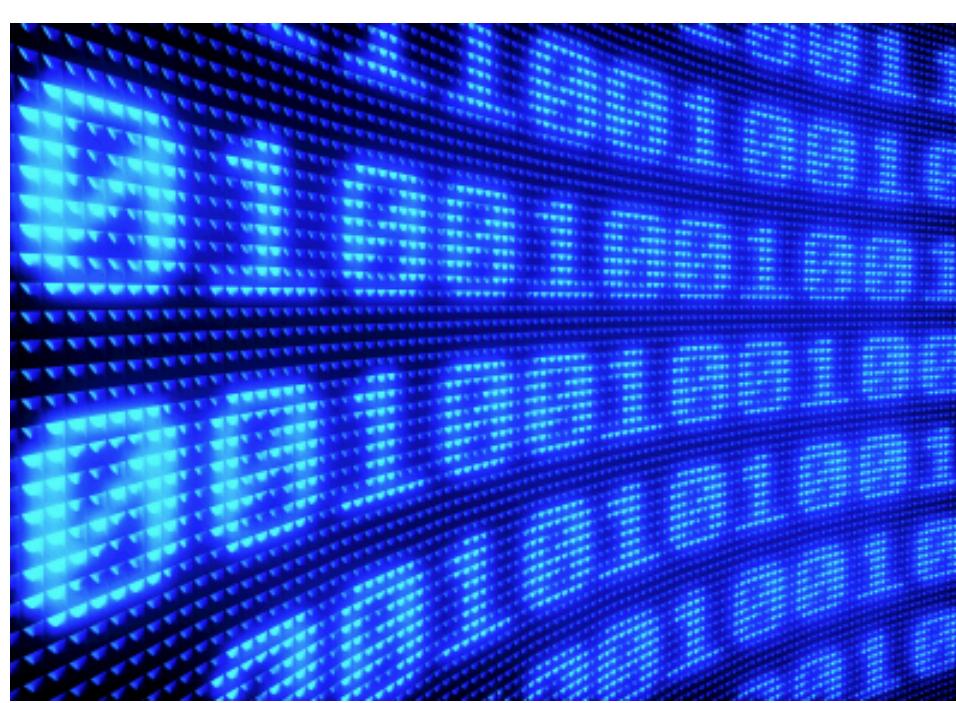
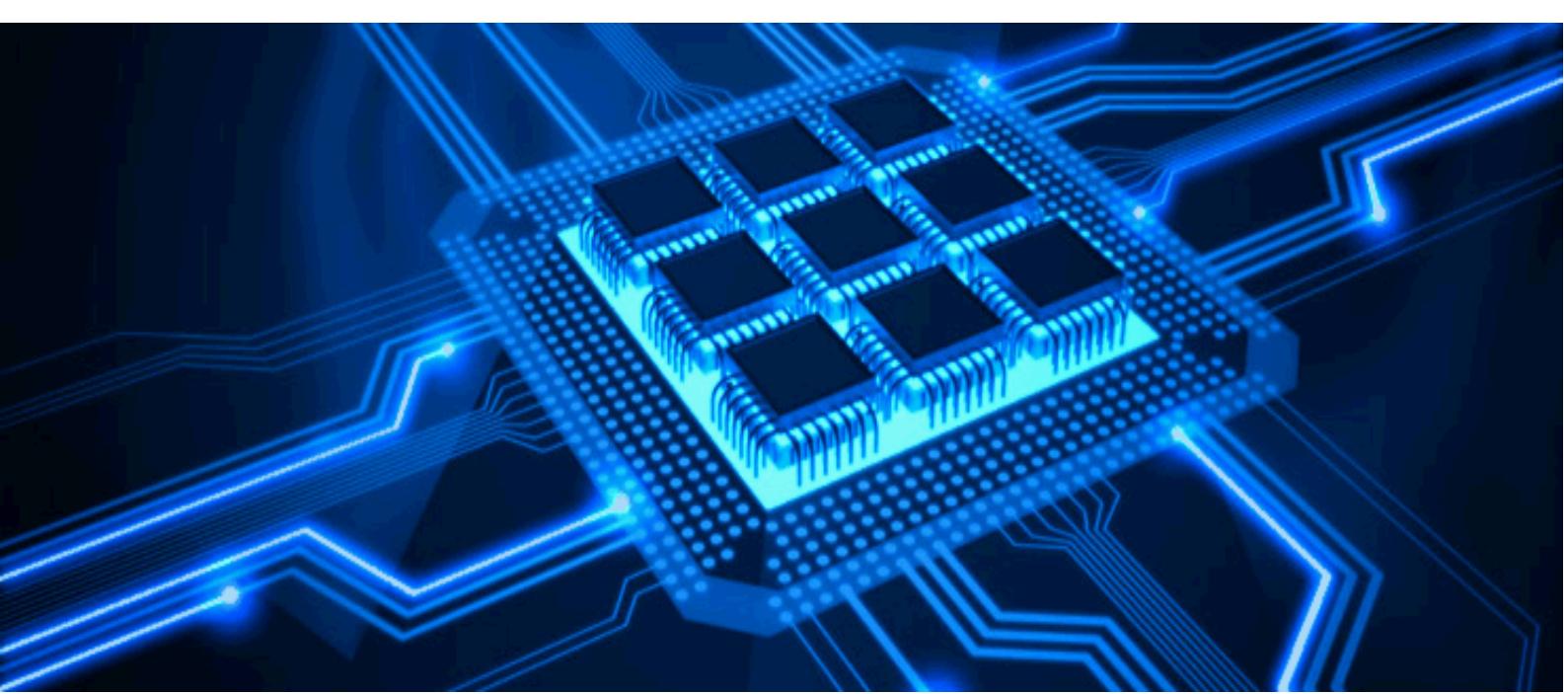


