



# Middleware

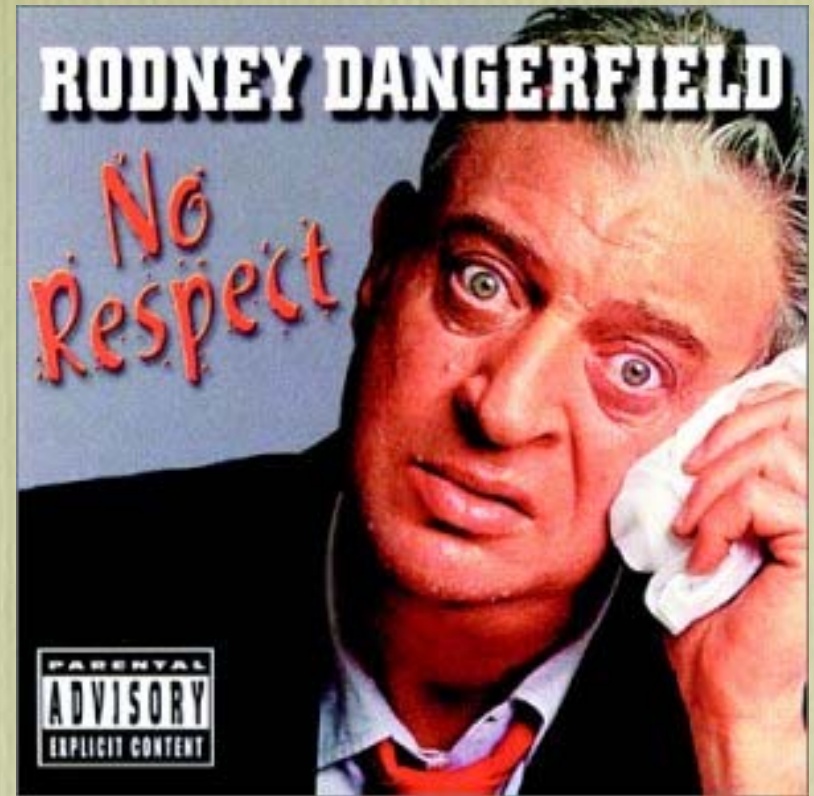
**OrchardSoftware**



*Harvest the Power*

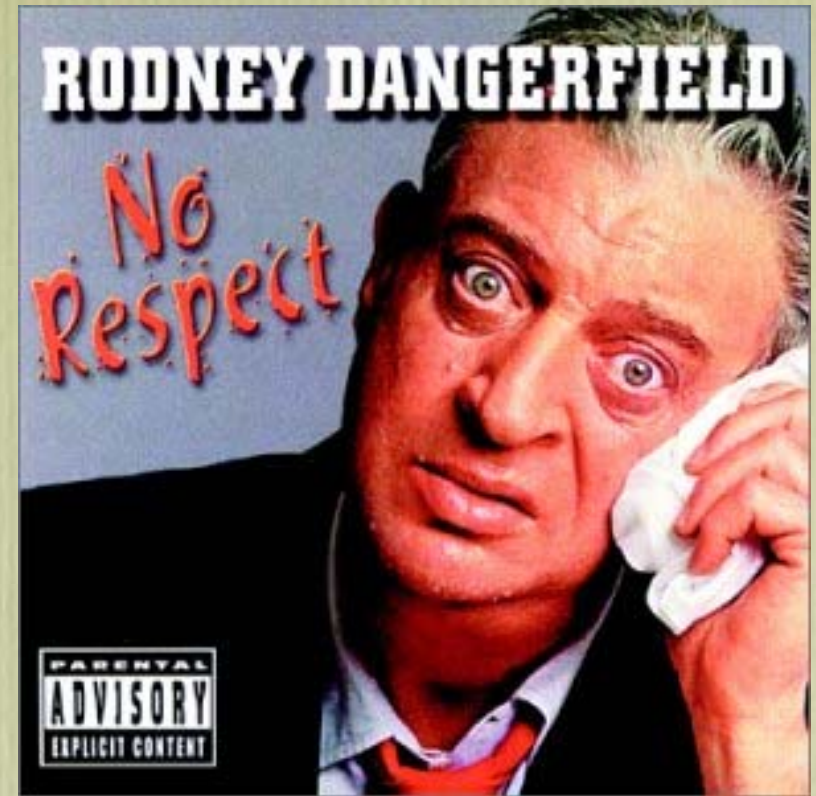
Rob Bush, President

# MiddleWare Misconceptions



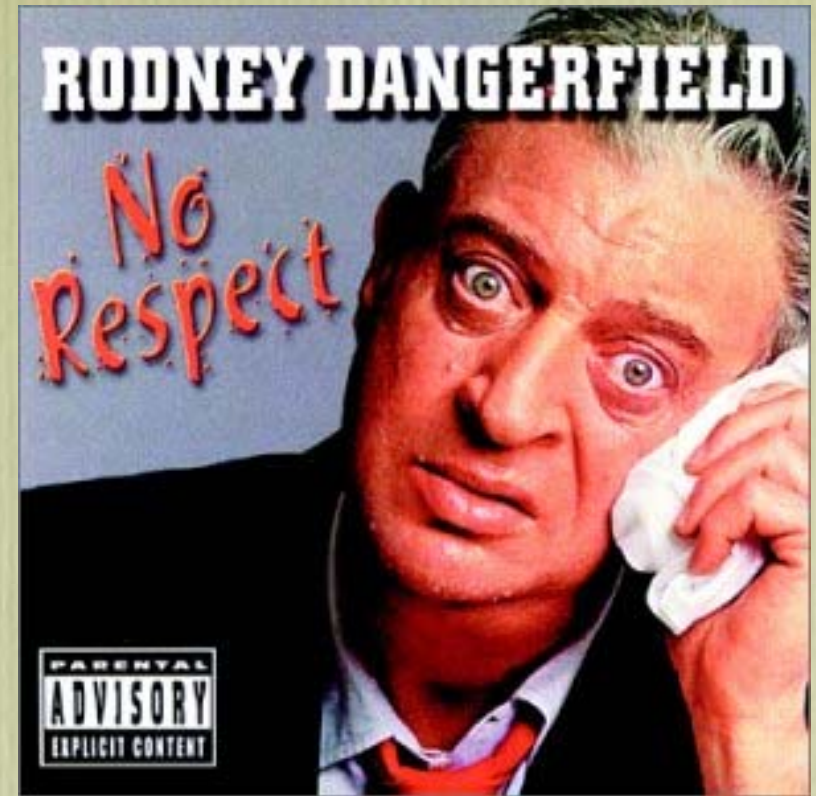
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- LIS vendors are not keeping up with change
