RRE Session Objectives

• At the completion of this session you should be able to:
  – Explain the concept of RRE
  – Locate and use example resources in your copy of EP Evaluator to
    ▪ Copy and paste data from excel into
      • Single experiments
      • Multiple experiments
  – Create a policy definition and make it your Master project.
EP Evaluator Concepts

• Project – a special database folder to contain a collection of Experiments for one or more Statistical Modules

• Statistical Module – Does calculations and report for a specific type of experiment - Like method comparison.

• Experiment – one set of data collected for a specific purpose for one analyte

• Instrument = method (think outside the box!)

• (RRE) Rapid Results Entry – mechanisms to efficiently enter data into EE

• Policy Definitions – A MASTER template of parameters used in RRE.
RRE Techniques
“Rapid Results Entry”

– Pasting results from Excel into existing experiment
  ▪ Pasteextdetail.xls
– Paste with Policies into the Overview screen
  ▪ Paste with policies table
  ▪ Paste with Policies list
– Efficient keyboard entry of results using printouts for multiple analytes
  ▪ RRE\create experiments \ Keyboard
– Instrument Interface: data capture directly from instruments, or from an instrument export file for Vendors only
– ODBC Data Acquisition from Instrument Manager - the Best way

• EE Users Guide Chapters 35, 36, 37
• Help Topics are available for most all of the setup screens
Which statistical modules use RRE?

- RRE does not apply to modules where experimental results aren’t input
  - Cost per Test, Incident Tracking, Inventory, Performance Standards, Six Sigma Metrics

- A few modules use RRE techniques that are a bit “different”
  - Hematology Method Comparison, ROC, Establish Reference Interval, Average of Normals (advanced techniques)

- Everything else
  - Simple Precision, Alternate Method Comparison, Two Instrument Comparison, Linearity, Complex Precision, etc.
  - RRE is very similar - though not exactly alike
<table>
<thead>
<tr>
<th>Data Entry Type</th>
<th>Considerations</th>
<th>Product code</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Entry</td>
<td>Slow Speed of entry, typos, one analyte at a time</td>
<td>All</td>
<td>Good</td>
</tr>
<tr>
<td>Rapid Keyboard entry from Instrument printouts using a panel defined worksheet</td>
<td>RRE wizard walks through the process, but still subject to typos and speed of entry</td>
<td>Standard</td>
<td>Good</td>
</tr>
<tr>
<td>Copy and paste from Microsoft Excel</td>
<td>RRE Wizard for Multiple analytes, multiple instruments – but still need to put the data into the worksheet.</td>
<td>Standard</td>
<td>Better</td>
</tr>
<tr>
<td>Instrument Data Capture – RRE Wizard</td>
<td>Cable hookup, or instrument generated file</td>
<td>Data Capture</td>
<td>Better</td>
</tr>
<tr>
<td>Driver specific for IVD Manufacturers Only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Capture from Instrument Manager</td>
<td>RRE - Simple Data query for thousands of results</td>
<td>Data Capture</td>
<td>Best 6</td>
</tr>
</tbody>
</table>
EP Evaluator® and Instrument Manager®

- Data stored within the Instrument Manager’s Cache database can be easily transferred to EE9 or EE10 or EE11 via Data Capture.

- Requirements
  - IM version 8.08 or greater
  - Specimen Management licensed
  - ODBC driver licensed
  - Minimum: Standard version with Data capture license (unlock code 2\textsuperscript{nd} letter is Q, V, or P)
EP Evaluator
Data Capture Versions

• Standard (Q)
  – 30 Stat and 4 Lab Management Modules
  – Data Capture

• Professional Version (P)
  – Everything plus User security and audit trail

- Available as single user, or upgrade to multiple user networks
- Part # EE-D-xxxx
ODBC Demo
ODBC Query from Instrument Manager
4 Filters

• Date / time range
• Instrument ID
• Test codes
• Specimen ID
In this session, we will use:

- **Project “Example Policies”**
  - Restore using Utilities \ file Manager if you don’t see it in your open project menu

- **Spreadsheets in the Resources folder**
  - Pasting results from Excel into existing experiment
    - Pasteextdetail.xls
  - Paste with Policies into the Overview screen
    - Paste with policies table
    - Paste with Policies list

