GET STARTED WITH LYNX

Understanding Project Statistics

Topics

- Example Project
- Statistics – Not started Mode
- Statistics – Released Mode
  - Project Buffer Statistics
  - Controlling Buffer Statistics (Milestone Buffer)
  - Project and Project Portfolio Statistics
    - Milestone Buffers
    - Project Buffers
- Expected Finish Calculation
- Measuring Progress
  - Current Longest Chain (clc) and Critical Chain (cc)
- Gaps on the Current Longest Chain

Example Project
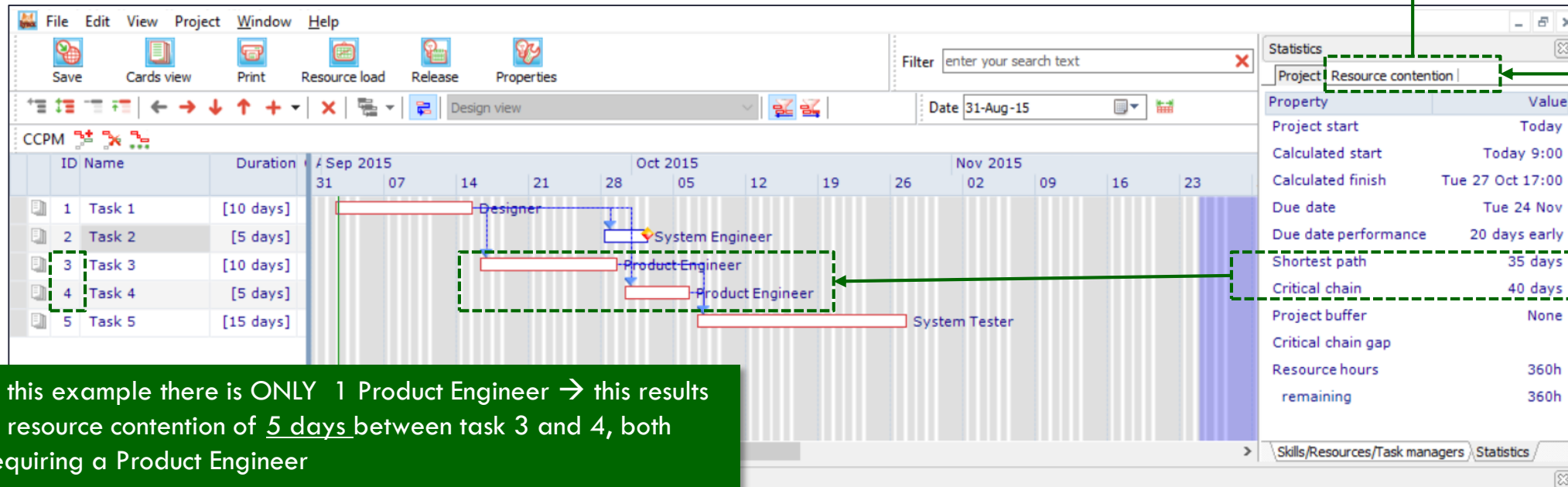## *Project status = "Not started"*

Statistics – Not Started Mode

Critical Chain and Shortest Path
Statistics → Resource Contention

This window shows the task(s) with resource contention

Statistics

Project	Resource contention
Task	Resource/Skill
3	S: Product Engineer [5 days]

In this example there is ONLY 1 Product Engineer → this results in resource contention of 5 days between task 3 and 4, both requiring a Product Engineer

Shortest Path is 35 days   *Critical Chain is 40 days (including the 5 days resource contention)*

If there is "Resource Contention" it means that the project can be made faster if more resources (e.g. 2 Product Engineers) would be available.

A-dato

Adding buffers via CCPM Property Box
Milestone Buffer and Project Buffer

Statistics – Released Mode

Project and Project Portfolio Statistics

Project Status now set to "Released"
Additional information is added to "Statistics"

Project properties

Some fields cannot be changed because this project has been released

General | Custom fields | Project dates | Stages | Scheduling | Resource availability | Critical chain

Critical Chain Project Management
Configure CCPM schedule parameters

☑ Automatically detect and mark critical chain
☐ Automatically shorten task durations
Shorten durations by (%) 0

Buffer creation

☑ Consume feeding buffers when they extend
Insert feeding buffer(s) (%) 50
Insert project buffer (%) 50   Insert buffers

Project execution

Expected buffer consumption (%) 100

☐ Save project as a template   OK   Cancel

Expected Buffer Consumption % gives a forecast of the Expected Finish Date.

A percentage of 100 % assumes 100 % of the buffer will be consumed, which is 20 days after the calculated finish date → Tue 24 November 17.00

Save | Cards view | Print | Resource load | Properties

Filter enter yo...