- Somebody just wants to sell me something I don't need. Functionality is irrelevant.

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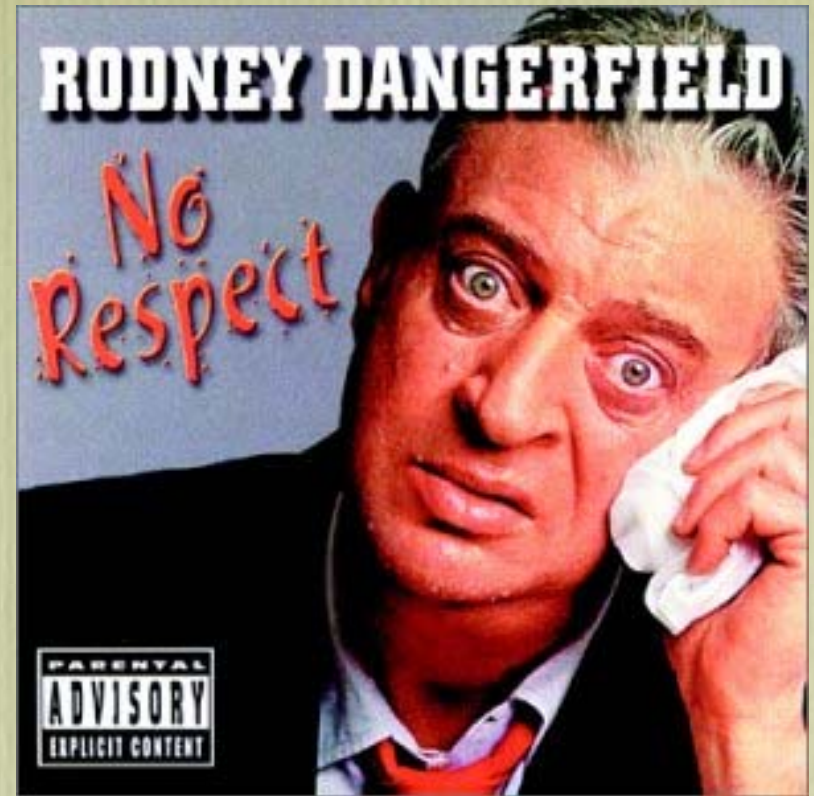
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# Middleware Truths

