

**Farm it  
FORWARD**



# *The Critical Path*

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MICHIGAN STATE  
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**Michigan Food &  
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Bringing Farmers & Communities Together

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# *The Critical Path Method*

- ◆ Identification of necessary resources
  - ◆ Effective method of analyzing a complex project
  - ◆ Calculates the minimum time for completion
  - ◆ Prioritizes activities to be completed by that date
  - ◆ Effective scheduling and monitoring of progress
  - ◆ Focuses on the essential activities
  - ◆ Provides a graphic view of the plan
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# Activities

- ◆ **Sequential activities:** activities that are dependent on other activities being first completed.
- ◆ Sequential Activities must be completed in an ordered sequence.
- ◆ Each activity in the sequence must be completed, or near completion, prior to the start of the next activity in the sequence.
- ◆ **EXAMPLE:**  
*A foundation must be built before walls can be erected.*
- ◆ **Parallel activities:** activities that are not dependent on the completion of a previous activity or activities.
- ◆ **EXAMPLE:**  
*Selection of the paint color for the kitchen walls.*

# *Estimating Time*

- ◆ Difficult to estimate the length of time that an activity will take
- ◆ Particularly true if it is a new activity
- ◆ Normal to underestimate the time need to complete and activity
- ◆ High priority activities must be carried before immediate activities
- ◆ Unexpected or unscheduled high priority work that is forgotten
- ◆ Accidents and/or emergencies
- ◆ Meetings
- ◆ Holidays and sickness
- ◆ Break downs in equipment
- ◆ Delays and Interruptions
- ◆ Rejections due to quality or quantity
- ◆ Etc. (*If it can, it will and it will at the most inconvenient time.*)
  
- ◆ *Develop a systematic approach to include these factors*
- ◆ *Rely on your experience*

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# Methodology

## List all activities in plan

List the earliest practical start date; estimate length of time to completion; if the activity is parallel or sequential; how to measure the activity; who is responsible for the activity; and how and to whom the activity will be reported.

The context of the activity determines if it is parallel or sequential.

Activity \_\_\_\_\_

Start week \_\_\_\_\_

Number of days to completion \_\_\_\_\_

Sequential & dependent upon \_\_\_\_\_

Parallel \_\_\_\_\_

How will the activity be measured? \_\_\_\_\_

Who is responsible for the activity? \_\_\_\_\_

How and to whom with progress be reported? \_\_\_\_\_

*List all the activities need to complete the plan*

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***Caption graph paper with  
the time periods needed to  
complete the plan***

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## ***Copy activities in the appropriate time period***

- ◆ **Begin with the activities with the earliest start dates**
  - ◆ **Show the activities as arrows the end with a box**
  - ◆ **Show the time taken to complete the activity above each arrow**
  - ◆ **Show whether the activity is sequential or parallel**
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# *Schedule Activities*

- ◆ **Schedule activities so that sequential activities are carried out in the proper sequence**
- ◆ **Scheduled parallel activities so as not to interfere with sequential activities**
- ◆ **Allow for the unexpected**