- **Technique**
  - Efficient keyboard entry of results on printouts for multiple analytes
    - RRE \ create experiments \ Keyboard
RRE Techniques
“Rapid Results Entry”

- Pasting results from Excel into existing experiment
  - Pasteextdetail.xls
- Paste with Policies
  - Paste with policies table
  - Paste with Policies list
- Efficient keyboard entry of results on printouts for multiple analytes
  - RRE\create experiments\Keyboard
- Instrument Interface: data capture directly from instruments, or from an instrument export file for Vendors only
- ODBC Data Acquisition from Instrument Manager - the Best way

• EE Users Guide Chapters 35, 36, 37
• Help Topics are available for most all of the setup screens
Find your Resource folder

In EE 11.2
Resources in EE11

Annotated examples for RRE techniques are available in your EE\Resources folder. Use with the project ExamplePolicies
The easiest RRE Technique ...
Paste into Experiment Detail Screen

- Paste results into an experiment instead of typing them
- One experiment at a time
- Policy Definition not required

**Applicable Statistical Modules:**

- Simple Precision
- Complex Precision
- Linearity
- AMC
- EP9 MC
- QMC
- 2IC
- INR Geo Mean
- Factor Sensitivity
- STB Stability

- MIC
- Glucose POC
- Hematology MC
- Sensitivity-LOB
- Sensitivity-LOQ
- VRI
- ERI/ROC
- INR Meth Comp
- SA Simple Accuracy
- TRU Trueness

- EP10
- Carryover
- 6 Sigma Metrics
- Performance Standards
- Interference
- Cost per Test
- AON
- INR Check
- HIS Histogram

*Available in CLIA version? Yes*
Paste into Experiment Detail Screen

- Create an experiment as if you were going to type the results …
  - Experiment – New
  - Experiment – New from Policies

- Then paste the results instead of typing them

- Paste just the numbers – not column headings or Sample IDs.

- Note: This technique doesn’t work for all statistical modules
Exercise: Simple Precision detail screen

• Open project ExamplePolicies –
  (you might need to restore it in Utilities / File Manager / restore backups)

• Open spreadsheet pasteExptDetail.xls.
  – Go to the SP tab

• In EE, Create a new Simple Precision experiment
  
  Instrument: MED-E
  Sample: L1

  Analyte: Glucose
  Units: mg/dL

• At the point where you would normally type results:
  – Switch to Excel. Select and copy just the results
  – Switch back to EE and do Edit/Paste
Outcome of the Simple Precision Experiment

![Graph showing the outcome of a simple precision experiment. The graph displays points on a scatter plot, indicating the precision of measurements taken against a target mean. The Obs Mean is 134.8 mg/dL, and the Obs SD is 3.4 with a range of 2.6 to 5.0 mg/dL. The SD Goal is to achieve an Obs CV of 2.5%. The Target CV is not specified. The sample size is 19 of 19.]
Exercise: Alternate Method Comparison

• Open spreadsheet PasteExptdetail.xls.
• Go to the AMC module overview screen
• Create a new AMC experiment for Glucose:
  
  X Method: MED-E
  Analyte: Glucose

  Y Method: MED-N
  Units: g/dL

• When you would normally type results:
  – Switch to Excel. Select and copy the three columns of specIDs and X and Y results. Do not copy column headings.
  – Switch back to EE and do Edit/Paste
Outcome of the AMC Experiment
Species IDs

• Very important for RRE
• Method Comparison SPECID used to link the data pairs
• Linearity SPEC IDS needed for each level of “standards” LIN-01, LIN-02, LIN-03, .....
• SPECID is alphanumeric
• SPECID sort is alphanumeric, not numeric. 1, 10, 2, 20, 3, 30, .....
• Default SPECIDs for EE follow the format S00001
• Pasting from spreadsheets requires SPECID as a Header name for spreadsheets
Exercise: Linearity

- Create a new experiment in the EE Linearity Module

  Instrument: Eximer
  Units: mg/dL
  TEa: 1.0 (mg/dL)
  Reportable Range: 0 - 20
  Analyte: Calcium
  Confirm Lin, Acc, RR
  Systematic Error Pct: 50%
  Prox. Limits: 50% low, 10% high

