Lesson Title: RFID Middleware

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Rationale
Why is this lesson important? Why does the student need this lesson? How does this lesson fit in the larger module?

RFID middleware is software that connects readers to a software application. It often filters and formats the data from the tag for use by the application. The student needs this lesson to understand how the tag data is presented to a software application for further analysis.

Objective(s)
What will the student know, be able to do, and value at the end of this lesson? This is smaller amounts of information than the module objectives.

The student will be able to define middleware, describe what RFID middleware does to the tag data before sending it to an ERP system, and describe the advantages of using RFID middleware.

Exploration
Explicit concepts related to the Module goal are explored. It is at this point that the student will be provided basic information about the topic and the chance to explore some basic concepts about the topic. This is where the instructor imparts information.

- Define middleware
- Describe the raw tag data that the reader can send to a software application
- Enterprise Resource Planning (ERP) Systems
- Filtering and formatting
- Readers with middleware
- Appliances
- TagCentric

Reflection
Several questions are posed to the student to answer and then often discuss as a class. This is an attempt to determine whether the student "gets" the basic concepts delivered above. If they do get it, move on to engagement. If they do not get it, go back to exploration above. It could be as simple as asking a few probing questions or as complex as asking the student to write a paper.

- What is middleware?
- What is an ERP system?

Engagement
Concepts learned in the Exploration are further developed by conducting experiments, designing and building solutions, and solving problems. This is an attempt to cause the student to apply the new knowledge. By applying the new knowledge, the student is much more likely to retain this information. This engagement could be accomplished through a debate, an experiment, a problem solving activity, or anything else that would cause the student to demonstrate understanding and competence.
Homework assignment

Expansion

Provide opportunities for students to expand the concepts to more general or global situations including connection to the Module goal. Expand back to the big ideas of the module and prepare for the next lesson.

- Why do readers and/or middleware need to filter the data?

Lesson Assessment

Assess student understanding of the lesson content. This does not have to be a full-blown examination. It could be a graded homework assignment, a quiz, a performance examination, a graded problem solving activity, or something similar.

- Homework assignment

Equipment

- None

Software

- None

References

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