- Middleware serves a very specific need that isn't being met, usually vendor and instrument specific.
- LIS vendors *shouldn't* want to write it.
- The middleware market is here to stay, will grow much larger (and be accepted).



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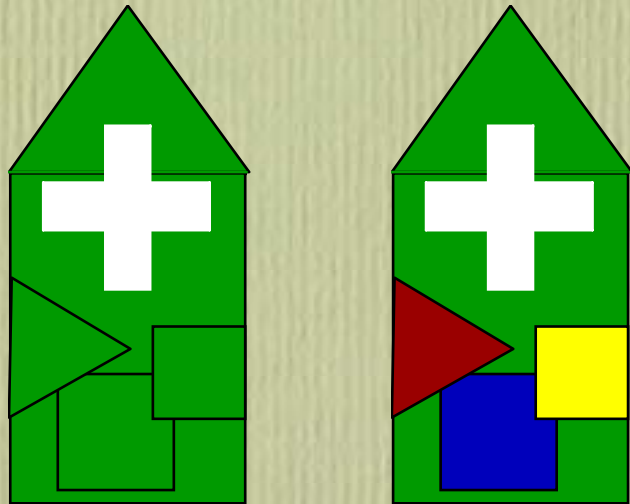




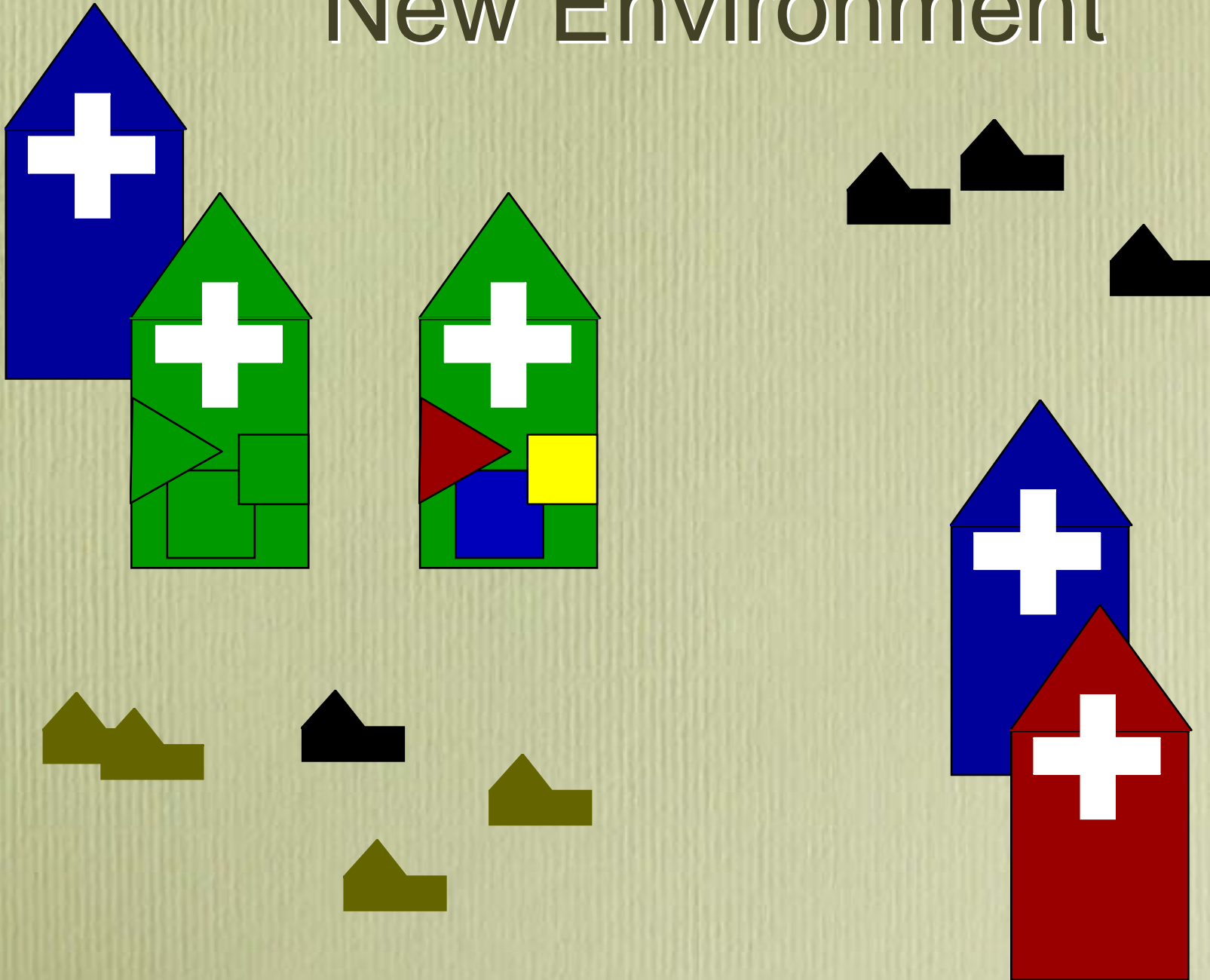
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# Integrated vs. Best of Breed

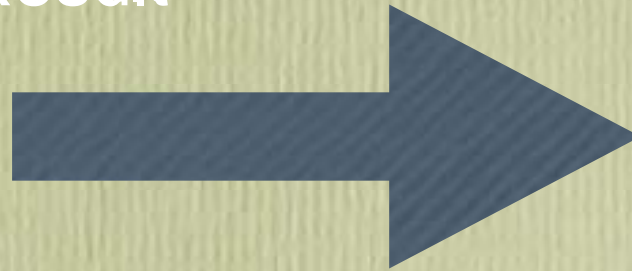


# New Environment



# New Tools - New Challenges

Patient ID  
Test Result

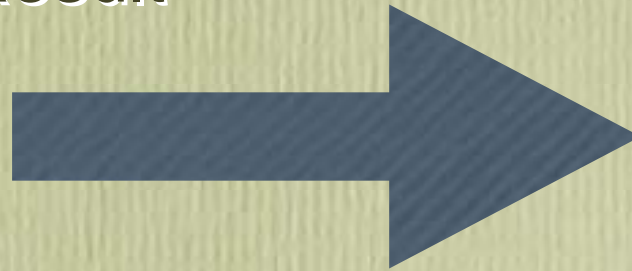


Billing ?  
Result Delivery ?  
Other tests ?  
Fasting ?