- Click the yellow Edit button to enter Assigned Values
  - Type L1, L2, ..., L5 in the Spec ID Column
  - Type your assigned values in the assigned value column.
    - TIP: if you have your assigned values in excel, you can copy the grid with the specIDs and assigned values to the clipboard
    - In EE, right-click the cell for the L1 value and select Paste from the popup menu

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>1</td>
</tr>
<tr>
<td>L2</td>
<td>4</td>
</tr>
<tr>
<td>L3</td>
<td>7</td>
</tr>
<tr>
<td>L4</td>
<td>11</td>
</tr>
<tr>
<td>L5</td>
<td>17.5</td>
</tr>
</tbody>
</table>
Linearity Exercise (continued)

• Select OK to close the Parameters Screen and get to the Experiment Detail Screen

• Go to the Linearity tab of the pasteExptDetail spreadsheet

• In Excel, copy just the measured results from the spreadsheet.
  – Note that the results are laid out in a square in Excel, similar to how they look in EP Evaluator

• Switch to EE and do Edit/Paste to enter the results
Outcome of the Linearity Experiment

![Graph showing the outcome of the linearity experiment with data points and a trend line. The table on the right side of the graph lists the accuracy and linearity data for different specifications.](image-url)
There is an easier way ...

• First, go back to the Linearity Module Overview Screen and delete the experiment you just created.

• Then select Experiment / New from Policies

  Instrument: Med-E  Analyte: Glucose
  Specimen Kit: PreAsgKit  PRK

• Note that there are no yellow fields on the Parameters Screen

• The reason is Policy Definition
Policy Definition will auto-fill the yellow fields in all the Parameter Screens

Without Policy Definition

With Policy Definition
With defined Policies

• You can paste data to create multiple experiments
  – Multiple analytes
  – Multiple Instruments
  – Multiple specimens

• The Parameters screen for each experiment is automatically filled in

• Immediately calculate and review results
Step-by-step Approach to Policy Definition

TIP: You can create a MASTER project at any point in the process

1. Instrument Class, Analytes & Units
2. Performance Standards
3. Linearity Materials
Use the MASTER Project to propagate your Policies to your future Projects

• When policy definition is complete, use RRE\define Policies\Utilities to create a MASTER Project
• The MASTER project template contains only Policies (no experiments).
• You cannot open, delete or rename your master project.
• You can only modify the policies within it, plus backup and restore)
• When you create a new project, that new project is initialized to contain whatever Policies are in MASTER.
How to copy policies to the MASTER project

• Menu command RRE / Define Policies
• Select the Utilities button
• Policy Utilities shows
  • Left: active current project
  • Right: Master project contents

• On your active project policies, highlight the policy you wish to copy
• Select the Copy button
• The policy is copied to the Master project.
  • Same name classes get replaced
  • New classes get added
Step 1 – Instrument Class, Analytes, and Units

- Go to **Statistical Modules Screen**

- Select **RRE / Define Policies** from the menu; select the Non-Hematology Tab
Instrument Class

- **Instrument Class** – contains policy definitions for instruments having the same analytical properties – like a peer group
- Policy Definition always starts by adding or Selecting an Instrument Class.
  - All the other buttons apply changes to the selected class
- When you “add” an instrument class, EE automatically puts one instrument, with same name as the class, in the new class.
- Add additional instruments, either
  - in policy definition or
  - while creating experiments
Add an instrument class

• F3 adds a new instrument class
• Right click (clone) duplicates an existing instrument class with the same instruments, analytes and parameters that you can modify.
• Add a new instrument class called EXAMPLE
• Enter new analytes and their units
  – Albumin
  – T Bili
  – D Bili
RRE Policy Definitions
Policy Definition Analytes

Non-Hematology

Settings for all statistical modules EXCEPT Hematology Method Comparison.

