

# Creating a Better Partnership With Your Business

SOUTHERN ILLINOIS UNIVERSITY  
**EDWARDSVILLE**  
SCHOOL OF BUSINESS



# About Me

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## **Candice Greer, Programmer/Analyst IV, Ameren Services**

- 1998 graduate of Truman State University in Kirksville, Missouri
- Started career as a Programmer at Transcentric, formerly Union Pacific Technologies, supporting Overnite Transportation systems
- Accepted position at Ameren in 2001
  - Performed upgrade and maintenance activities on various systems including the service orders system, billing system, and payroll distribution system.
  - Led several major projects including implementing a work tracking and code repository system across all of Information Technology to aid in SOX compliance requirements, implementing a new sales tax system, implementing a new municipal tax system, and implementing a contract lifecycle management system

# Project Request

- It took several e-mails from the Tax Department before their request for an upgrade was entertained.
- The “High Level of items for upgrade” was taken as the only requirements for the project.



FROM: [REDACTED] Tax Department  
DATE: September 12, 2016 Meeting  
SUBJECT: **Upgrade of muni tax system**

**Muni Tax System:** Our muni tax system is approximately 16 years old. The system needs an upgrade to become more efficient. The muni tax system is a critical part in the payment of taxes. We make over 7700 payments and pay approximately \$190 million each year to municipalities in Missouri and Illinois. The current system doesn't have the flexibility for us to remain efficient.

High Level of items for upgrade:

1. Ability to download numbers from CSS into muni tax system.
2. To be able to account for per therm tax for gas started 6 years ago. Currently 10 municipalities have tax. For the revenue statement we use excel with various tabs for each municipality and do it manually.
3. Better format of the tax register we print out each month; ability to print only one page; the tax register report needs a few format changes.
4. Muni tax system can automatically calculate the 3 % fee we keep.
5. Automatic feed to AP for payment to municipalities.
6. Ability to email or fax revenue statements from the system.
7. Ability to get information into excel or similar for rate case purposes.
8. Have two data bases one for Illinois and one for Missouri. Currently have 4.
9. [REDACTED] revenues and payments under protest. Maybe we can combine into one database.

# What is the Munitax System?

- Ameren collects tax from its customers on behalf of the municipalities (circled in red on the right).
- We then take the tax and remove uncollectibles and add recoveries and then pay it to the municipalities (governed by local municipality ordinances).
- For Missouri we collect state tax (in blue on the right). Please keep this in mind as it will be addressed later in this presentation.

## Current Charge Detail for Statement 09/22/2020

|  |                 |
|--|-----------------|
| Electric Energy Charge - Residential   | \$145.14        |
| Electric Customer Charge - Residential | \$9.06          |
| Renewable Energy Adjustment            | \$0.54          |
| Fuel Adjustment Charge                 | -\$2.54         |
| Energy Efficiency Investment Charge    | \$4.85          |
| Missouri Local Sales Tax               | \$3.93          |
| Arnold Municipal Charge - Service      | \$10.02         |
| Dollar More                            | \$1.00          |
| <b>Amount Due</b>                      | <b>\$172.00</b> |

*Just a note...this is actually my bill. Please understand my kids think electric is free because I work for Ameren. They don't understand I pay the same as everyone else. They will when I ask them to pay some of the bill here in the near future though.*

# How Munitax Was Done Before

- There was a Munitax system but it wasn't programmed for the calculations that needed to be done and did not account for future company growth.
  - 4 spreadsheets for Illinois gas/electric/IMF service (one for each Ameren Illinois subsidiary)
  - 2 spreadsheets for Missouri
  - 6 different instances of the application because of 6 different databases, one for each subsidiary and one non-service database
  - 5 reports from another system
- Transfer of revenue between subsidiaries took place outside of the system...in spreadsheets.

| Name             | Area Code | From Rept | CURRST500 | Billed kWh's | kWh Tax Billing Rate | Multi Tax Charge | Uncollectibles kWh's | Tax Eff  | Recoveries kWh's | Tax Eff  | Taxable kWh's (CSS Work File) |
|------------------|-----------|-----------|-----------|--------------|----------------------|------------------|----------------------|----------|------------------|----------|-------------------------------|
| Tier 1           | 1454      |           |           | 9,495,170    | 0.003142             | 29,833.82        | 446,144              | 1,401.78 | (51,980)         | (163.32) | 9,101,006                     |
| Tier 2           |           |           |           | 6,441,784    | 0.002060             | 13,270.10        |                      |          |                  |          | 6,441,784                     |
| Tier 3           |           |           |           | 987,904      | 0.001854             | 1,831.57         |                      |          |                  |          | 987,904                       |
| Tier 4           |           |           |           | 1,518,554    | 0.001903             | 2,737.95         |                      |          |                  |          | 1,518,554                     |
| Tier 5           |           |           |           | 500,000      | 0.001751             | 875.50           |                      |          |                  |          | 500,000                       |
| Tier 6           |           |           |           | 200,147      | 0.001648             | 329.84           |                      |          |                  |          | 200,147                       |
| Tier 7           |           |           |           | 0            | 0.001627             | 0.00             |                      |          |                  |          | 0                             |
| Tier 8           |           |           |           | 0            | 0.001597             | 0.00             |                      |          |                  |          | 0                             |
| Tier 9           |           |           |           | 0            | 0.001576             | 0.00             |                      |          |                  |          | 0                             |
| Tier 10          |           |           |           | 0            | 0.001545             | 0.00             |                      |          |                  |          | 0                             |
| Total            |           |           |           | 19,143,569   |                      | 48,878.78        |                      |          |                  |          | 18,749,405                    |
| Report Tax       |           |           |           |              |                      | 48,878.33        |                      |          |                  |          |                               |
| Difference       |           |           |           |              |                      | 0.45             |                      |          |                  |          |                               |
| Logan            |           |           |           |              |                      | 0                |                      |          |                  |          | 0                             |
| Logan (Hansford) |           |           |           | 168,148      | 0.003842             | 646.02           | 0                    | 0.00     | 0                | 0.00     | 168,148                       |
| 1548             |           |           |           | 27,907       | 0.002513             | 70.13            |                      |          |                  |          | 27,907                        |

# Processing Time/Cost Per Month

## Missouri MuniTax

- 372 Municipalities
- Time – 4 Days
  - 2 days for data entry/validation in spreadsheets
  - 1 day data entry/processing in system
  - 1 day stuffing envelopes and mailing
- Cost
  - Labor
  - Paper/Toner Costs
  - Postage Costs @ 50 cents per statement for \$186

## Illinois MuniTax

- 286 Municipalities
- Time – 2 Weeks
  - 1.5 weeks for data entry/validation in spreadsheets
  - 2 days data entry/processing in system
  - 1 day stuffing envelopes and mailing
- Cost
  - Labor
  - Paper/Toner Costs
  - Postage Costs @ 50 cents per statement \$143

# Learning The Business

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What made me decide to shadow my business?

- Due to the requirements it was deemed the old application would not meet the new requirements and a new system was necessary to meet the requirements and to accommodate possible future company growth
- Spreadsheets had complex relationships and calculations
- Wanted to understand the business process and see the manual actions first hand so nothing was lost in translation
- Wanted to build trust with my business users so we could make decisions together

# My View of the World

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- How can I improve the life of my business user?
- Automation – Saving the company time and money so the business may focus on more value-added tasks.
- Data Accuracy – Pulling from or receiving a push from another system versus manually entering the data. Eliminate human error and tracking down typo's.
- Data Recovery – Network drives backed up once per day/week/month versus a database with real-time backup.
- Data Security – Who has access to the data and how can it be controlled.
- Auditability – Track who changes the data and, if necessary, track why they changed the data (especially important in financial systems).



# Expanding the Project Scope – Part 1

The second day sitting with my business I found another HUGE spreadsheet. It was used to figure the Missouri Sales Tax Return. The user informed me this was a bigger job than MuniTax and was all done manually in one spreadsheet.