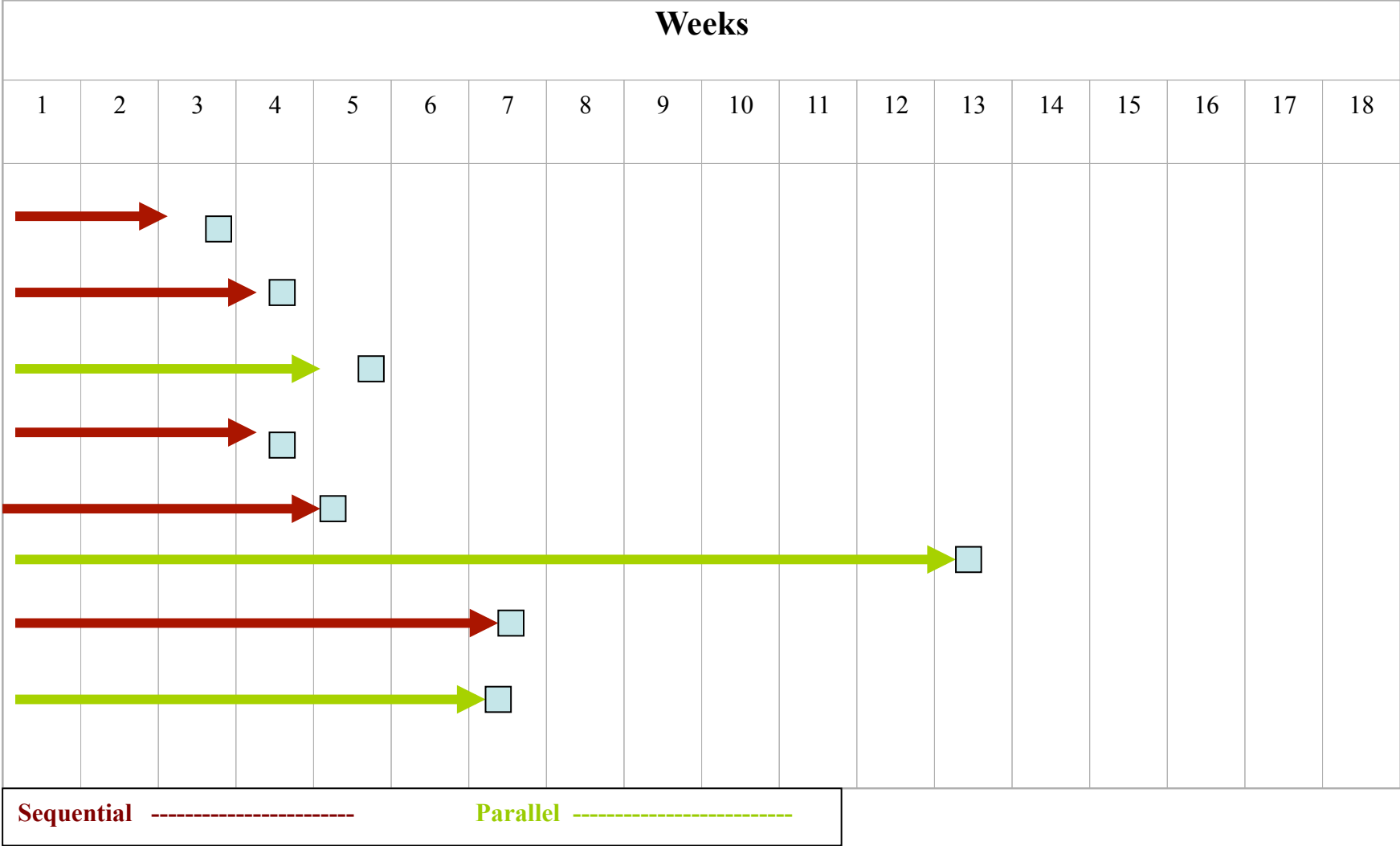


## ***Prepare a clean final copy of the analysis***

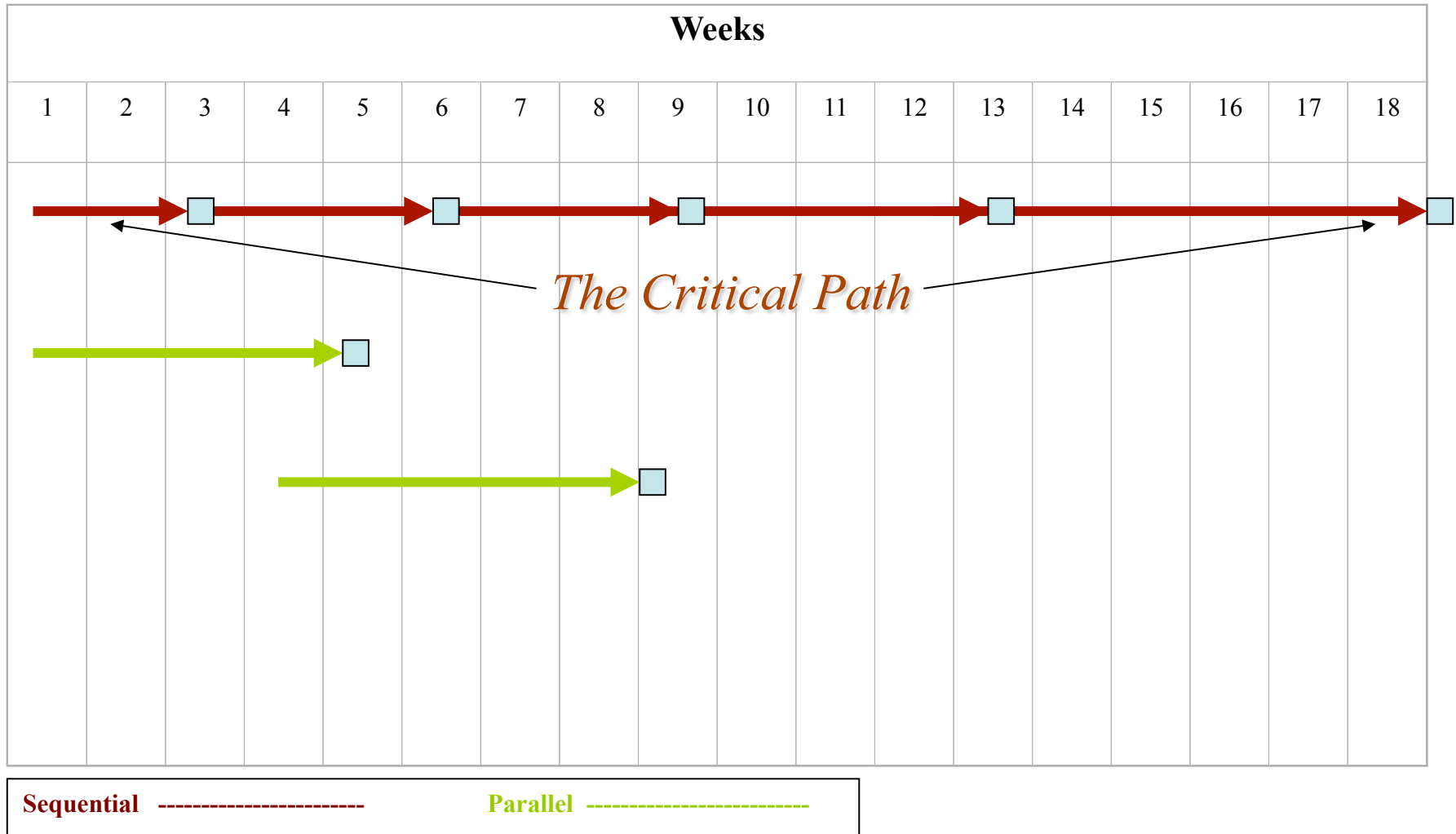
- ◆ **Time is marked out in columns across the chart**
- ◆ **Activities are represented as arrows terminating at boxes**
- ◆ **The length and positions of the arrows show the start date and duration of the activity**

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- ◆ The *Critical Path* is the longest sequence of sequential activities leading to the completion of the plan.
  - ◆ Any delay of in the commencement or completion of an activity on the critical path will delay the completion of the whole plan.
  - ◆ The time allowed for future sequential activities will need to be shortened.
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# Critical Path Method Chart



# Critical Path Method Chart



# Great Resource

**AgTransitions** helps farmers & ranchers develop a plan to transition their business to the next generation.

- **Develop** your own transition plan
- **Learn** what you need to include in your plan with Tips & Resources
- **Stimulate** multi-generational discussions
- **Share** your plan with family members and your transition team
- **Interact** with Reviewers — your business advisors, educators, or consultants — for feedback and assistance

<https://www.agtransitions.umn.edu/>



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Providing such programs as Farm it  
FORWARD Seminar, educational materials,  
and individual consultation...

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