Editing class

Sample-US

Names > 16 ch get TRUNCATED

Either IM test codes or common name labels of <= 16 ch

Inst or IM test codes

*Coag Flag (for Coag modules): P=Protime, N=INR, A=APTT
The edit copy/paste feature updates the policy screens.
Instrument settings

- Add all instruments you will use here
- Instrument name must be unique
- Serial numbers must be unique,
- Within an instrument, a S/N can be the same as its name.
- MIC abbrev <= 10 characters (must have if using MIC)
## Applicable Statistical Modules:

- Simple Precision
- Complex Precision
- Linearity
- AMC
- EP9 MC
- QMC
- 2IC
- INR Geo Mean
- Factor Sensitivity
- Histogram
- MIC
- Glucose POC
- Hematology MC
- Sensitivity-LOB
- Sensitivity-LOQ
- VRI
- ERI/ROC
- INR Meth Comp
- STB
- EP10
- Carryover
- 6 Sigma Metrics
- Performance Standards
- Interference
- Cost per Test
- AON
- INR Check
- Simple Acc

### Available in CLIA version? Yes - **BUT**

but while the data can be pasted, the parameters screen needs to be filled in manually
Exercise: Paste with Policies into Simple Precision

(this technique works great for a spreadsheet with multiple analytes)

• Use the EE Project “Example Policies”
• In Excel, open spreadsheet PastePoliciesTable.xls
• Select the entire SP tab sheet and copy it to the clipboard
  – For Paste with Policies, we DO want to copy the column headings and Spec IDs
• Switch to EP Evaluator and open the Simple Precision module, but do not create an experiment
  – Paste with Policies starts from the Module Overview Screen, not the Experiment Detail Screen
• Select Edit / Paste with Policies / Data in Table Format from the menu. Instrument Example.
• Do Module / Recalc All
Screen after Pasting

![Screen after Pasting](image)

### Simple Precision

#### Instrument

- **Med-E**

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Sample</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>Level 1</td>
<td>19 of 19</td>
<td>5.02 / 4</td>
<td>0.30 / 0.3</td>
<td>5.9% / 6.0</td>
</tr>
<tr>
<td>Glucose</td>
<td>Level 1</td>
<td>19 of 19</td>
<td>134.8 / 130</td>
<td>3.4 / 4</td>
<td>2.5% / 3.0</td>
</tr>
<tr>
<td>Sodium</td>
<td>Level 1</td>
<td>19 of 19</td>
<td>87.9 / 90</td>
<td>1.0 / 1.1</td>
<td>1.1% / 1.3</td>
</tr>
</tbody>
</table>
Exercise: Paste with Policies into AMC

• In Excel, open spreadsheet `pastepoliciesTable.xls`

• Go to the **AMC** Tab Sheet in the spreadsheet.
  – Note that the sheet is organized with X values and Y values in separate arrays.
  – The headers must include “SpecID” and Analyte Names.
  – the Analyte Names must be spelled *exactly* as in the policy definition.

• Copy the X values, spec Ids and include the headers.

• Switch to EP Evaluator and open the **AMC** module

• Select *Edit / Paste with Policies / Data in Table Format* from the menu. Select “New instrument and call it “senior”

• When asked if you want to link, answer **No**.
Paste Data from Spreadsheets – into the Overview screen

- Spreadsheet Data looks like “paste with policies table”.
  EE\Resources\PastePoliciesTable.xls

- SPECID required

- Results in columns with analyte names as headers
  - Spelled the same as in your Policy definition class

