

The Decreasing-Time Algorithm

Lecture 35
Sections 8.4

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1 The Decreasing-Time Algorithm

2 Assignment

1 The Decreasing-Time Algorithm

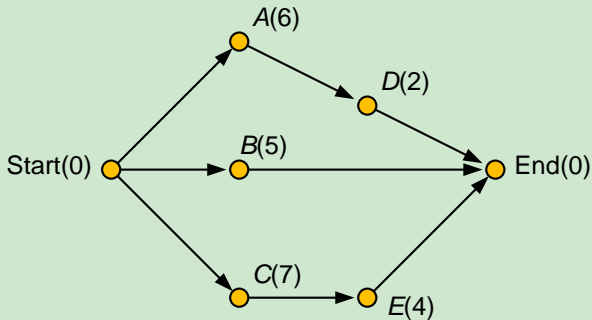
2 Assignment

The Decreasing-Time Algorithm

Definition (The Decreasing-Time Algorithm)

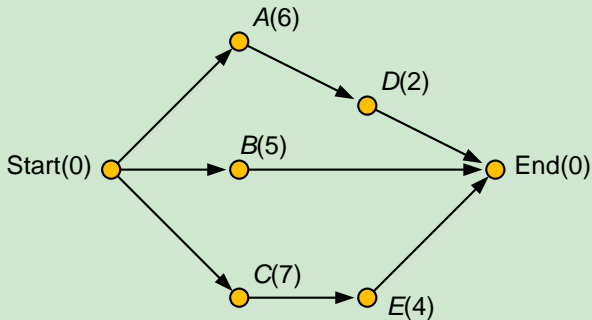
The **decreasing-time algorithm** creates a priority list in which the tasks are arranged in order of decreasing time. It then proceeds as before.

Example (The Decreasing-Time Algorithm)



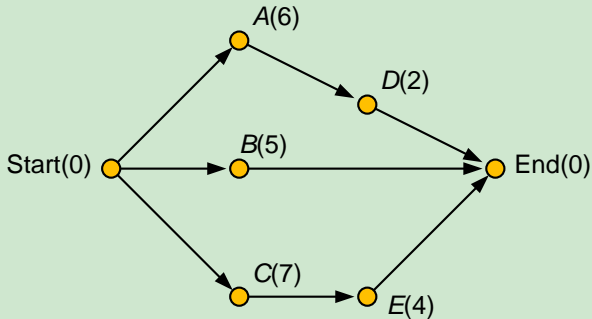
- Apply the decreasing-time algorithm with 2 processors.

Example (The Decreasing-Time Algorithm)



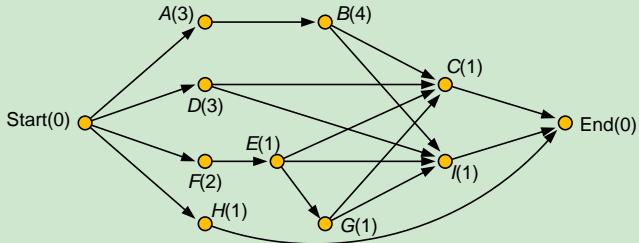
- Apply the decreasing-time algorithm with 2 processors.
- Apply it with 3 processors.

Example (The Decreasing-Time Algorithm)



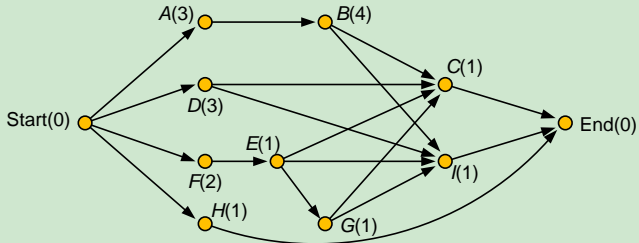
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- Apply it with 3 processors.
- Would it help to have 4 processors?

Example (The Decreasing-Time Algorithm)



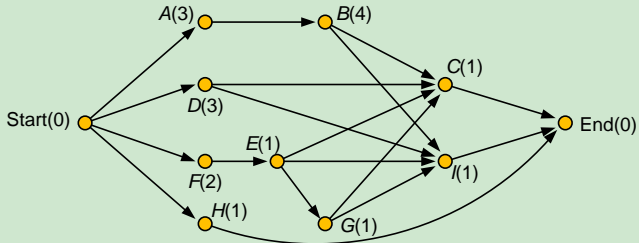
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Example (The Decreasing-Time Algorithm)



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Task	Label	Prec. Tasks
Set up tables and chairs	<i>TC</i> (1.5)	
Set tablecloths and napkins	<i>TN</i> (0.5)	<i>TC</i>
Make flower arrangements	<i>FA</i> (2.2)	
Unpack crystal, china, etc.	<i>CC</i> (1.2)	
Put place settings on table	<i>PS</i> (1.8)	<i>TN, CC</i>
Arrange table decorations	<i>TD</i> (0.7)	<i>FA, PS</i>
Set up the sound system	<i>SS</i> (1.4)	
Set up the bar	<i>SB</i> (0.8)	<i>TC</i>

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2 Assignment

Assignment

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- Chapter 8: Exercises 41, 42, 43, 44, 47 (8th ed.).
- Chapter 8: Exercises 43, 44, 45, 46, 49 (98th ed.).