Exceptional service in the national interest



Sandia National Laboratories



```
GroupDesc::ElementDesc elDesc;
std::string sp_name = item->Attribute( "name" );
std::string spritename = item->Attribute( "spritename" );
float x = boost::lexical_cast<float>( item->Attribute( "x" ) );
float y = boost::lexical_cast<float>( item->Attribute( "y" ) );
float offset = boost::lexical_cast<float>( item->Attribute( "offset" ) );
unsigned layer = 50; // default
if ( item->Attribute( "layer" ) != NULL )
{
    layer = boost::lexical_cast<unsigned>( item->Attribute( "layer" ) );
}
elDesc.name_ = sp_name;
elDesc.spriteName_ = spritename;
elDesc.x_ = x;
elDesc.y_ = y;
```

Projects Overview

Name: Kamran Coulter
University: Oklahoma State University
Major: Bachelors of Science in Electrical Engineering
Expected Graduation: May 2017

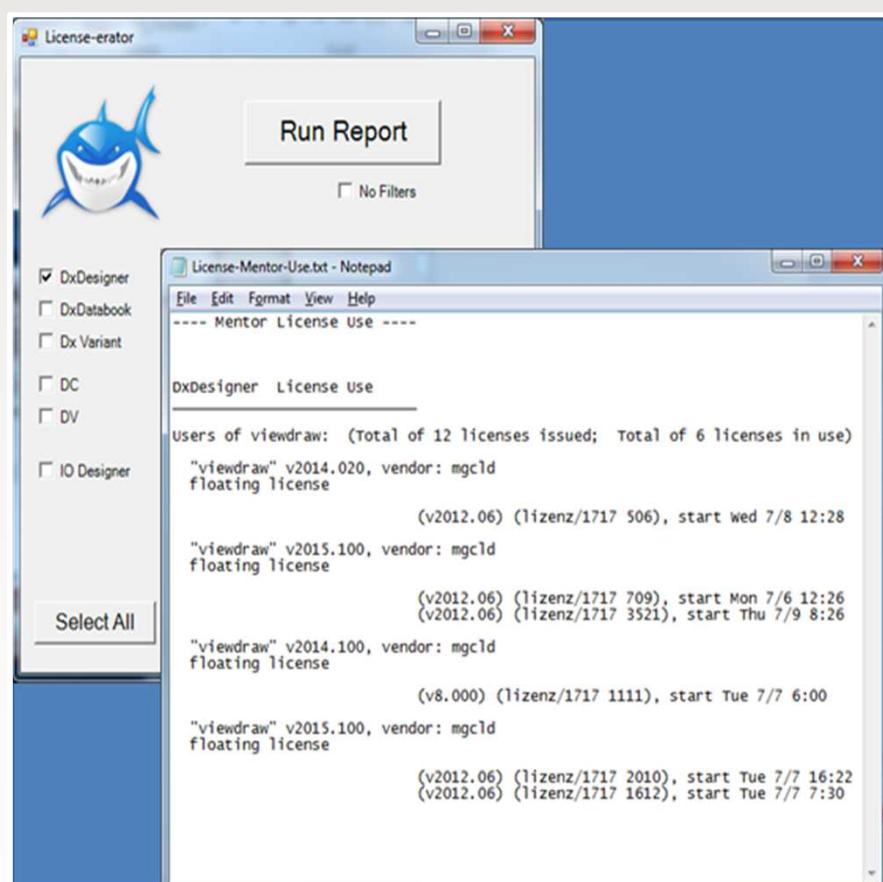
Manager: Kelly Wiegandt
Mentor: Joel Blend
Org: 2999