<table>
<thead>
<tr>
<th>InstSerNo</th>
<th>SpecID</th>
<th>Calcium</th>
<th>Glucose</th>
<th>Sodium</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA-1001</td>
<td>S001</td>
<td>3.4</td>
<td>170</td>
<td>187</td>
</tr>
<tr>
<td>AAA-1001</td>
<td>S002</td>
<td>17.4</td>
<td>500</td>
<td>81</td>
</tr>
<tr>
<td>AAA-1001</td>
<td>S003</td>
<td>19.7</td>
<td>541</td>
<td>92</td>
</tr>
<tr>
<td>AAA-1001</td>
<td>S004</td>
<td>6.9</td>
<td>463</td>
<td>172</td>
</tr>
<tr>
<td>AAA-1001</td>
<td>S005</td>
<td>16.3</td>
<td>290</td>
<td>180</td>
</tr>
<tr>
<td>AAA-1001</td>
<td>S006</td>
<td>5</td>
<td>410</td>
<td>56</td>
</tr>
<tr>
<td>AAA-1001</td>
<td>S007</td>
<td>19.3</td>
<td>36</td>
<td>162</td>
</tr>
<tr>
<td>AAA-1001</td>
<td>S008</td>
<td>2.6</td>
<td>488</td>
<td>156</td>
</tr>
<tr>
<td>AAA-1001</td>
<td>S009</td>
<td>11.9</td>
<td>535</td>
<td>85</td>
</tr>
<tr>
<td>AAA-1002</td>
<td>S001</td>
<td>8</td>
<td>177</td>
<td>189</td>
</tr>
<tr>
<td>AAA-1002</td>
<td>S002</td>
<td>17.2</td>
<td>487</td>
<td>82</td>
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<tr>
<td>AAA-1002</td>
<td>S003</td>
<td>14.3</td>
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<td>90</td>
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<td>8</td>
<td>519</td>
<td>171</td>
</tr>
<tr>
<td>AAA-1002</td>
<td>S005</td>
<td>15.5</td>
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<td>185</td>
</tr>
<tr>
<td>AAA-1002</td>
<td>S006</td>
<td>11.9</td>
<td>402</td>
<td>55</td>
</tr>
<tr>
<td>AAA-1002</td>
<td>S007</td>
<td>22.5</td>
<td>32</td>
<td>164</td>
</tr>
<tr>
<td>AAA-1002</td>
<td>S008</td>
<td>6.7</td>
<td>511</td>
<td>157</td>
</tr>
<tr>
<td>AAA-1002</td>
<td>S009</td>
<td>8.1</td>
<td>463</td>
<td>82</td>
</tr>
</tbody>
</table>
Screen after Pasting X Method

1. Click No if you only have one method.
2. Method and analyte show which results were pasted into the Database.
Exercise: Paste Second Method and Calculate (All)

• Repeat the Paste with Policies for the Y-Method area the spreadsheet.
  • Remember you need to include the headers for the analyte and SPECID. In Excel, you can right click the group of rows for the X values and hide them from being copied.

• Differences:
  • Select instrument Med-N instead of adding a new instrument
  • When asked if you want to link, answer Yes.
    • X method is “Senior”, Y method is “Med-N”.
  • After linking, do Module Recalc All
Screen after Pasting Y Method
Paste with policies into Module Overview Screen - Summary

• This method will paste
  • Multiple analytes
  • One instrument or 2 (or more) instruments

• In EE, Open the module and remain in the Module Overview Screen. AMC in this example.

• Switch to your excel spreadsheet formatted for each method like so:
  • Analyte Results are in columns with header names spelled exactly the same for both methods.
  • a SpecID column is required as the first column.

• For the X method, Highlight the Analyte names and results, but NOT the method name From the Excel menu, select Edit/Copy.

• Switch to EE. From the Module Overview Screen, select Edit/Paste with policies table from the EE menu. When EE asks whether you want to link the methods, answer No. because you only have one set of data.

• Switch back to Excel, and repeat the steps for the Y method. This time, when EE asks whether you want to link, answer Yes.

X Method

<table>
<thead>
<tr>
<th>SpecID</th>
<th>Calcium</th>
<th>Glucose</th>
<th>Sodium</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC123</td>
<td>10.5</td>
<td>513</td>
<td>164</td>
</tr>
<tr>
<td>AQQ344</td>
<td>11.5</td>
<td>585</td>
<td>123</td>
</tr>
<tr>
<td>QBZ555</td>
<td>8.8</td>
<td>176</td>
<td>192</td>
</tr>
<tr>
<td>AOQ123</td>
<td>20.3</td>
<td>468</td>
<td>83</td>
</tr>
</tbody>
</table>

Y Method

<table>
<thead>
<tr>
<th>SpecID</th>
<th>Calcium</th>
<th>Glucose</th>
<th>Sodium</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC123</td>
<td>10</td>
<td>500</td>
<td>159</td>
</tr>
<tr>
<td>AQQ344</td>
<td>11.5</td>
<td>600</td>
<td>123</td>
</tr>
<tr>
<td>QBZ555</td>
<td>8.9</td>
<td>182</td>
<td>189</td>
</tr>
<tr>
<td>AOQ123</td>
<td>20.1</td>
<td>467</td>
<td>87</td>
</tr>
</tbody>
</table>
Linking and Unlinking

• Each data set is a separate data file within the EE database.