Schedule view   Date 31-Au

Tags 0 - Thu 27 Aug 11:10

ID	Name	Buffers
1	Task 1	0% 0% n/a
2	Task 2	0% 0% n/a
3	Milestone buffer	n/a 0% n/a
4	Task 3	0% n/a n/a
5	Task 4	0% n/a n/a
6	Task 5	0% n/a n/a

Sep 2015 ... Oct 2015 ...
Designer — System Engineer — 0% — Product Engineer — Product Engineer — System Tester — 0%

	Value
	Today 9:00
	7:00
	Nov
Due date performance	20 days early
Shortest path	35 days
Expected finish	Tue 24 Nov 17:00
Critical chain	40 days
Project buffer	20 days
Current longest chain	40 days
Longest chain compl.	0%
Curr. longest chain gap	
Controlling buffer	Milestone buffer
Buffer consumed	0%
Feeding chain	15 days
Feeding chain compl.	0%
Resource hours	360h
remaining	360h

Skills/Resources/Task managers \ Statistics

The "Milestone Buffer" is considered as the **Controlling Buffer**. LYNX displays the characteristics of this buffer and its feeding chain duration (15 days).

Only a Milestone Buffer or a Project Buffer can be a "Controlling Buffer". (Feeding buffers are excluded)

After release, LYNX starts tracking the Current Longest Chain. Initially the Current Longest Chain is equal to the Critical Chain.

A-dato

Controlling Buffer Information in Project View
= "Earliest Buffer" in Portfolio view

LYNX communicates all key information for the Controlling buffer here.

LYNX considers the "Controlling Buffer" as the "*Earliest Buffer*" in the Portfolio View Project List

Understanding Project Portfolio Statistics
Milestone Buffer Indicators

Milestone Longest Chain (mlc)

Milestone Critical Chain (mc)

Milestone Buffer Penetration (mpb)

Milestone Buffer (mb)

Current definition of "Controlling Buffer"
Controlling Buffer is Buffer with "Earliest Due Date"

Definition: the Earliest Buffer → Controlling Buffer.
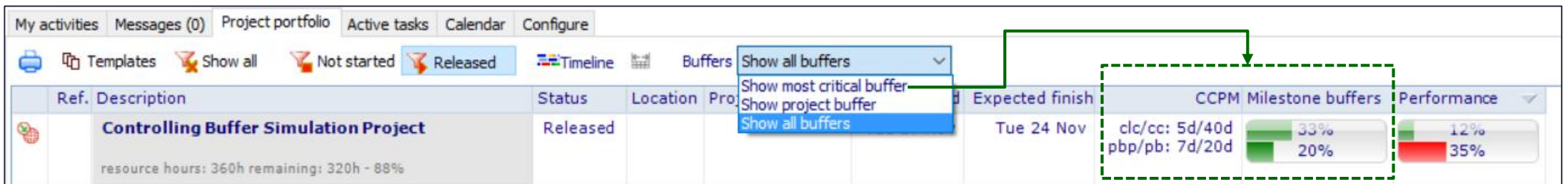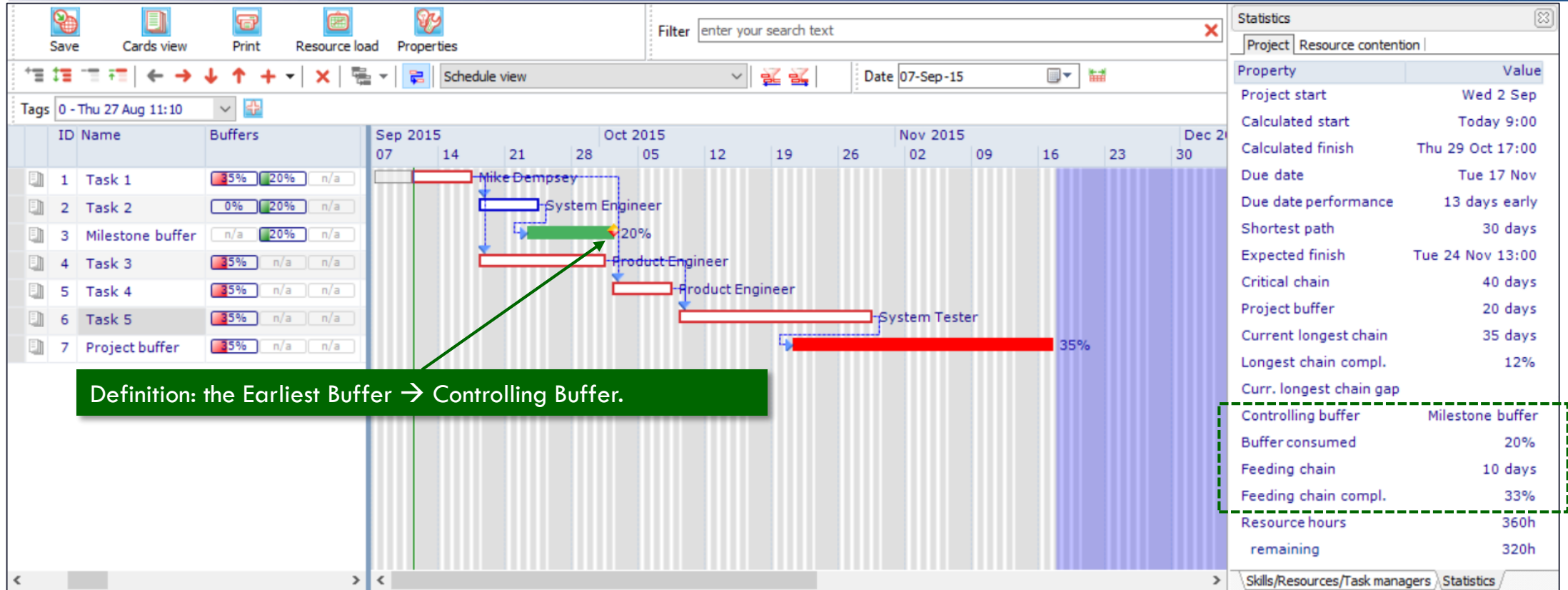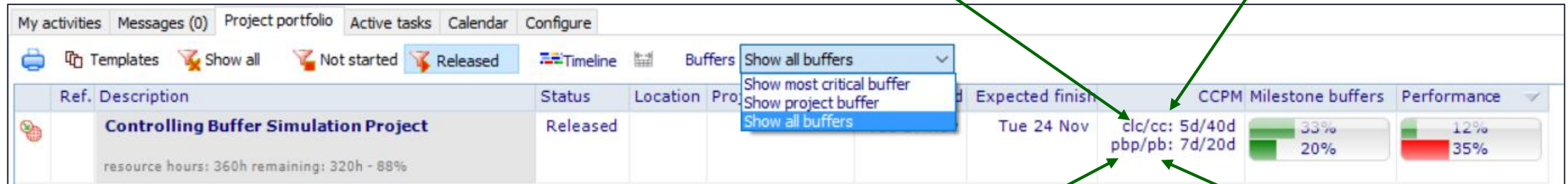
Understanding Project Portfolio Statistics
Project Buffer Indicators

