

Prescriptive Analytics: Conclusion

INCOSE WMA Tutorial
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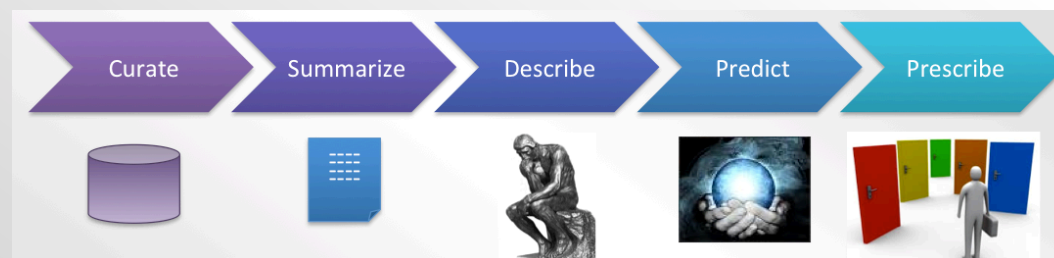
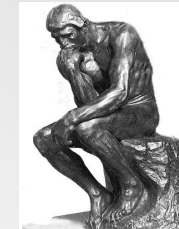
*“If you cannot measure it,
you cannot improve it.”*

- Lord Kelvin



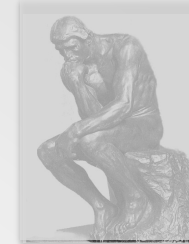
Recap: Categories of Analytics

- **Descriptive** - use data to understand past and present
- **Predictive** - use data to forecast future outcomes
- **Prescriptive** - use data to recommend courses of action

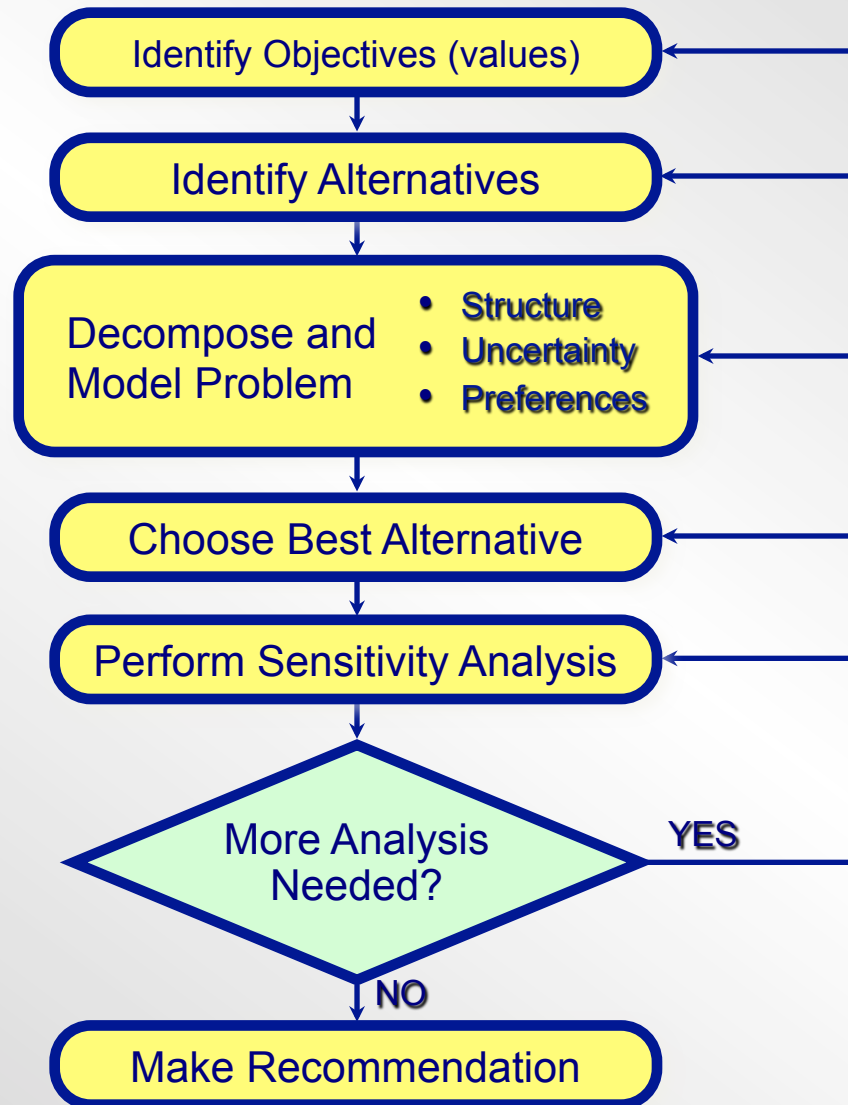


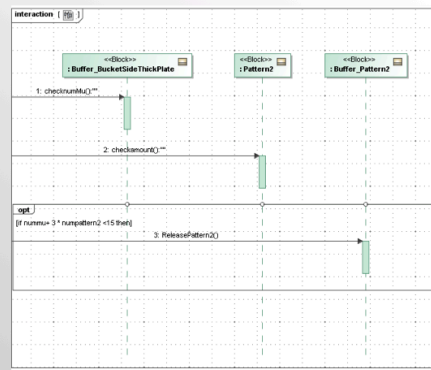
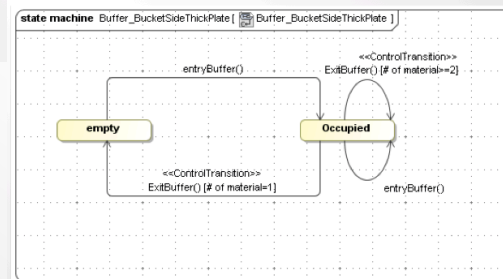
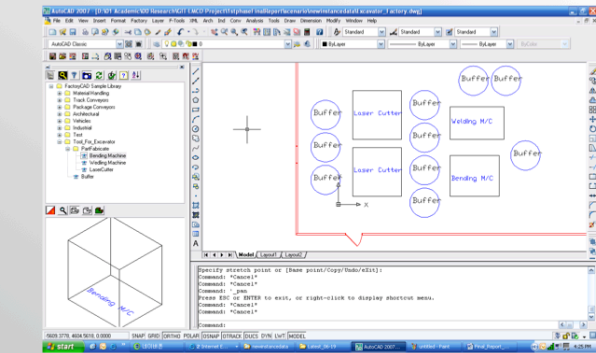
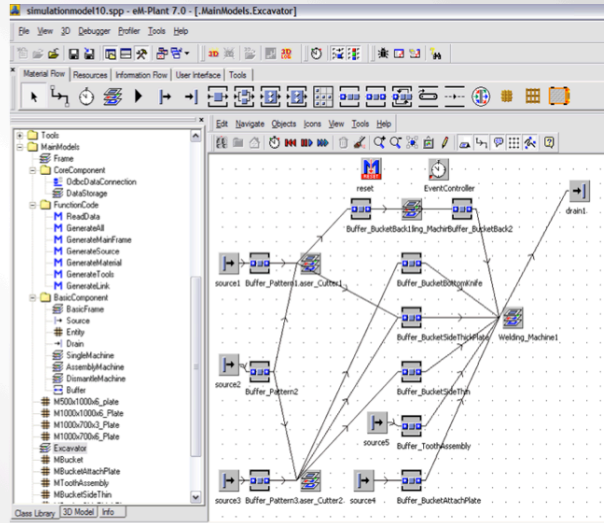
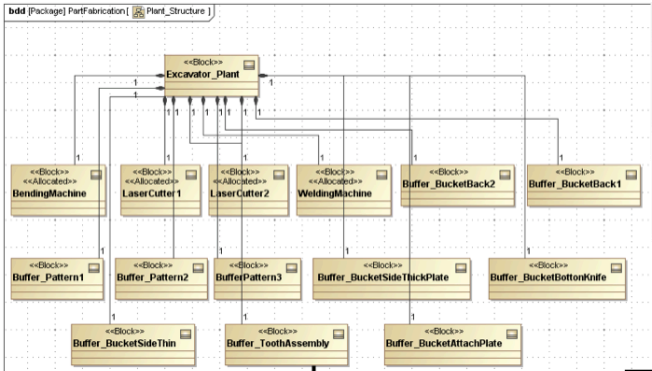
Recap: Categories of Analytics