• Scatter plots for two methods are created by linking matching specIDs.

• To link the scatter plots:
  – Say “Yes” to the prompt when using “Paste with Policies” if you have two methods.
  – You can link any two methods at any time with the Experiment \ “Link X/Y methods” command.

• To unlink a scatter plot:
  – Right click on the specific experiment in the Overview screen and choose “unlink.”
RRE Step 2 – Performance Standards

- We have just done a lot of Rapid Results Entry
- We created many experiments at once
- We calculated instantly
- But we have no Performance Standards
Modules and options

These settings control the defaults in the parameters screen
The tabs and input columns appearing in Analyte settings depend on selections in Modules / Options

- Minimal

![Analyte Parameters - Key](image)

- Most pass/fail options selected

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Medical Decision Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>%Glu</td>
<td>1</td>
</tr>
<tr>
<td>A1C</td>
<td>50</td>
</tr>
<tr>
<td>ApoB</td>
<td>3.5</td>
</tr>
<tr>
<td>ApoA</td>
<td>40</td>
</tr>
<tr>
<td>ALT</td>
<td>0</td>
</tr>
<tr>
<td>Amikacin</td>
<td>5</td>
</tr>
<tr>
<td>Ammonia</td>
<td>18</td>
</tr>
<tr>
<td>AmpQ</td>
<td>1000</td>
</tr>
<tr>
<td>AmpSQ</td>
<td>1000</td>
</tr>
<tr>
<td>Amy</td>
<td>25</td>
</tr>
<tr>
<td>Amy-L</td>
<td>1</td>
</tr>
<tr>
<td>Ant-CCP</td>
<td>5.0</td>
</tr>
<tr>
<td>Ant-HCV</td>
<td>0.8</td>
</tr>
<tr>
<td>Ant-TG</td>
<td>0</td>
</tr>
<tr>
<td>Ant-TPO</td>
<td>0</td>
</tr>
<tr>
<td>ApoA</td>
<td>95</td>
</tr>
<tr>
<td>ApoB</td>
<td>49</td>
</tr>
</tbody>
</table>

Key (SF)
Exercise

• Do **RRE/Define Policies**, and select the Sample-US class.

• Select **Modules and Options**. Check the five standard modules: Simple Precision, Linearity, AMC, VRI, and 2IC

• Select **Analyte Settings**. Define the settings for your analytes.

• Go to the Linearity Module and do **Experiment / New from Policies** for your analyte. Are all the yellow fields filled in?
Step 3 – Linearity Materials

• Go to RRE / Define Policies
• Select Instrument Class Example
• Select the Linearity Standards button
Exercise

• Add a Linearity Kit
  – Value Mode: Pre-Assigned
  – Kit Name: Juicy
  – Number of Specimens: 5
  – Instrument Code: J

• Set Assigned Values for the Kit as defined on the following Slide
### Juicy Linearity Kit Package Insert

Lot Number: A2345B  
Expiration Date: 03/31/2009  
Calibrated using National Reference Method Values

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>25</td>
<td>200</td>
<td>375</td>
<td>550</td>
<td>725</td>
</tr>
<tr>
<td>Sodium</td>
<td>110</td>
<td>130</td>
<td>150</td>
<td>170</td>
<td>190</td>
</tr>
<tr>
<td>Asparagus</td>
<td>2</td>
<td>25</td>
<td>60</td>
<td>95</td>
<td>110</td>
</tr>
</tbody>
</table>
Exercise: Pasting Linearity Results with Policies

• Go to the Linearity tab in the RRE-Examples spreadsheet and correct the spec IDs
  – If the Kit’s Instrument code is “J”, then J-01, J-02, etc must be the specIDs of the specimens
    ▪ when run on the instrument
    ▪ the specID of the specimens in the paste file
  – Select the entire tab page and import it to the Linearity module using Paste with Policies / Data in Table Format
Preferences – Interface Tab