Projects:

- **ECAD Support Scripting**
- **ECAD Schematic Capture & PCB Layout**
- **High Level System Analysis**

ECAD Support Scripting:

Initial User Interface



History

- Preexisting script used primarily by ECAD support effective communication to the customer
- Used to monitor license usage internally

Need

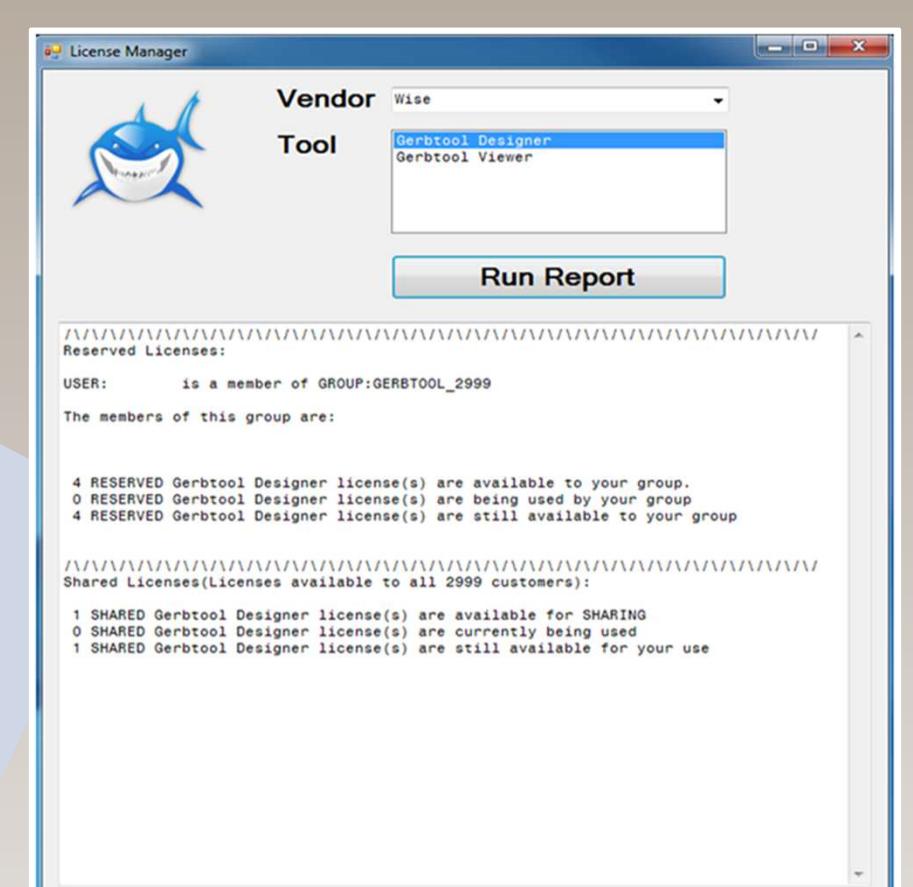
Need

- New customer grouping scheme to be
- Clear user interface
- Scalability
- Maintainability
- Concise Reporting

