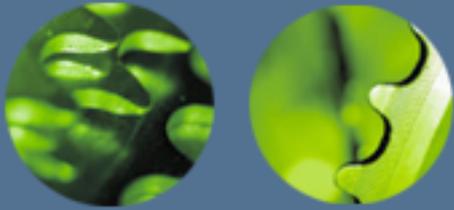




# Automation of Report Formatting and Production

IAC Student Meeting  
February 6, 2009  
Washington, D.C.

Ross DiLiegro  
Brandon Peery  
Wade Willatt  
SYRACUSE UNIVERSITY



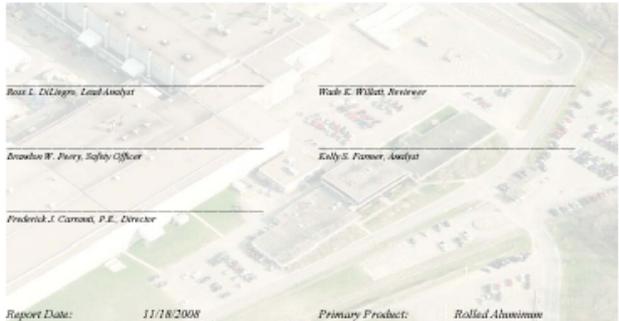
# INTRODUCTION

- Automation is a report production and formatting aid
- Goal: To free up analysts' time, which can then be devoted to more client-unique ARs.
- Ensures UNIFORM report formatting

**SYRACUSE UNIVERSITY**  
L.C. Smith College of Engineering and Computer Science  
Department of Mechanical and Aerospace Engineering

**INDUSTRIAL ASSESSMENT  
CENTER**

ASSESSMENT REPORT  
FOR  
SU0275



<i>Bois L. D'Azegre, Lead Analyst</i>	<i>Wade E. Willott, Reviewer</i>
<i>Brandon W. Pacey, Safety Officer</i>	<i>Emily S. Farmer, Analyst</i>
<i>Frederick J. Carrano, P.E., Director</i>	

Report Date:	11/18/2008	Primary Product:	Rolled Aluminum
Assessment Date:	9/19/2008	NARCS Code:	331315, 331314
Location:	Oswego, New York 13126	SIC Code:	3353, 3341

College of Engineering & Computer Science  
Department of Mechanical & Aerospace Engineering  
149 Link Hall  
Syracuse NY, 13244-1240  
A Program Sponsored by the United States Department of Energy



# OVERVIEW

- MS Excel-based VBA program
- Produces report skeleton and basic ARs
- Never used on analyst's first few reports

```
Microsoft Visual Basic - IAC Report Automation SU0249.xls - [Sheet22 (Code)]
Type a question for help

Project - VBAProject
  Sheet21 (Purchase Natural Gas)
  Sheet22 (Reduce Line Pressure)
  Sheet23 (Out Outside Air to Compressors)
  Sheet24 (Repair Compressed Air Leaks)
  Sheet25 (Install Motion Sensors)
  Sheet26 (Install Exit Signs)
  Sheet27 (High Efficiency Belts)
  Sheet28 (Utilize Synthetic Lubricants)
  Sheet29 (Vending Machine Motion Sensors)
  Sheet30 (Pay Utility Bills on Time)
  Sheet31 (Location Adjustment Factor)

Properties - Sheet22
  Sheet22 Worksheet
  (Name) Sheet22
  DisplayPageBreaks False
  DisplayRightToLeft False
  EnableAutoFilter False
  EnableCalculation True
  EnableOutlining False
  EnablePivotTable False
  EnableSelection 1 - xUnlockedCells
  Name Reduce Line Pressure
  ScrollArea
  StandardWidth 8.43
  Visible -1 - xSheetVisible

Worksheet
Private Sub Worksheet_Change(ByVal Target As Range)
    Application.ScreenUpdating = False
    Application.EnableEvents = False
    UnprotectWorkbook Me.Name

    Select Case Target.Address
    Case "$C$10"
        If Target.Value > 25 Or Target.Value < 1 Then
            MsgBox "Please enter a value between 1 and 25", vbCritical, "Compressors"
            Application.Undo
            ProtectWorkbook Me.Name
            Application.EnableEvents = True
            Application.ScreenUpdating = True
            Exit Sub
        End If
        Rows.Hidden = False
        If Target.Value < 25 Then
            Range("B" & 18 + Target.Value & ":J42").ClearContents
            Rows(18 + Target.Value & ":42").Hidden = True
        End If
    End Select

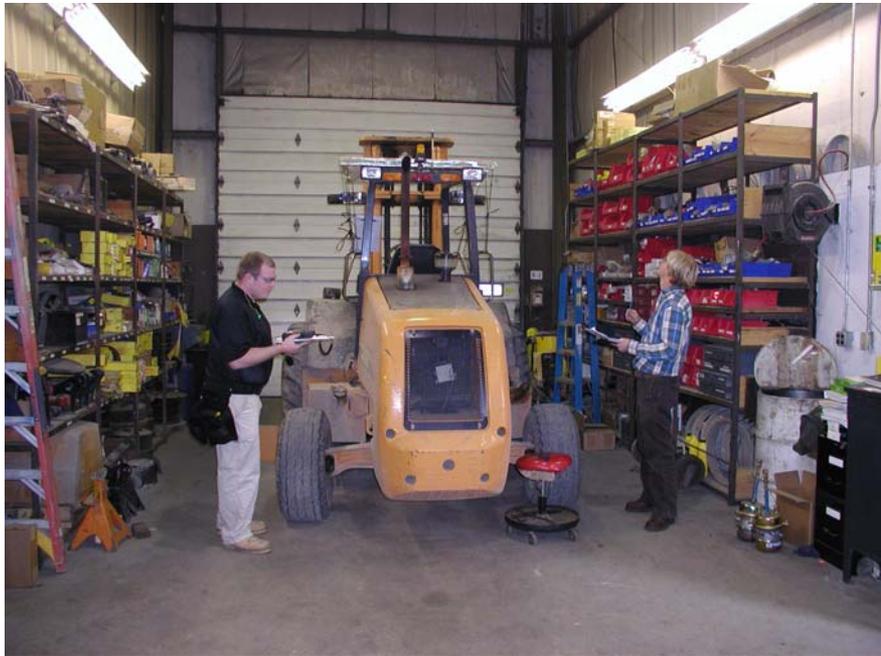
    ProtectWorkbook Me.Name
    Application.EnableEvents = True
    Application.ScreenUpdating = True
End Sub

Public Sub GenerateLLPTables()
    UnprotectWorkbook Me.Name
    Application.EnableEvents = False
    Application.ScreenUpdating = False

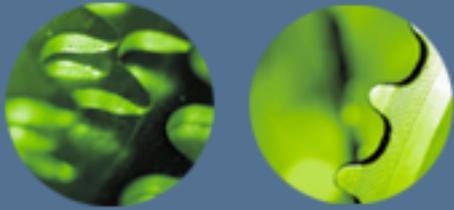
    Rows("100:1250").Hidden = False
    For i = 1 To Range("C10").Value
        CurrentRow = 53 + (50 * i)
    Next i
End Sub
```