Instrument Management

# New Tools - New Challenges

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Test Result

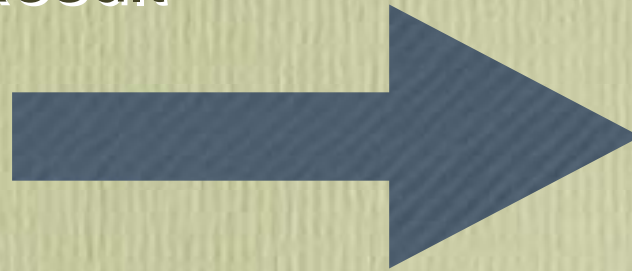


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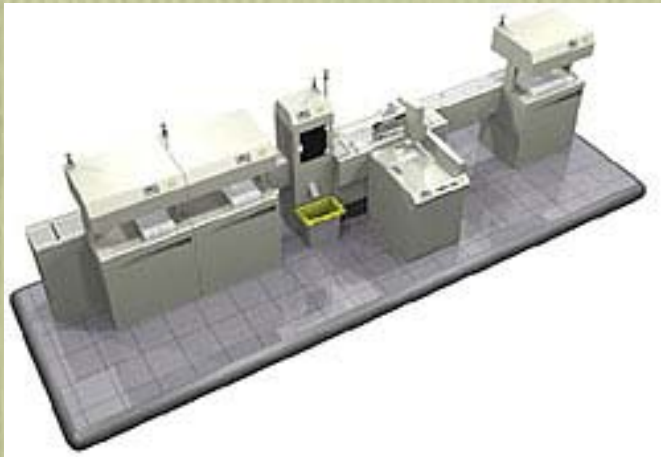
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Billing ?  
Result Delivery ?  
Other tests ?  
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Instrument Management

# New Tools - New Challenges



Automation Line



Instrument/Department  
Coordination



Patient **Ingles, Lauren**

SID **30008**

Location **Orchard Main Lab**

[Patient's Previous Results](#)

Review Tech **Orchard**

PID **3256473**

Provider **Rogers, Craig**

WBC **23.6 \*H**

NE % **74.7 H**      NE # **17.7 R H**

LY % **19.5 L**      LY # **4.6 R H**

MO % **2.4**      MO # **0.6 R**

EO % **1.5**      EO # **0.4 R**

BA % **1.9**      BA # **0.5 R H**

RBC **5.12**

HGB **18.9 H**

HCT **54.9 H**

MCV **107.2 H**

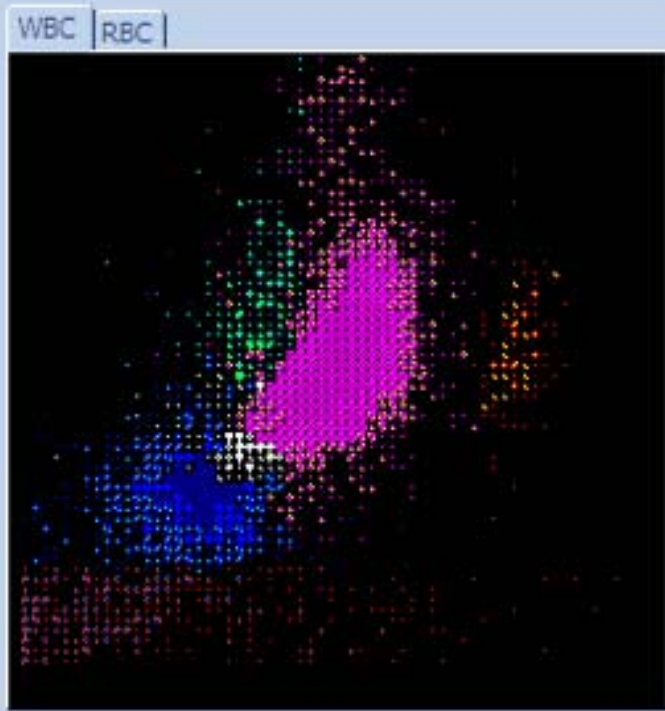
MCH **37.0 H**

MCHC **34.5**

RDW **17.7 H**

PLT **205**

MPV **8.1**



Suspect/Definitive/Conditional Flags

Ne Blasts

WBC Interference

Sample Not Validated

Suggested Action

Verify specimen integrity. Rerun. Perform manual differential.

