# Overview:
Describe overview, features and descriptions, uses, and applications. Include cost, if any for age.

The chapter introduces the concept of state diagrams and how they play a part in PLC programming. Many of the more complicated problems in control involve state diagrams.

This chapter is about state diagrams and their little cousin, the sequencer. Both of these tools are useful in programming difficult machine operations and allow the programmer to walk away after an installation with the satisfaction that the operation of the machine has been developed logically and the maintenance of the machine will be easier than if developed otherwise.

Accompanying Video:
PLC Series Chapter 11 - Use of State Diagrams (1:26:41)

Hybrid Lab Text:
Ch. 11 – Pumps with Floating Master
(see Additional Public Access to Materials below)

## Evaluation and Observations:
After reviewing the learning material, please indicate your agreement with the following statements by utilizing the scoring scale: 4=Strongly Agree; 3=Agree; 2=Disagree; 1=Strongly Disagree; and N/A=Not Applicable.

<table>
<thead>
<tr>
<th>#1 Quality of Content – The Learning Material...</th>
<th>Strongly Agree: 4</th>
<th>Agree: 3</th>
<th>Disagree: 2</th>
<th>Strongly Disagree: 1</th>
<th>N/A: 0</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>...is clear and concise</td>
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<tr>
<td>...provides a complete demonstration of the concept</td>
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<tr>
<td>...demonstrates a core concept grounded in the discipline</td>
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<tr>
<td>...is current and relevant</td>
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<td>...is supported by appropriate research</td>
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<tr>
<td>...is self-contained (can be used without requiring an assignment or context)</td>
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<tr>
<td>...provides accurate information</td>
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<tr>
<td>...is flexible (can be used in several situations)</td>
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<td>...includes an adequate amount of material</td>
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<tr>
<td>...has strong workplace relevance</td>
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<tr>
<td>...integrates the concept well</td>
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<tr>
<td>Overall, the quality of the content is very high</td>
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</tr>
<tr>
<td>Total: #1 Quality of Content</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>41</td>
</tr>
</tbody>
</table>

## Technical requirements:
Browser, software or plugin, Java, HTML, Flash, etc. You can test how it appears at http://ipinfo.info/netrenderer/

Note type of device if it is an app (iPad, Android, phone, etc.)

## Additional Public Access to Materials:
- Online Course Module
- Ch. 11 – Pumps with Floating Master

## Type of material:
Animation, assessment tool, assignment, case study, collective development tool, drill and practice, e-portfolios, learning objects (standalone), online course, open journal article, open textbook, presentation, reference materials, reference collection, social networking tool, quiz/test, tutorial, workshop and training material.

**Identify major learning goals/curriculum objectives:**
- Location of site, goal for learner/user.
- Recommended uses: In class, homework, individual, team, lecture, etc.
- Target population: Level, course or subject matter, other level groups.
- Prerequisite knowledge or skills needed: Course or subject matter, computer skills, other prerequisites.
- Applicability to industry recognized certifications: Name of certification or certificate.

## Prerequisite knowledge or skills needed:
Course or subject matter, computer skills, other miscellaneous skills.

## Application to industry recognized certifications:
Name of credential or certification.

## Recommended uses:
In-class, homework, individual, team, lecture, etc.

## Target population:
Level, course or subject matter, other level groups.

## Prerequisite knowledge or skills needed:
Course or subject matter, computer skills, other prerequisites.

## Applicability to industry recognized certifications:
Name of certification or certificate.
### #2 Potential Effectiveness as a Teaching Tool/This Learning Material

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>N/A</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>

- Identifies learning objectives
- Identifies prerequisite knowledge
- Reinforces concepts progressively
- Models or prior concepts
- Demonstrates relationships between concepts
- Is easy to integrate into curriculum assignments
- Is very efficient (could learn a lot in a short time)
- Can be used to measure student learning outcomes

Overall, learning material is a very effective teaching tool.

Total: #2 Effectiveness as Teaching Tool 35

### #3 Ease of Use – This Learning Material

<table>
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</tr>
</tbody>
</table>

- Is easy to use
- Has very clear instructions
- Is engaging
- Is visually appealing
- Is interactive
- Is of high design quality
- Meets accessibility requirements if able to assess
- If an app, can be used on multiple types of mobile devices and platforms

Total: #3 Ease of Use 31

Combined TOTAL scores (add together the totals as indicated above for #1, #2, #3) 113

### Optional Information:

- Other comments to be included in the review (If an app, respects privacy of user; meets rating standards; how frequently app is updated; comments to solve why any related requirements or recommendations should be addressed here.)

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