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Recap: Prescriptive Analytics Process





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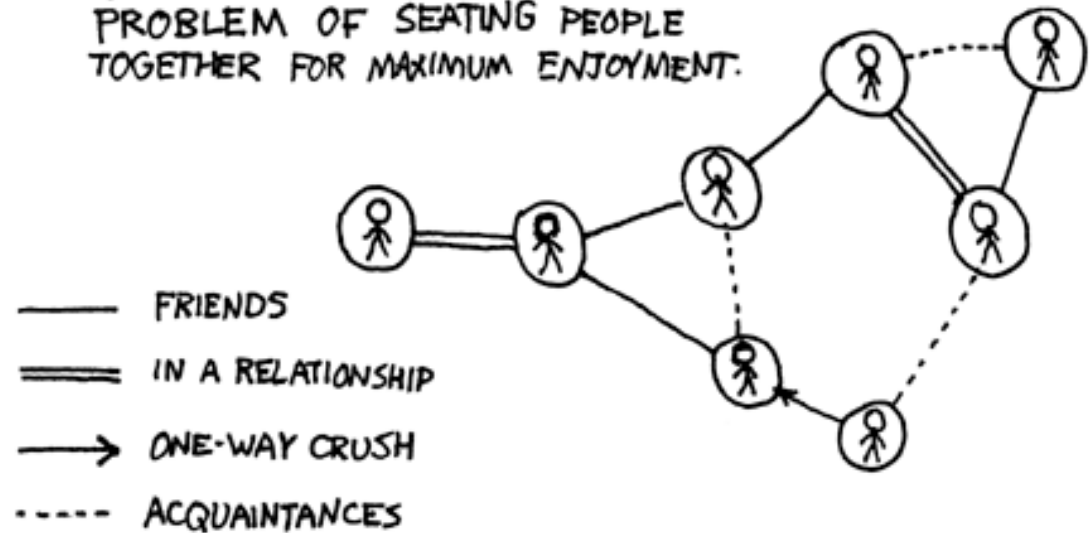
ViewCode ViewTree
is
numMu:Integer;
numpattern2:Integer;
do
numMu:=Buffer.BucketSideThickPlate.checknumMu();
numpattern2=Pattern2.checkamount();
if nummu+ 3 * numpattern2 <15 then
Buffer.Pattern2.ReleasePattern2();
end;
end;

