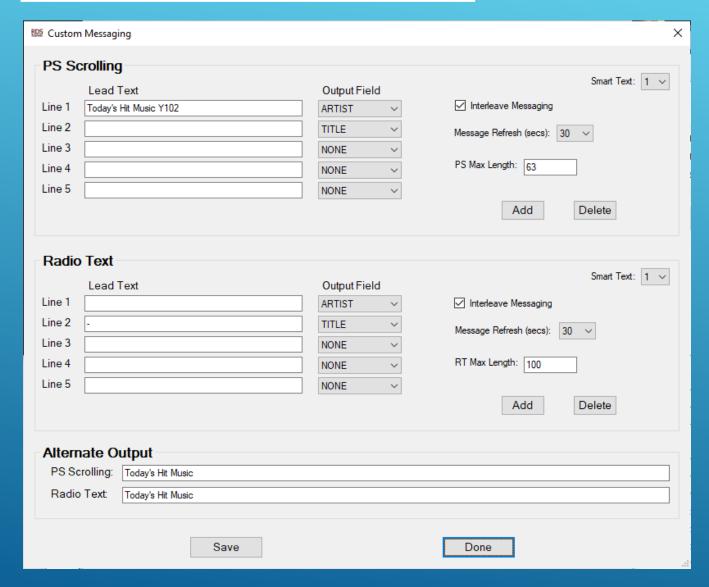
"Big Country 100.9 Lainey Wilson Watermelon Moonshine"



**RDSExpress 8 Character Parsing** 

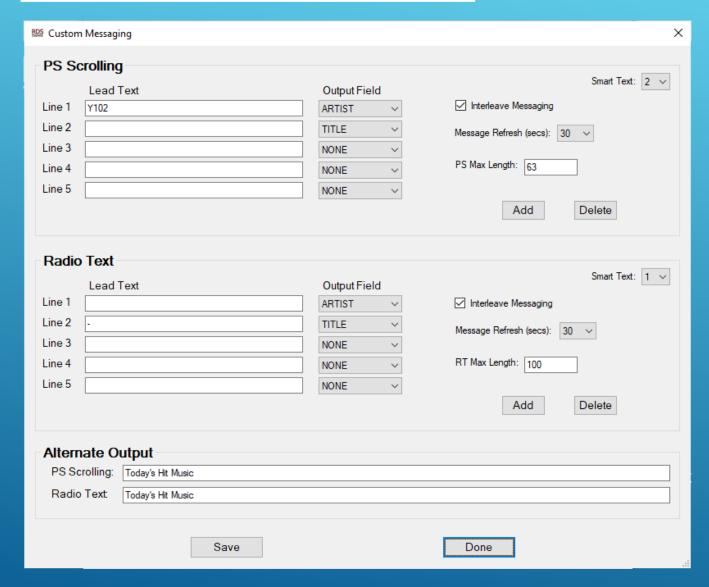


## **CUSTOM MESSAGING**



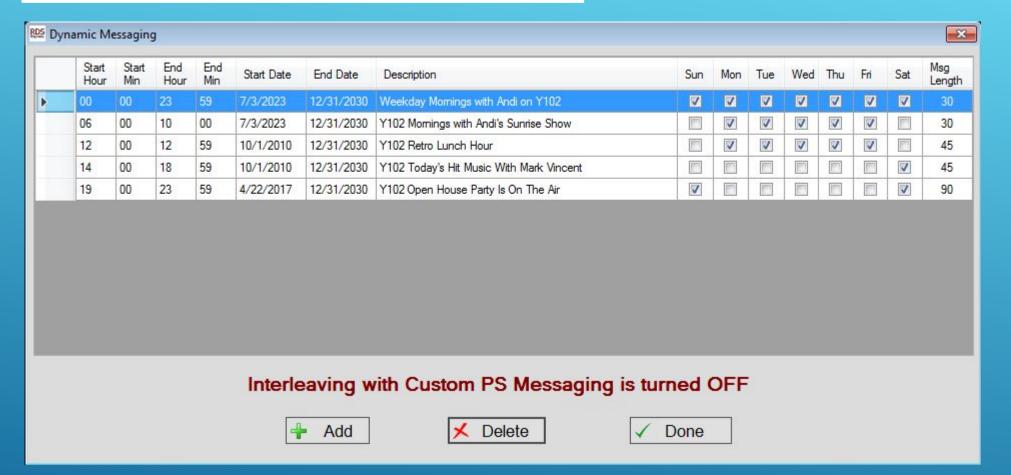


## **CUSTOM MESSAGING**



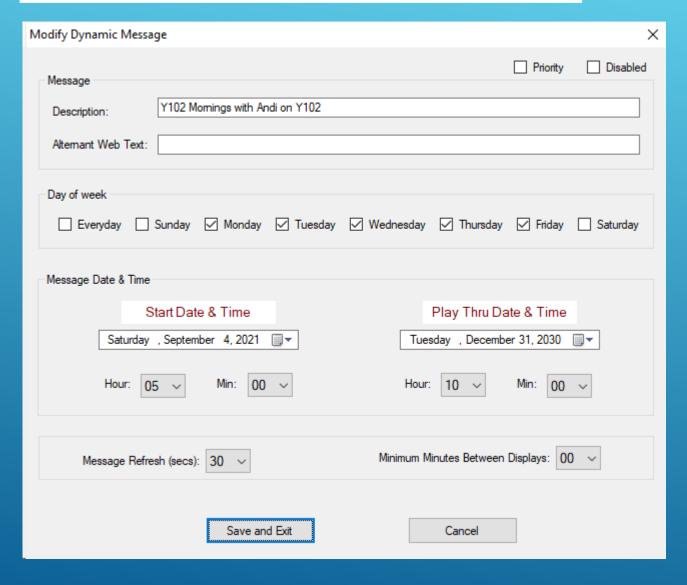


#### **CUSTOM SCROLLING TEXT**



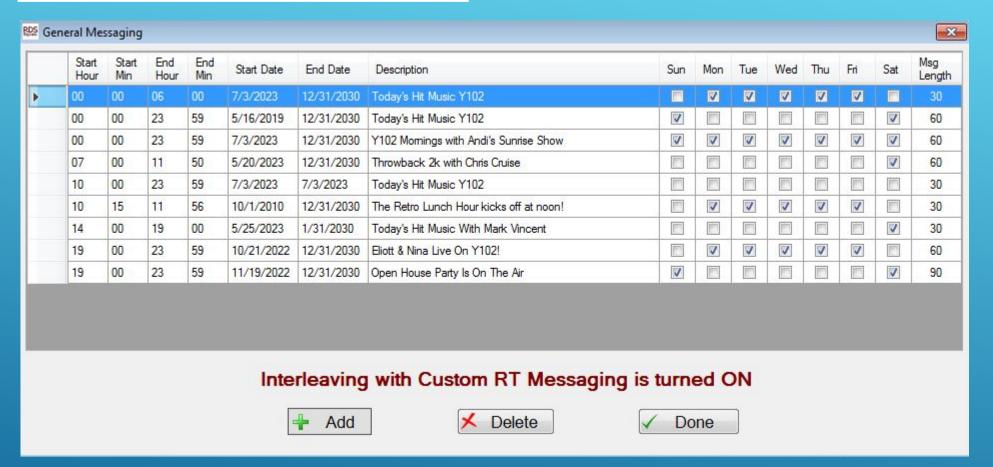


#### **CUSTOM SCROLLING TEXT**





#### **CUSTOM RADIO TEXT**



Turn off Radio Text Padding if the RDS Encoder has the option!



#### RADIO TEXT WITH PAD



Display format varies between vehicles



#### RADIO TEXT WITHOUT PAD



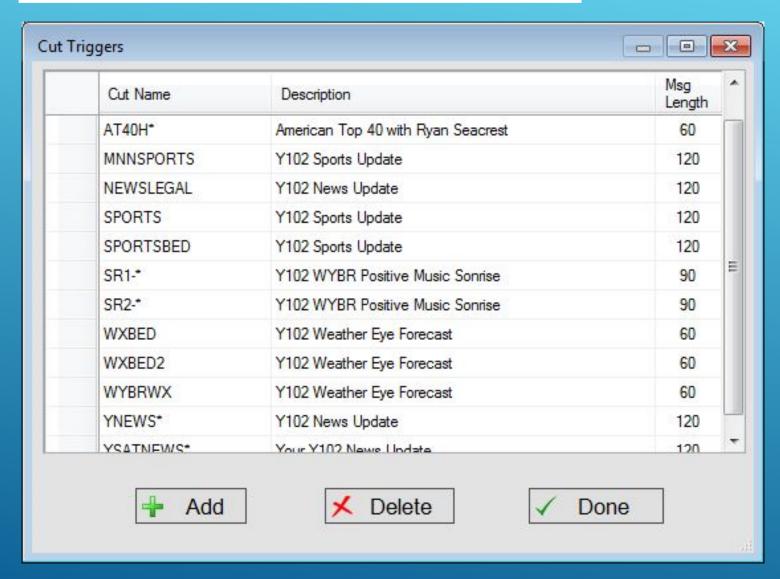


## MY RDS MESSAGING RULES

- Scrolling text has only 8 characters. Keep messaging simple
- Capitalize all scrolling text messages (Cleaner look for scrolling text)
- Use Radio Text for more detailed messaging
- Let Artist/Title of song dominate messaging



#### **CUT TRIGGER MESSAGING**





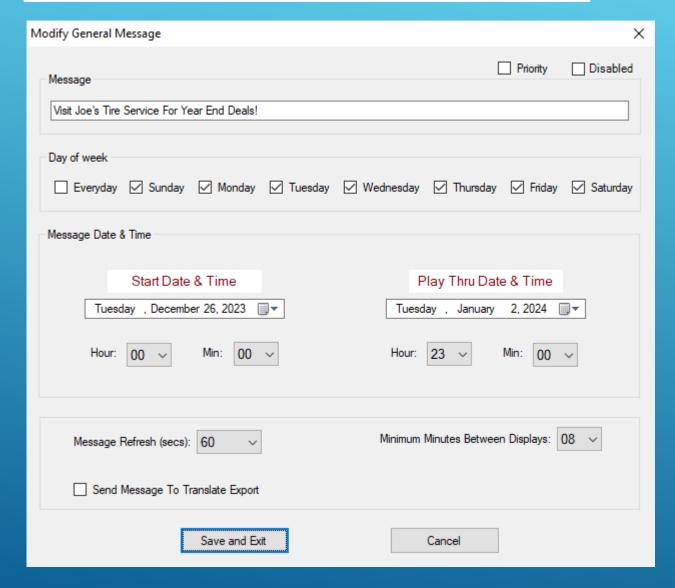




# REVENUE OPPORTUNITIES?



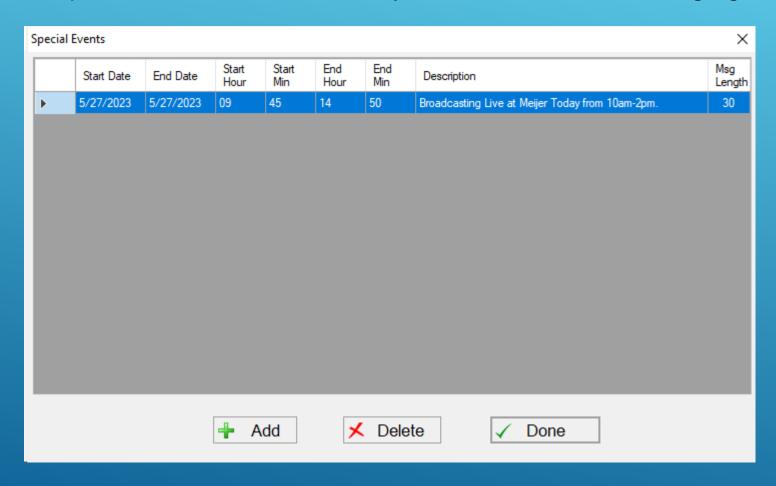
#### REVENUE OPPORTUNITIES





#### REVENUE OPPORTUNITIES

Special Events override all Dynamic & General messaging



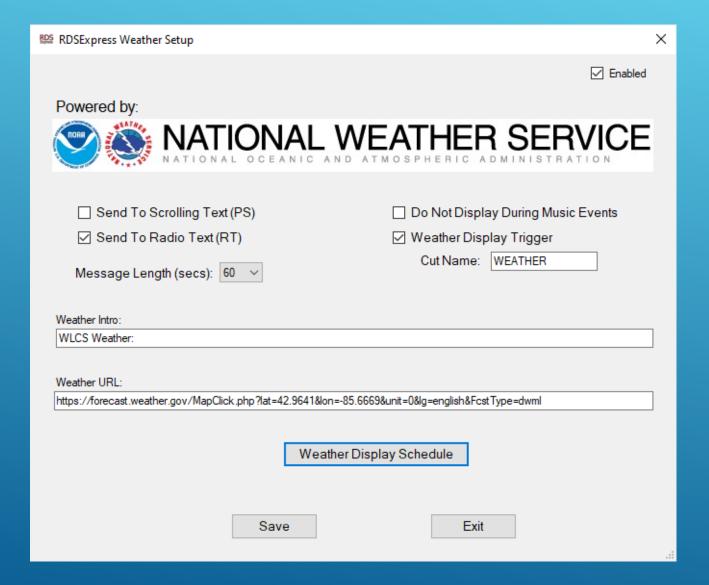


# WEATHER FORECAST DISPLAY

- Original design used Weather Underground with limited API Calls (API shutdown when purchased by IBM)
- Weather.gov
  - Regularly updated
  - Provides high & low temps
  - Provides weather conditions
  - Free!



#### WEATHER DISPLAY





## WEATHER FORECAST DISPLAY

- Checks for Best Formatting
  - Weather Intro, Weather Conditions/Temp for Today & Tonight
    - "WLCS Weather: Today Sunny High 73. Tonight Cloudy Low 60"
  - Weather Intro, Weather Conditions/Temp for Today, Tonight Temp
    - "WLCS Weather: Today Mostly Sunny High 73. Tonight Low 60"
  - Weather Conditions/Temp for Today & Tonight
    - "Today Mostly Sunny High 73. Tonight Cloudy Low 60"
  - Weather Conditions/Temp for Today & Temp for Tonight
    - "This Afternoon Mostly Sunny High 74. Tonight Low 60"



## WEATHER FORECAST DISPLAY

- Checks for Best Formatting
  - Weather Conditions/Temp for Today
    - "Today Severe Thunderstorms Expected High 73"
  - Last Option!
    - Weather Conditions/Temp For Today Truncated