Panels in Order **CBC with Differential (Approved)**

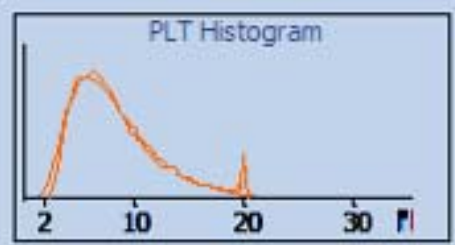
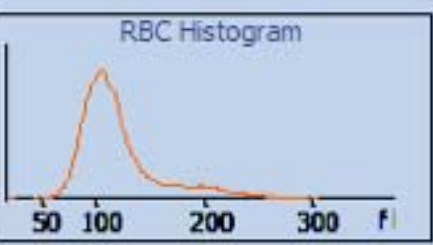
Approved **8/24/2000 5:18 PM TR**

Cass/Pos **000000**

Date/Time **8/24/2000 2:39 PM**

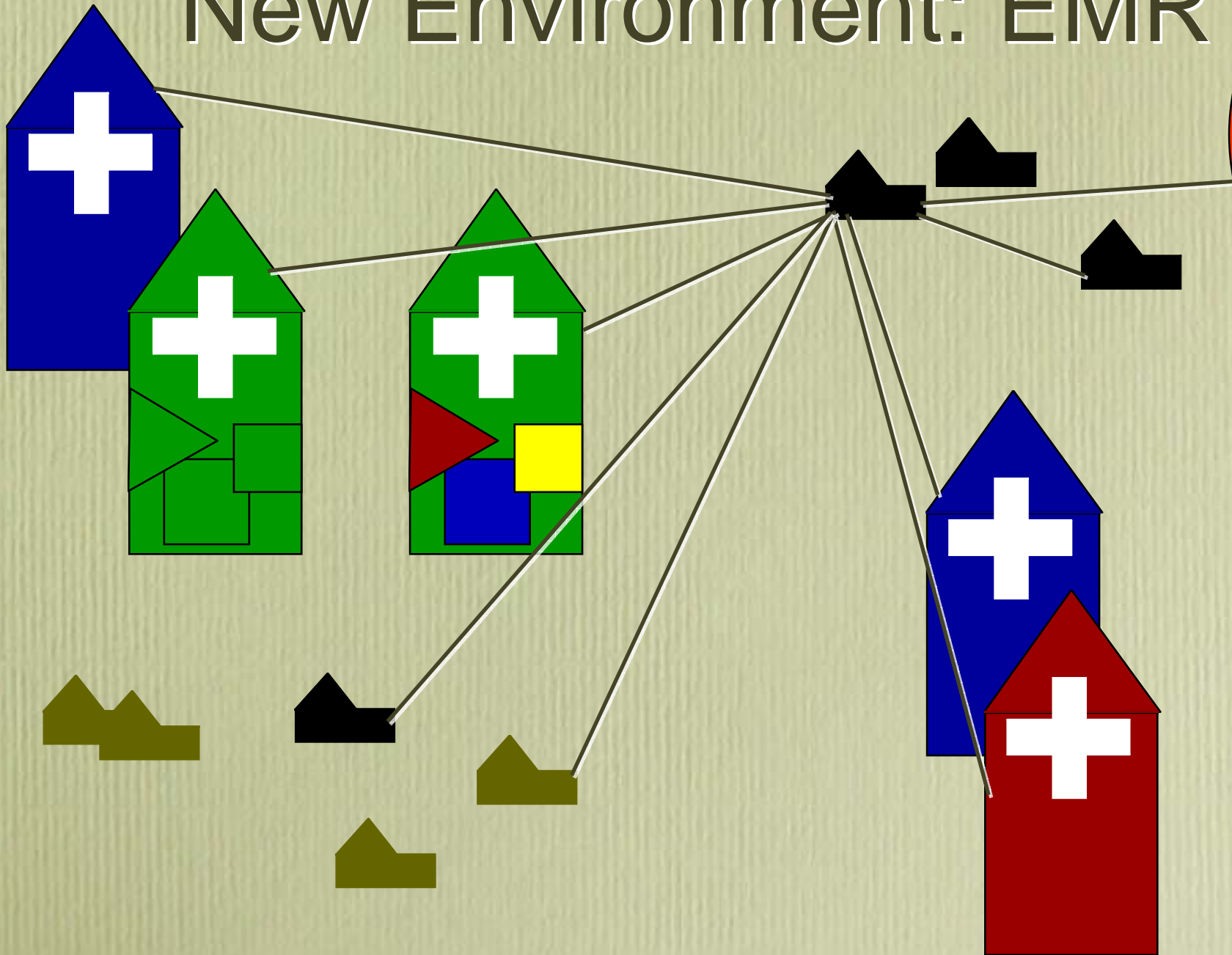
Aspiration Mode **Manual**

Instrument

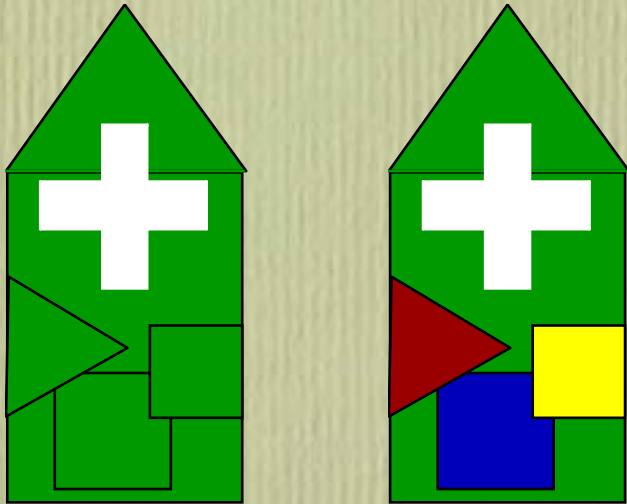




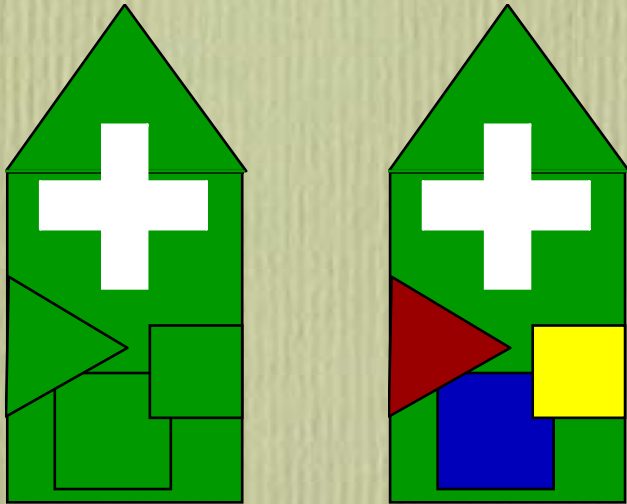