- Ignore excess replicates when importing
- Don't interface flagged specimens
- Retain Linearity history when replacing
- Initialize interfaced/pasted HMC morphology parameters to 0
- Keep newest (not oldest) rep when importing
- Trim excess decimals when importing

Separator for level in linearity spec IDs:
- Dash
- Underscore
- Period
- None

*Some instruments don't allow dashes in specID*
4 ways to create a new experiment using manual or copy/paste techniques

• 1. Experiment / New experiment
  – Must enter instrument, analyte names, units, TEa, everything!
  – 1st Icon does the same thing.

• 2. Experiment / New from Policies
  – if policy definitions are set up, no need to re-enter analyte parameters

• 3. Copy and paste from spreadsheet to automatically create new experiments
  – In Module Overview Screen, paste data copied from spreadsheet.
  – Can paste multiple analytes from multiple instruments with spec IDs.
  – With or without policy definitions set up.
    ▪ If you don’t have policy definitions established, then you will need to enter the values for required fields in the parameter screen.

• Example spreadsheets in EE/resources folder
4. Keyboard entry from Printouts

Best way to transcribe data from printed reports

1. **RRE \ Create experiment**
   1. Must have some policies defined
   2. Must have panels defined in printout order
   3. Entry of spec IDs is recommended to ensure correct linking of data.

2. **Select keyboard entry and follow the prompts**
   1. Can enter a new instrument
   2. Can create new panels

3. **A worksheet appears for you enter data.**

4. **Press F9 to send data to the experiment**
   1. For method comparison, Answer No to “Link X and Y”

5. **Repeat for second instruments data**
   1. Answer YES to “Link X and Y”
Keyboard entry from Printouts

• RRE Create Experiments

• Keyboard Entry
RRE \ Create experiment

RRE Wizard

What do you want to do?

1. Instrument Interface
   - Instrument Serial Numbers:
     - Ignore
     - Capture One
     - Capture All
   - Re-use results from last download

2. Keyboard Entry

Have you defined your policies? If not, you will have to click down into each experiment to supply missing parameters before you can calculate.

Go to Define Policies Now

RRE Wizard

Use an instrument already in policies or create a new one that will stay in policies for this project

Instrument

- Manual (in class Class Manual)
- New Instrument

Force SpecID length lets you use the last few unique characters of a bar code ID instead of having to type all 16

- Force SpecID Length
  - Length: 3
  - Trim: Right
  - Pad Left

Prev Cancel Help Next
RRE Worksheet

• Enter data from printouts in specified panel order
• Go to desired module overview screen
• Click RRE create experiments
• Follow prompts to popup RRE worksheet.
• Note that it is automatically named and will be saved in the EE\Data\studies\”project name”\RRE folder
• Manually enter specIDs and data
• Press F9 to send data to new experiment
• You will be prompted to save the RRE worksheet
# Related documents

<table>
<thead>
<tr>
<th>When using policies</th>
<th>Without policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Paste policies /table or list</td>
<td>• PasteParmSS.xls can paste and create experiments in any EE version</td>
</tr>
<tr>
<td>• Example policies project</td>
<td>• PasteParms SS is very similar to the RRE worksheet</td>
</tr>
<tr>
<td>• RRE worksheet</td>
<td>• RRE field codes.xls provide the correct codes for the required parameters.</td>
</tr>
</tbody>
</table>
What is the File Format?