#### WEATHER DISPLAY



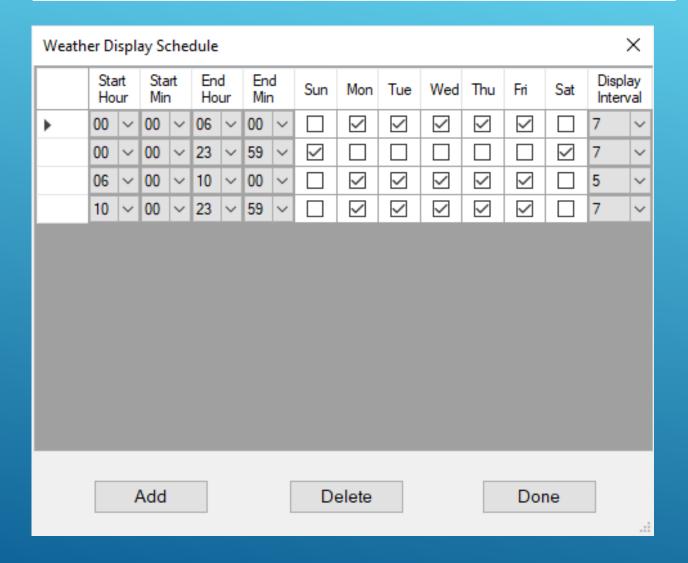


## WEATHER DISPLAY





## WEATHER DISPLAY SCHEDULE





# ENHANCING THE LISTENER EXPERIENCE MORE!

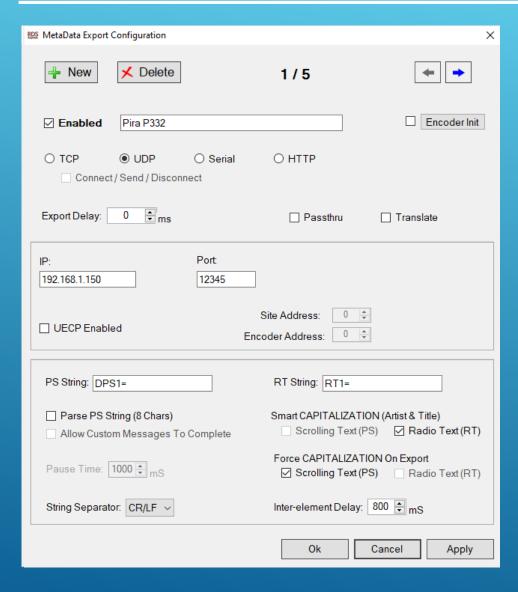


#### FIXING THE FORMAT SENT FROM THE AUTOMATION





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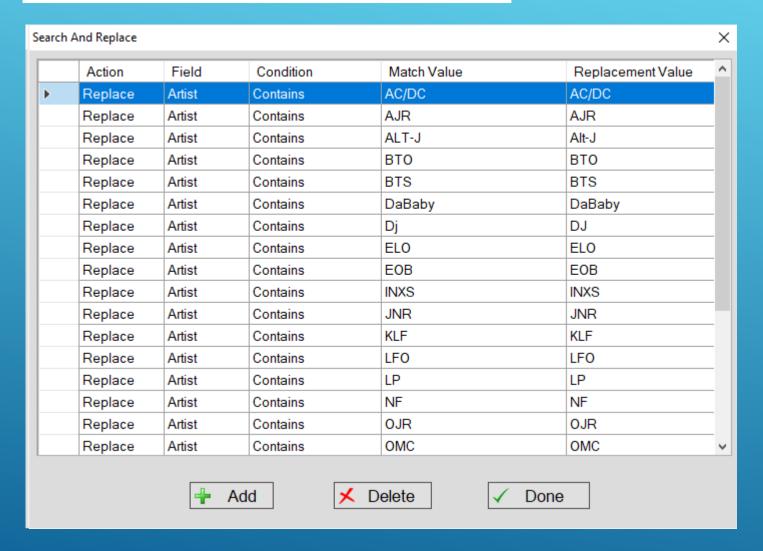
- Force Capitalization
  - "98.7 FGR: STEVIE NICKS EDGE OF SEVENTEEN"

- Smart Capitalization
  - "98.7 FGR: Stevie Nicks Edge Of Seventeen"

- Smart Capitalization Isn't Perfect!
  - "Ac/dc You Shook Me All Night Long"
  - "Inxs Need You Tonight"

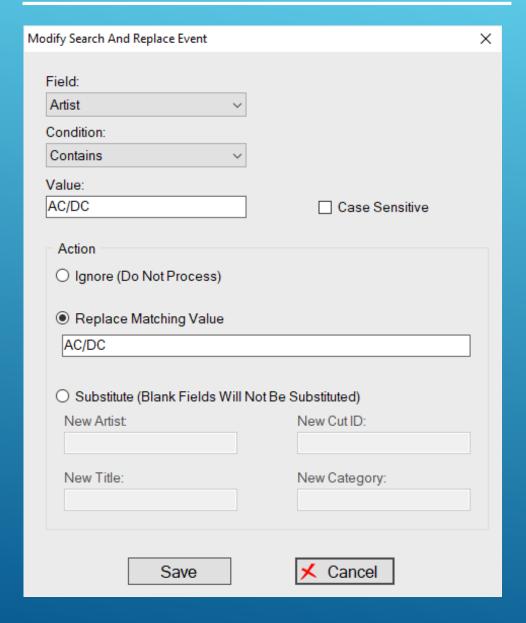


#### SEARCH AND REPLACE





# SEARCH AND REPLACE





## FIXING THE FORMAT SENT FROM AUTOMATION

- Smart Capitalization (After Search And Replace)
  - "AC/DC You Shook Me All Night Long"
  - "INXS Need You Tonight"

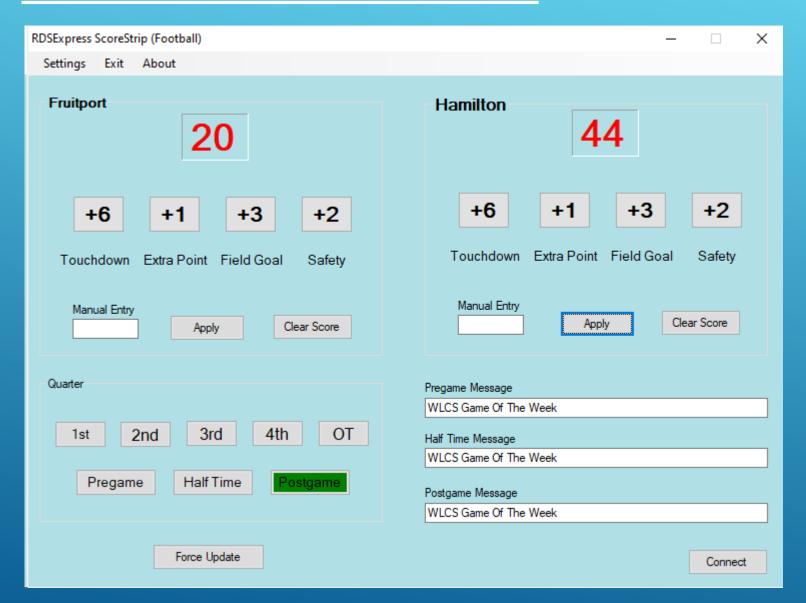
With a little work the RDS has a much cleaner look!