# HISTORY



- SUIAC began development in 2003
- Originally MS Word-based, eventually moved to MS Excel
- Team members continuously improve program



# ARs PRODUCED

- Compressed Air
  - Lower Line Pressure
  - Fix Leaks
  - Duct in Outside Air to Compressor
- Electric Motors
  - Use Synthetic Lubricants
  - Use Segmented Belts





## ADDITIONAL ITEMS PRODUCED

- Cover Page
- Disclaimer
- Table of Contents
- Executive Summary
- Billing Summary
- General Plant Info Page
- Implementation Survey
- Additional Considerations
- Secondary Effects
- Best Practices
- Motor Inventory



# EXCEL

Microsoft Excel - IAC Report Automation SU00XX

File Edit View Insert Format Tools Data Window Help IAC Automation

Type a question for help

90%

Tahoma 10

F6 Presentation

**Syracuse University**  
Industrial Assessment Center

---

**Company Information**

<b>Company Name:</b>	Presentation
<b>Audit Report Number:</b>	SU0044
<i>Plant City:</i>	Syracuse
<i>State:</i>	New York
<i>Zip:</i>	13244
<b>Assessment Date:</b>	December 31, 2008
<b>Report Date:</b>	February 6, 2009

**Plant Information**

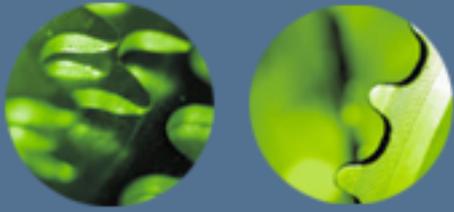
<i>Principle Product:</i>	Students
<i>Total Plant Area (ft<sup>2</sup>):</i>	44,000
<i>SIC Code:</i>	3344
<i>NAICS Code:</i>	332215
<i>Annual Sales:</i>	\$44,000,000
<i>Annual Production:</i>	33,633 Fans
<i>Employees:</i>	44
<i>Annual Shutdown:</i>	N/A
<i>Peak Production Period:</i>	N/A
<i>Energy Sources:</i>	<input checked="" type="checkbox"/> Electricity <input checked="" type="checkbox"/> Natural Gas <input type="checkbox"/> Fuel Oil #2 <input type="checkbox"/> Fuel Oil #4 <input type="checkbox"/> Fuel Oil #6 <input type="checkbox"/> Propane

**Shift Schedule**

<i>Dbf-Click to rename</i>	<i>Start</i>	<i>Stop</i>	<i>Days / Week</i>	<i>Weeks / Year</i>	<i>Employees</i>
<i>Shift 1</i>	7:00 AM	3:30 PM	5	52	100
<i>Shift 2</i>	3:00 PM	11:30 PM	5	52	14
<i>Shift 3</i>	11:00 PM	7:30 AM	5	52	11
<i>Office</i>	8:00 AM	5:00 PM	5	52	18
<i>Annual Plant Hours</i>	6,240 hours				

**On Site Personnel**

Company Information / Energy Information / Energy Consumers and Inventory / Assessment Recommendations / Unique Recommendations / Additional Considerations / Best Practices / Ext



# SUMMARY

- The Automation tool is a timesaver only
- Never to be relied on by analysts
- Constant improvement

U.S. Department of Energy  
**Industrial Assessment Centers**  
*Field Managers*

**IAC Field Managers**

The IAC program is field managed for the DOE by Center for Advanced Energy Systems at Rutgers University.

**IAC**

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Any comments or suggestions:  
[webmaster@iac.rutgers.edu](mailto:webmaster@iac.rutgers.edu)

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