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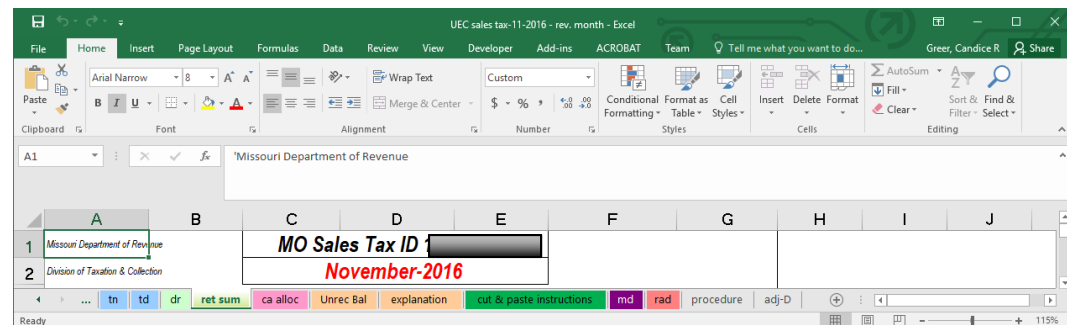
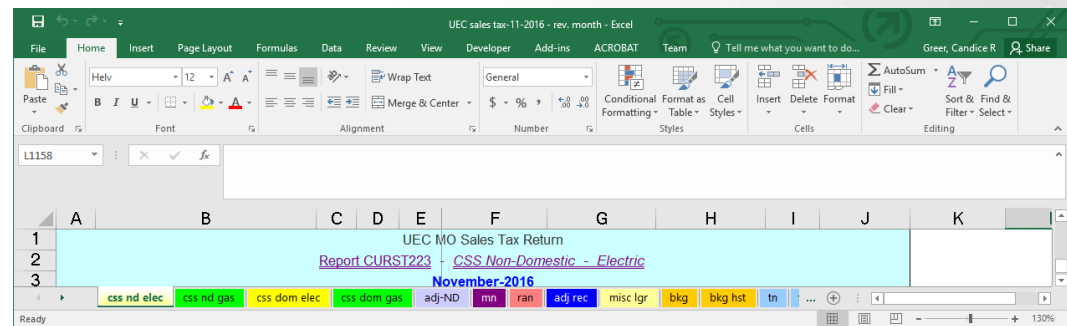
| AVC  | Business Location Name                                       | Business Location Code | Gross Receipts | Adjustments      | Taxable Sales | Tax Rate | Sales Tax Due |
|------|--|------------------------|----------------|------------------|---------------|----------|---------------|
| 1140 | Wintield   | 80422 113 MA01         | 367.96         | 0.00             | 367.96        | 3.750%   | 13.80         |
| 1141 | Winston  | 80548 061 1073         | 11,840.49      | (10,181.64)      | 1,658.85      | 6.225%   | 103.26        |
| 1142 | Winston  | 80548 061 MA01         | 0.00           | 0.00             | 0.00          | 2.000%   | 0.00          |
| 1143 | Wood Heights   | 80908 177 1075         | 23,702.44      | (21,478.06)      | 2,224.38      | 7.225%   | 160.71        |
| 1144 | Wood Heights   | 80908 177 MA01         | 0.00           | 0.00             | 0.00          | 3.000%   | 0.00          |
| 1145 | Woodson Terrace  | 80962 189 0205         | 178,888.82     | (113,030.96)     | 63,857.87     | 8.863%   | 5,639.55      |
| 1146 | Woodson Terrace  | 80962 189 MA01         | 1,230.88       | 0.00             | 1,230.88      | 4.638%   | 57.09         |
| 1147 | Woodson Terrace - Schuermann Hts                             | 80962 189 0249         | 4,865.69       | (4,649.47)       | 216.42        | 8.863%   | 19.16         |
| 1148 | Woodson Terrace - Schuermann Hts                             | 80962 189 MA01         | 0.00           | 0.00             | 0.00          | 4.638%   | 0.00          |
| 1149 | Wright City  | 81124 219 1077         | 184,402.80     | (126,722.49)     | 57,680.31     | 7.972%   | 4,600.00      |
| 1150 | Wright City  | 81124 219 MA01         | 1,218.94       | 0.00             | 1,218.94      | 3.750%   | 45.71         |
| 1151 | Wyaconda   | 81142 045 1079         | 11,107.00      | (8,130.58)       | 3,021.42      | 7.725%   | 233.41        |
| 1152 | Wyaconda   | 81142 045 MA01         | 120.45         | 0.00             | 120.45        | 3.900%   | 4.22          |
| 1153 | Grand Total - Sales Only                                     |                        | 172,859,381.14 | (127,177,917.38) | 45,682,363.76 |          | 3,664,420.72  |
| 1154 | Grand Total - Mtg Exemption Only                             |                        | 11,266,520.25  | 0.00             | 11,266,520.25 |          | 424,415.59    |
| 1155 | Grand Total - Entire Report                                  |                        | 184,125,901.39 | (127,177,917.38) | 56,948,884.01 |          | 4,088,836.31  |
| 1156 | Report CURST223 Sales Tax Report Totals (enter as signed)    |                        | 172,859,381.14 | (127,177,917.38) | 45,682,363.76 |          | 3,664,420.72  |
| 1157 | Report CURST223 Mtg Ex Sales Report Totals (enter as signed) |                        | 11,266,520.25  | 0.00             | 11,266,520.25 |          | 424,415.59    |
| 1158 | Difference   |                        | 0.00           | 0.00             | (0.00)        |          | 0.00          |

The users were manually entering 1152 rows each on four sheets in the workbook each month from a report from the billing system.

# Expanding the Project Scope – Part 1

## Missouri Sales Tax

- Process
  - 1 spreadsheet
  - 23 tabs all interdependent
- Time/Cost
  - 1 solid week
  - Postage to mail a 193 page return
  - Paper/toner expense to print off return



# Expanding the Project Scope – Part 2

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- Garnishments – Who knew you could garnish the tax revenues of a municipality?
  - More spreadsheets!!!!
  - Manually pull the system generated revenue statement and manually create a new one.
  - Half a day effort for the business
- Found one of the Missouri Munitax databases and application instance was strictly for tracking non-service revenue. They were taking the amounts from one instance and combining them with another.

## Expanding the Project Scope – Part 3

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Note: At this point of the project I now had sat and learned my user's jobs spending 1-2 days a week with them. I have given them my view of the world, built their trust, and they are actively looking for improvement opportunities and bringing them to me. Thus we gained these three items.

- Manually entering tax rates changes from...yet another spreadsheet.
- Manually creating their disbursement requests...you guessed it...another spreadsheet.
- Three more tax return types for Illinois...more spreadsheets and manual data entry from reports. Added the Gas Tax, Excise Tax, and Customer Assistance Return to the scope.

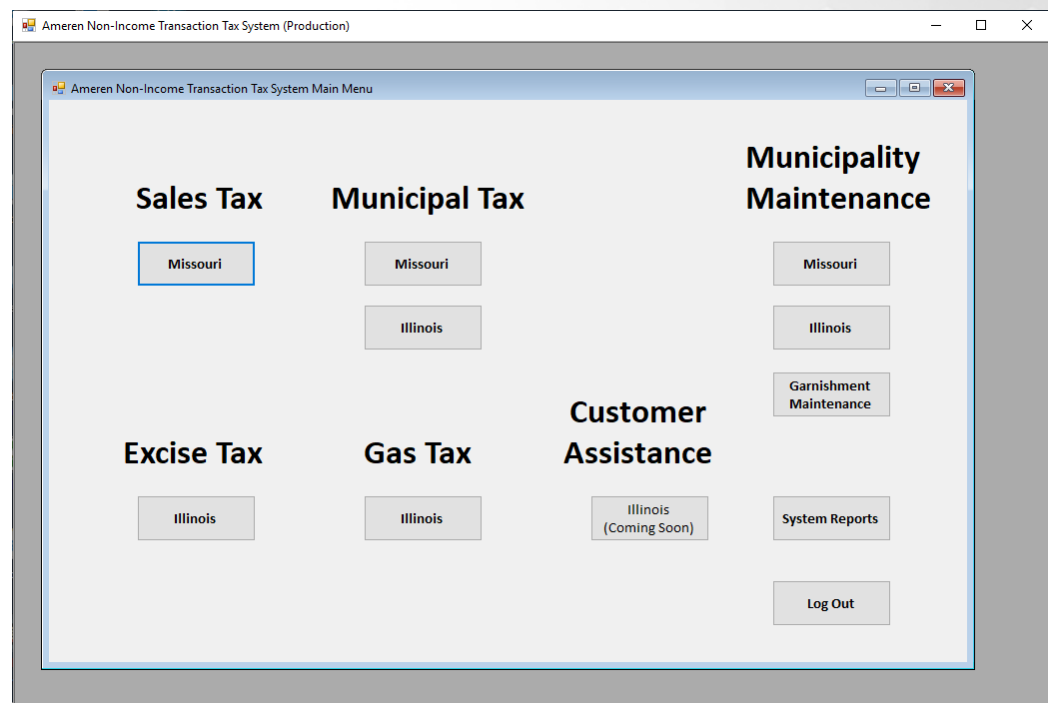
# Final Product

The original ask from the users was the Municipal Tax (MuniTax) piece.

Added Sales Tax, Excise Tax, Gas Tax, and Customer Assistance tax returns.

Also, gave them reports under the System Reports button that they were creating manually, they are now all automated.

Under municipality maintenance they have the ability to upload the spreadsheet of rate changes so they no longer manually key them in resulting in more time saved.



# Final Product

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All database/application instances were combined into one. This now aligns with how Ameren does its business by state, not subsidiary and easily accommodates future possible company growth.

Everything down to the garnishments is automated. Revenue statements are now e-mailed to all municipalities who supply e-mail addresses.

The system went in with very few bugs and very few follow-up enhancements for “missed” items. All requirements were met and follow-up enhancements were new ideas. In other words, it met the exact needs of the business.