Design

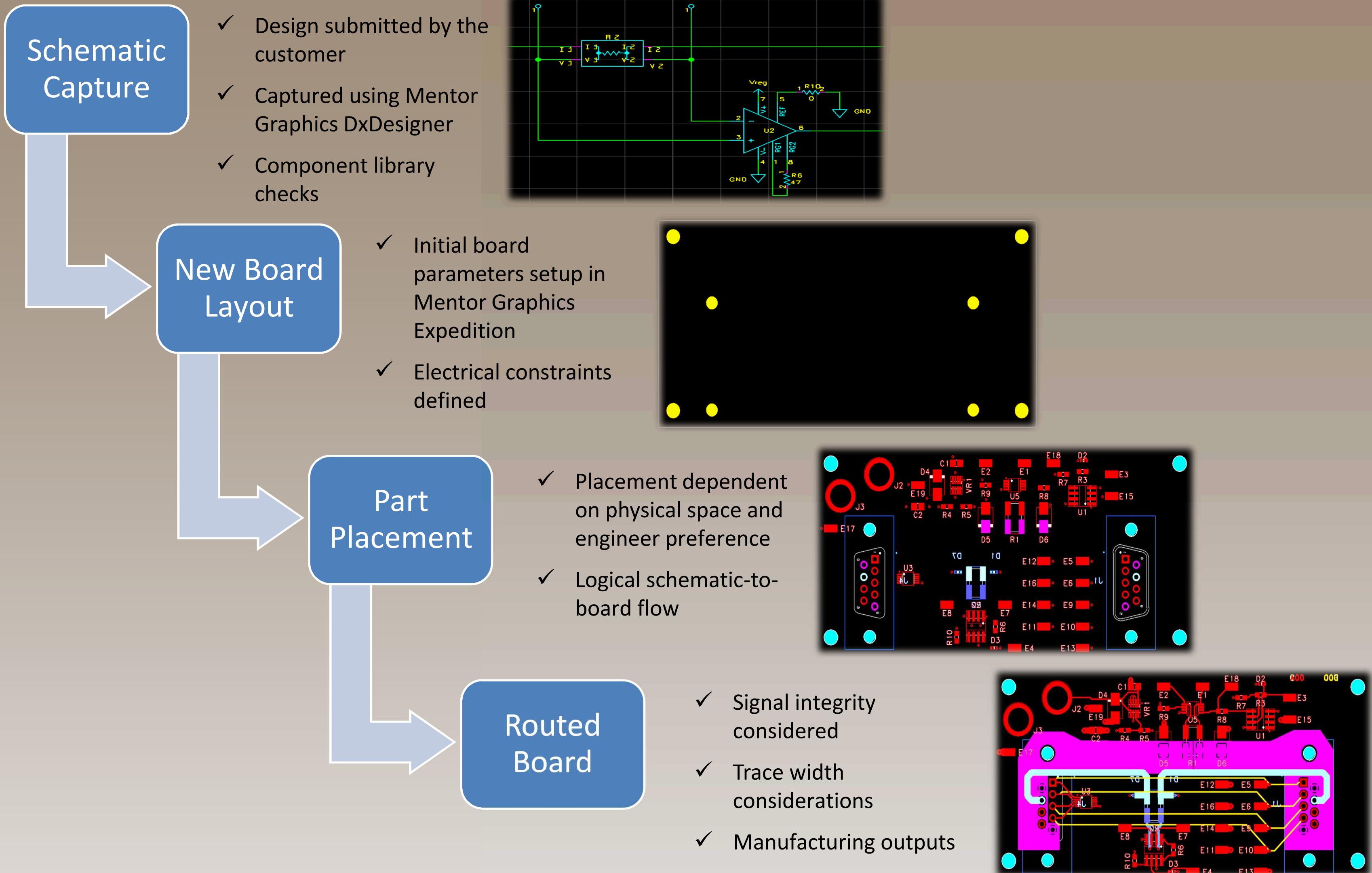
- Clear user interface
- Scalability
- Maintainability
- Concise Reporting

Final User Interface





ECAD Schematic Capture & PCB Layout:



High Level System Analysis:

