



## Development of a Configuration Tool for an Automotive Infotainment System



### TEAM MEMBERS



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### ABSTRACT

CIDEC-Delphi faces the necessity of improving the current process of radio configuration. The current configuration process is **error prone** due to it being an extensive ordeal and entirely dependent on the capability of an individual to accurately perform a long series of tasks. The implementation of a specialized computer application to automatically configure the radios will solve this problem inasmuch as the process will no longer require near as much human interaction, thus reducing the amount of stages where error may crop up. The project results show that the entire configuration process now only takes less than five minutes, providing an estimated time saving of at least 83% per month for software departments in QTC (Queretaro Technological Center).

### OBJECTIVE

- Design an application to automate radio configuration
- Perform quickly and without error
- Save time and money
- Reusable for later applications

### SCOPE

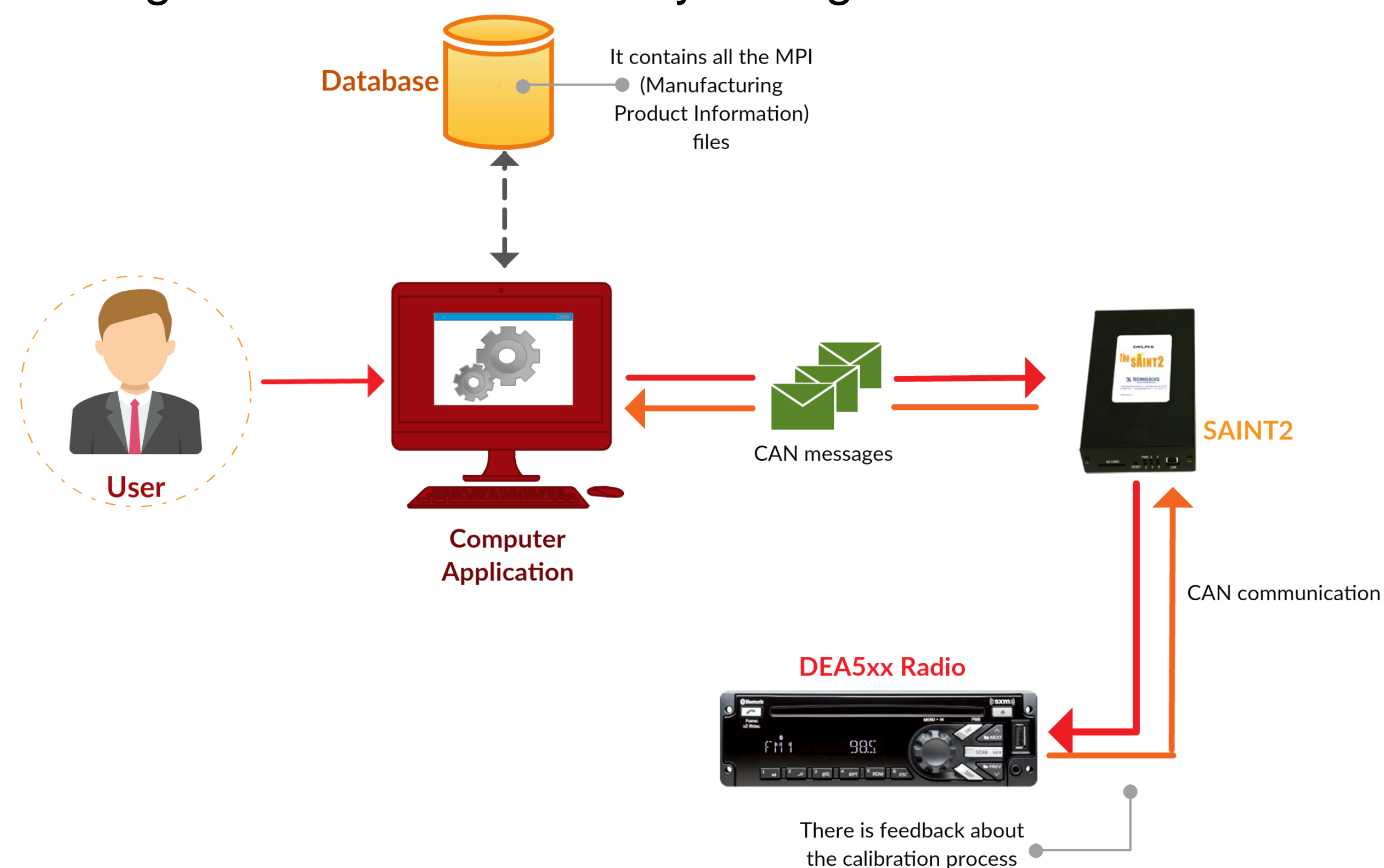
- Written in C#
- No Errors
- Takes less than five minutes
- DEA5XX Radio Family

### BACKGROUND

- CIDEC-Delphi is a joint venture between Condumex and Delphi Group [1]
- Decades of experience
- SAINT2 hardware tool is used to read and write to radios [2]
- Current programs are slow and error prone, and require much user input
- Errors cost money to fix

### METHOD

- Program converts radio spec sheets (MPIs) into data in a dynamic database
- User interface lets user pick a particular radio to configure
- Libraries write the stored parameters to the radio
- Program written to be easily changed for future needs