Most importantly – NO MORE SPREADSHEETS!

# Company Hard Savings

## State Tax:

- 1 week processing down to 3 hours, most of which is data verification and submitting the return through the state site
- No more paper return to be printed or mailed, it is submitted electronically

## MuniTax:

- Almost 3 weeks processing between two states down to 1 day, all of which is data verification
- 90% of municipalities have statements e-mailed to them eliminating paper, toner, and postage costs

## Other Tax Types:

- 3 days processing down to 1 hour, all of which is data verification

## Overall:

- Equivalent of 1 full-time employee has been saved. The employee now does more value added work
- The business estimated \$10,000 a year savings in postage, paper, and toner costs.
- Due to all of the automation the system recovers the cost of creation in about two years.

# Company Soft Savings

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## Data Recovery:

- The data is no longer in spreadsheets on network drives
- Database is backed up real-time with more reliable data recovery

## Easier Reporting/Auditability:

- Data in the system is easily mined through reports now that data is all in application.
- The data is easily auditable. Whenever a value is changed in the system it tracks who made the change and why. Happy auditors = Happy company!

## Data Accuracy:

- Since data is no longer manually entered there is no more human error (typo's that take hours to track down).

## Data Security:

- Spreadsheets on networks are accessible by anybody with access to that drive/folder.
- The application controls who can see what data providing for better security of the data it holds.



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# Biggest Benefit – Business User Trust

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- Environment of openness. There is no ask that is too little and they don't feel "belittled" by asking for things or presenting their ideas.
- They are now actively looking for improvement opportunities
- They trust my judgement on how to set the systems up because they know I will sit with them and find the best possible way.

# The Tale of Not Learning the Business

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## The Tale of Two Projects – Another Project

- There were “workshops” with the business, no shadowing
- Tell me how you do your job instead of show me how you do your job
- Developers made business logic decisions without input of business and guessed at the requirements (those beyond the original ask)
- No developer/business relationship built

# The Tale of Not Learning the Business

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## Impacts to Business:

- Missed requirements
- Application did not meet the business user's needs
- Many follow-up enhancements to get system to meet business users needs so it is usable and functional
- No/Lost trust

## Costs:

- Time of developer to code enhancements/fixes
- Business down time from an unusable system (requirements issue)
- Ongoing costs after the project is over to "fix" the system
- Again, no/lost trust. I cannot express how much trust is worth

# When Should You Start Shadowing

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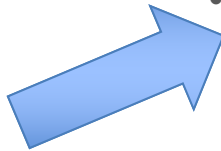
- Every project, as soon as you have the requirements from the business start arranging time with your developers to shadow the business. Get everybody to the table as soon as possible.
- Have a kick-off meeting to introduce the developer and the business users.
  - Show the original requirements
  - Explain the benefits and potential cost savings and what each side should be looking for.
- Schedule the meetings between the developer and the business for shadowing. Attend some yourself. If you don't do it, it probably won't happen. You don't want developers telling the business "tell me about your job". Make them see it first hand.
- Make sure that it is an "open zone". **The goal is to build trust.**
- Build shadowing time into your schedule.
- This should be done first thing in the project
  - Ensure all requirements are gathered
  - Ensure supplied requirements meet business needs
  - Make sure developers do analysis on all aspects of the project and it will meet the business needs

# The Resistance

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## Developers:

- Rather be coding
- Don't have time...too busy (always a system issue)
- Don't care about learning business, just give the requirements and let them do their jobs



## Business Users:

- Developers don't care (Previous Help Desk Experiences)
- Shadowing will slow down their daily work

# Overcoming The Resistance

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## Developers:

- If they learn their business user's job then requirements won't be missed. No missed requirements means no follow-up and onto next project faster. (Reduced burn out)
- Building trust with the business has them come back with more items and those can be more challenging.

## Business Users:

- Helping the developers understand can help them identify missed requirements.
- Developers can identify further improvement opportunities to make their lives easier.
- Help developers get the product right the first time eliminating need for follow-up enhancements and frustration over a system that doesn't work as expected.

**Note:** There will be situations where there are personality conflicts. The best you can do is recognize if that is the issue and work with the developer and business to work through it.

# Measures of Success

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## Simple Metrics

- How many follow-up enhancements/bug fixes for missed requirements?
- How usable is the system? Metric based off of specific system usage.

## User Group Meetings

- Hold follow-up user group meetings after implementation
- Have them talk about issues/frustrations – easy way to gauge usability of the system.

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# Thank You

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Thank you for attending and listening to my experiences. My hope is you apply this to better your projects and most of all, build trust with your business users.