ViewCode ViewTree
main
node
node
opt
node
  
```

Recap: Prescriptive Analytics and MBSE

Recap: Optimization for Prescriptive Analytics

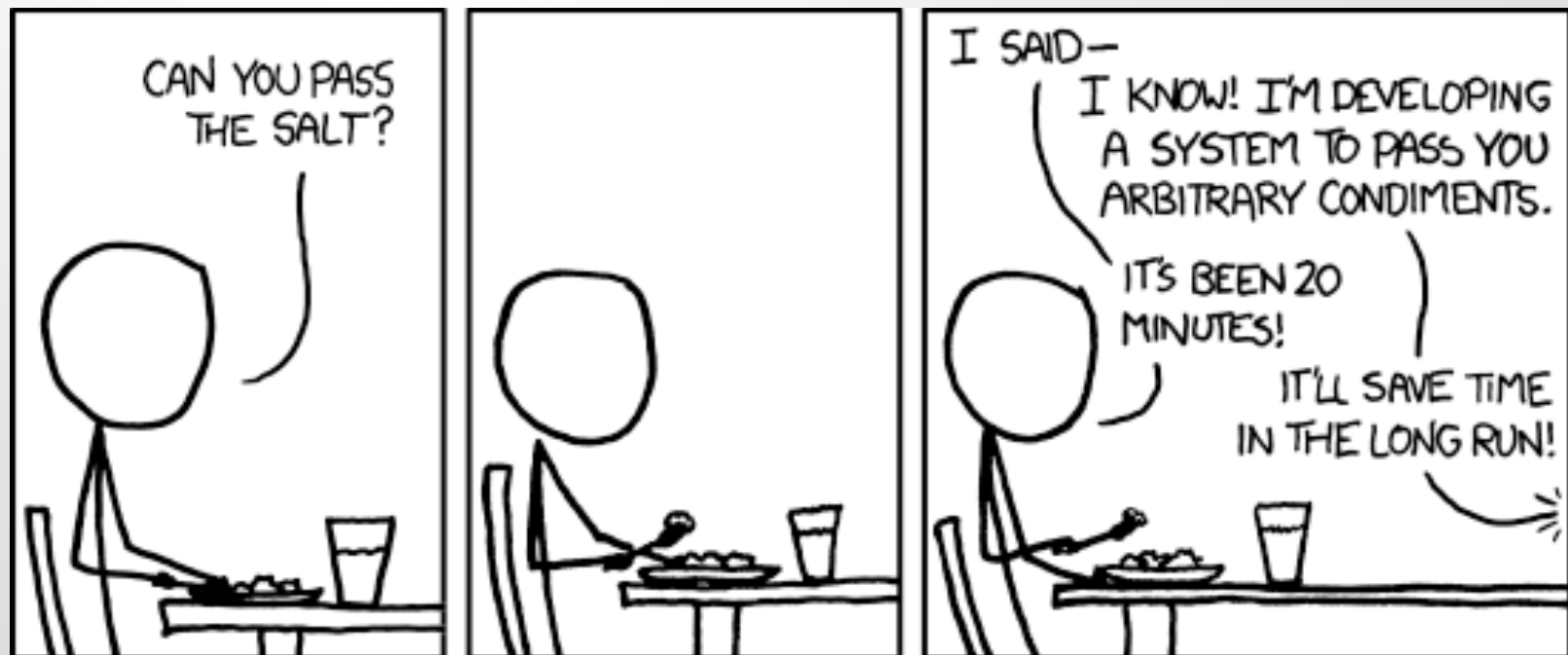
AT THE MOVIES, I GET FRUSTRATED
WHEN WE FILE INTO OUR ROW
HAPHAZARDLY, IGNORING THE
COMPUTATIONALLY DIFFICULT
PROBLEM OF SEATING PEOPLE
TOGETHER FOR MAXIMUM ENJOYMENT.



GUYS! THIS IS NOT
SOCIALY OPTIMAL!



Prescriptive Analytics Carried to Excess



<http://xkcd.com/974/>

Check Out Our New Program!

Graduate Certificate in Data Analytics (starting Fall 2013)

Motivation

Data analytics (i.e., the process of acquiring, extracting, integrating, transforming, and modeling data with the goal of deriving useful information) is becoming an important quantitative methodology in a wide variety of applications. The need for data analytics is due to the massive accumulation of "Big Data" in all industries to include but not limited to healthcare, finance, government (federal, state, and local), and cyber defense.

This certificate program provides a broad overview of the end-to-end value chain for Big Data Analytics, from the capture and management of the data, through the analytics that harness the data to create value. The program is designed to provide a framework for the methodologies for organizing and integrating disparate data, analyzing and visualizing the integrated data, and determining what decisions or actions should be taken to generate value from the data. The program is comprised of 12 credits of required coursework.

The certificate is intended for students who are interested in addressing the challenge of transforming the massive data arising in applications such as business analytics, cyber defense/forensics, energy, finance, genomics, healthcare, intelligence, law enforcement, or transportation, into meaningful information. The program is intended for graduate students in areas where applications of big data may arise.

Admission Requirements

Applicants should have an undergraduate degree from an accredited institution, with a GPA of at least 3.00 in their last 60 credits of study. While no specific undergraduate degree is required, a background in in engineering, business, computer science, math, information technology, is desirable, or alternatively strong work experience with data or analytics may be used.

Certificate Requirements

The following four courses (12 credits) must be completed with a grade of B or better:

- AIT 580 Analytics: Big Data to Information
- STAT 515 Applied Statistics & Visualization for Analytics
- CS 504 Principles of Data Management and Mining
- OR 531 Analytics & Decision Analysis

AIT 580, STAT 515, and OR 531 will be offered in Fall 2013. CS 504 and OR 531 are expected to be offered in Spring 2014.

For more information contact **Lisa Nolder**.



Enjoy your
Weekend!