## SMALL MARKETS ARE JUST DIFFERENT

- Smaller markets typically carry more local high school sports
- Is there another possible revenue source?















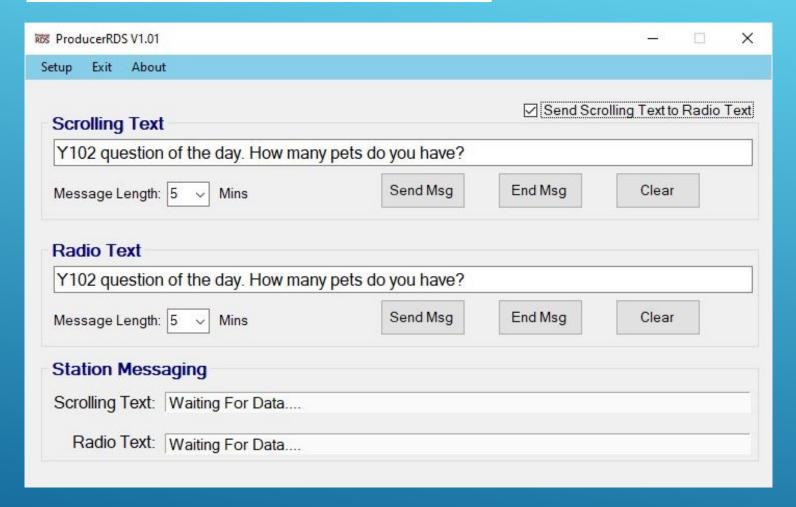






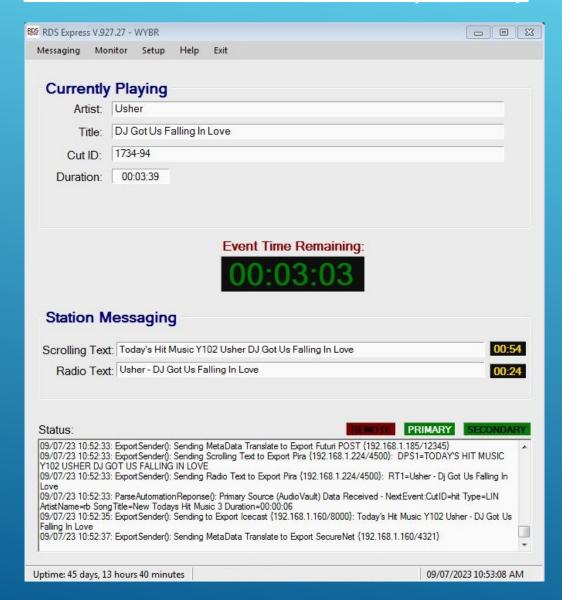


#### PRODUCER CONTROL





#### **USER INTERFACE (2023)**





## MY RDS MESSAGING RULES (REVIEW)

- Scrolling Text has only 8 characters. Keep messaging simple
- Choose best parsing for scrolling text (In encoder or external)
- Capitalize all scrolling text messages
- Use Radio Text for more detailed messaging
- Let Artist/Title of song dominate messaging
- Turn off Radio Text padding (If supported)
- Properly space messages out (Time between displays)
- Properly format metadata
- Consider RDS as another revenue stream
- Middleware can allow the use of inexpensive encoders.



## MARKETS USED FOR TESTING

- WYBR / WWBR Big Rapids, MI (Between #68 & #157)
- WLCS / WVIB / WLAW Muskegon, MI (#228)
- WLAV / WLHT Grand Rapids, MI (#68)



# GREAT SUPPORT FROM FRIENDS

Mentor Partners Inc, Big Rapids, Michigan

Craig Bowman, Futuri Media

Dave Grant, Cumulus Media Grand Rapids, Michigan

Mike Maciejewski, Townsquare Media, Grand Rapids, Michigan



# THANK YOU!

QUESTIONS?