# New Environment: EMR



# New Environment

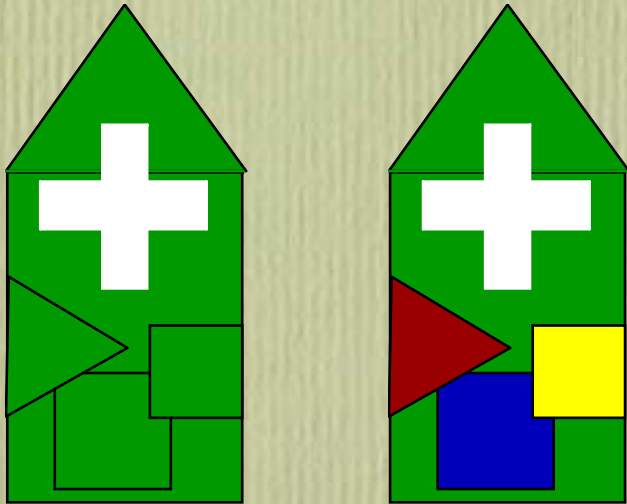


# New Environment



POC / Handheld  
Department Systems  
Automation Systems  
Web Outreach  
EMR / CPR Integration  
Billing

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**Middleware** is both a short-term patch  
*and* a long-term solution!



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