### List Format (One Result per Line)

<table>
<thead>
<tr>
<th>InstSerNo</th>
<th>SpecID</th>
<th>TestDate</th>
<th>TestTime</th>
<th>Analyte</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA-1000</td>
<td>SPEC1</td>
<td>7-Apr-08</td>
<td>0:08:00</td>
<td>Calcium</td>
<td>10.1</td>
</tr>
<tr>
<td>AAA-1000</td>
<td>SPEC1</td>
<td>7-Apr-08</td>
<td>10:42:00</td>
<td>Glucose</td>
<td>171</td>
</tr>
<tr>
<td>AAA-1000</td>
<td>SPEC1</td>
<td>7-Apr-08</td>
<td>13:25:00</td>
<td>Sodium</td>
<td>120</td>
</tr>
<tr>
<td>AAA-1000</td>
<td>SPEC2</td>
<td>7-Apr-08</td>
<td>10:32:00</td>
<td>Calcium</td>
<td>10.1</td>
</tr>
<tr>
<td>AAA-1000</td>
<td>SPEC2</td>
<td>7-Apr-08</td>
<td>13:18:00</td>
<td>Glucose</td>
<td>81</td>
</tr>
<tr>
<td>AAA-1000</td>
<td>SPEC2</td>
<td>7-Apr-08</td>
<td>19:55:00</td>
<td>Sodium</td>
<td>111</td>
</tr>
</tbody>
</table>

### Table Format (One Specimen per Line)

<table>
<thead>
<tr>
<th>InstSerNo</th>
<th>SpecID</th>
<th>TestDate</th>
<th>TestTime</th>
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<th>Sodium</th>
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</thead>
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<td>10:32:00</td>
<td>10.1</td>
<td>81</td>
<td>111</td>
</tr>
</tbody>
</table>

Optional

Optional in some cases
Without Optional Columns …

<table>
<thead>
<tr>
<th>SpecID</th>
<th>Analyte</th>
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</tr>
</thead>
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Using the MASTER Project to propagate your Policies to your future Projects

• MASTER is a project template that contains only Policies (no experiments).

• You cannot open, delete or rename your master project. You can only modify the policies within it (and backup / restore)

• When you create a new project, that new project is initialized to contain whatever Policies are in MASTER.
MASTER Project

– Created using Policy Definitions
– Cannot be opened or viewed in the File Open menu
– Cannot be renamed, deleted,
– Contains no inventory
– Can be backed up and restored using the Utilities File Manager.
– New Projects inherit policy definitions from the “Master Project”
– Policy definitions from a current project can be copied to the Master project for future “new projects”
How to copy policies to the MASTER project

- Menu command RRE / Define Policies
- Select the Utilities button

- Policy Utilities shows
  - Left: active current project
  - Right: Master project contents

- On your active project policies area, highlight the policy you wish to copy
- Select radio button Copy
- The policy is copied to the Master project.
  - Same name classes get replaced
  - New classes get added
  - Existing policies in the master do not get deleted unless you select “delete”
Project Backups: A way to Share Data

- A EP Evaluator “project” contains all the data, policy definitions, experiments with data, and reports for a specific work assignment.

- Projects are portable only by using the backup function.

- To create a backup (archive) file for your project:
  - From the Main Statistical Module screen
  - Open Utilities\file Manager
  - Select the Project Name in the top half of the screen
  - Click on Backup to create a zipped file archived to date and time.
    - Default folder is c:\EE\data\backups
    - Can “copy to” any folder or travel drive. Email to your colleagues.

- Restore when needed, or in EP Evaluator on another computer.
Distributing Your Policies to Other EE Users

Your Computer

MASTER Project

Backup File

CD

DATA INNOVATIONS
Simple ideas, Better Solutions
Exercise

• Delete all policies from your MASTER
• Copy the Example instrument class to MASTER
• Create a new project
• What policies does the new project have?
For EE Support

• North America Telephone Support  (802)-658-1955
  – Northamerica-support@datainnovations.com

• Europe telephone support  +32 2 332 24 13
  – Europe-support@datainnovations.com

• Asia Telephone Support  852-2398-3182
  – asia-support@datainnovations.com

• Latin America telephone support  55-11-38013283
  – latinamerica-support@datainnovations.com
Additional Training & Services

• Visit the DI website for information on free training. [http://datainnovations.com/services/training/ep-evaluator-training-programs](http://datainnovations.com/services/training/ep-evaluator-training-programs)
  – Overview and Getting Started with EP Evaluator
  – Project Management
  – RRE and Policy Definitions
  – Hematology Method Comparison
  – Determining Performance standards
  – Inventory Management

• For more in-depth training or consultation
  – Contact the DI Sales organization for a quote
    ▪ 802-658-2050
    ▪ Northamerica-sales@datainnovations.com
Thank You!