Software Application Structure

### RESULTS

We present our application:

# SINNER

*Because every Saint has a little sin*

	Radio calibration time	Percentage Saving
After	5 min	83%
Before	30 min	

- Calibration takes only minutes
- Already being implemented at one location
- Projected time savings of +83%
- Will be implemented at other locations

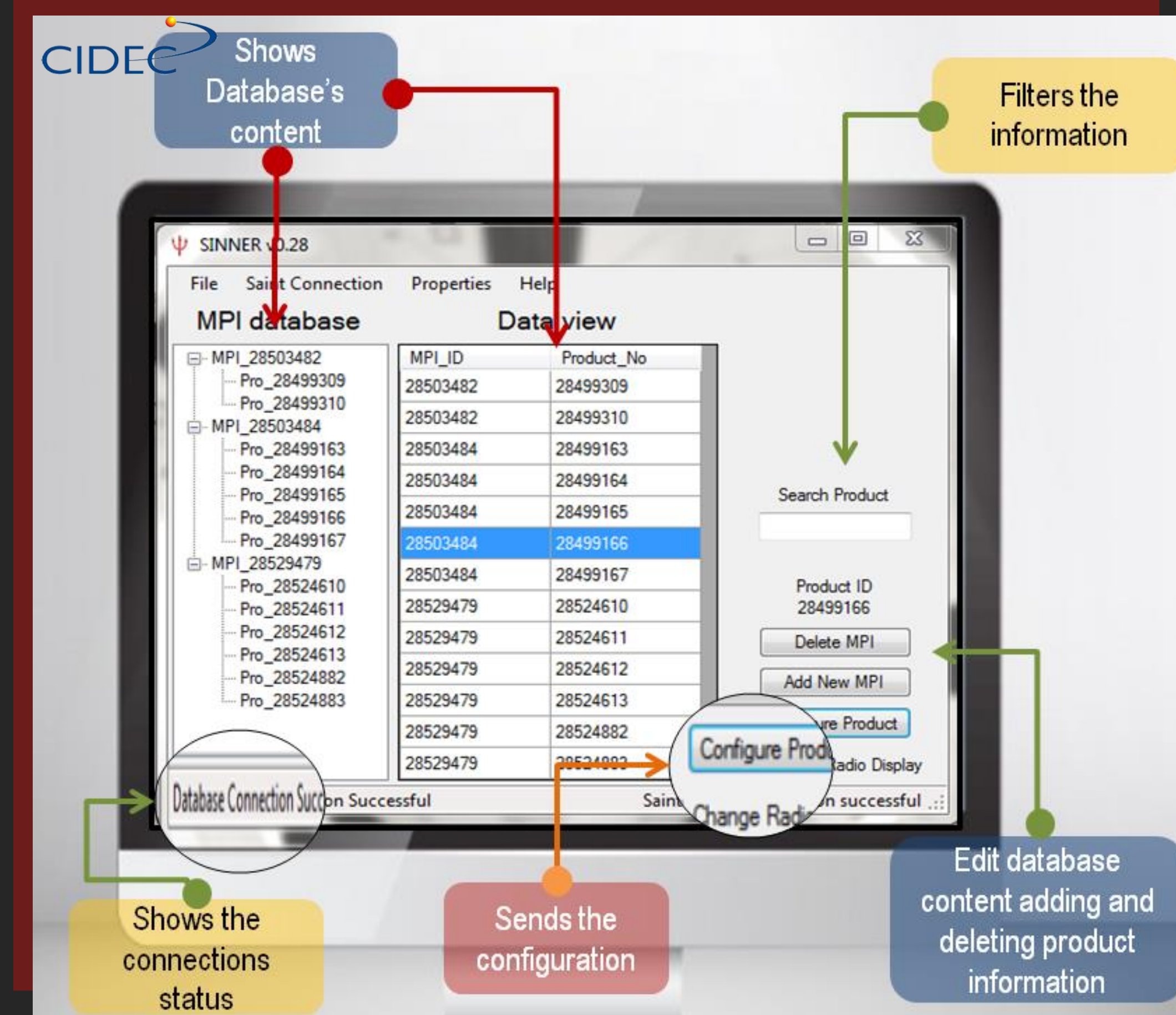
SAINT2  
INterfacing  
Network for  
Electronic  
Reconfiguration

### CONCLUSIONS

- With errors and difficulty reduced, time and money are saved
- Stopping the company from making mistakes will improve its reputation
- Manufacturing plant in Matamoros, Mexico will also implement our code
- This will save even more money



Radio being configured by the application



User Interface

### REFERENCES

- [1] "CIDEC-Delphi"  
[http://www.grupocondumex.com.mx/ES/cidec\\_centro\\_investigacion\\_y\\_desarrollo/Paginas/CTQ\\_centro\\_tecnico\\_queretaro.aspx](http://www.grupocondumex.com.mx/ES/cidec_centro_investigacion_y_desarrollo/Paginas/CTQ_centro_tecnico_queretaro.aspx)
- [2] "Systems Analysis Interface Tool 2"  
<https://www.dgtech.com/saint2/>