Current Longest Chain (clc)

Critical Chain (cc)

Project Buffer Penetration (pbp)

Project Buffer (pb)

Expected Finish Calculation

Expected Finish Formula (1)
Calculated Finish + CLC (current longest chain)/CC*buffersize* % Expected Buffer consumption

29 October 17.00 + (35/40*20*100% = 17,5 days)

29 October 17.00 + (35/40*20*50% = 8,75 days)

Expected Finish Formula (2)

29 October 17.00 + (35/40*20*100% = 17,5 days) = 24 November

| | My activities | Messages (0) | Project portfolio | Active tasks | Calendar | Configure | | | | | |

Templates Show all Not started Released Timeline Buffers Show most critical buffer

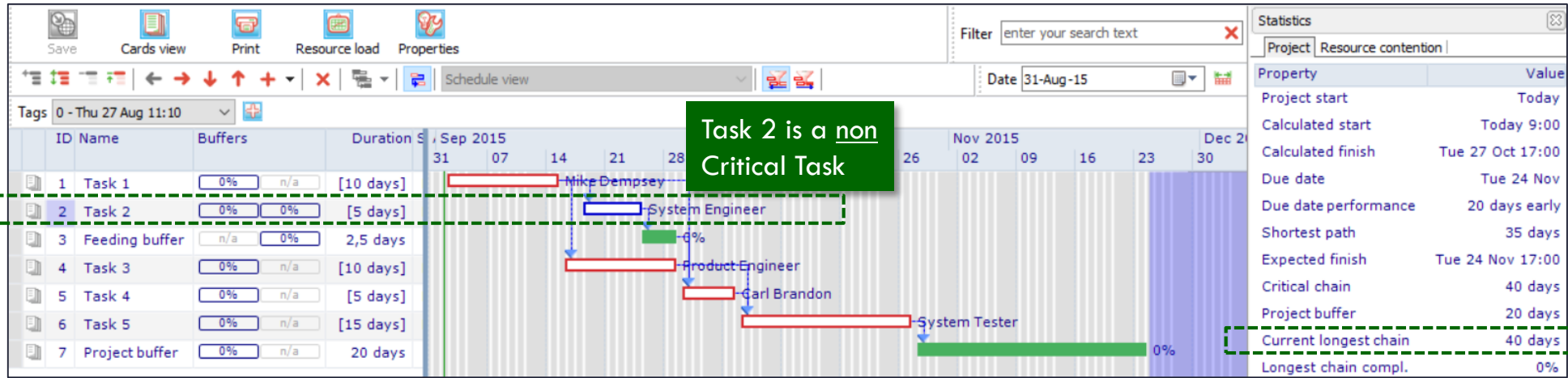| Ref. Description	Status	Project start date	End	Expected finish	CCPM	Performance
Controlling Buffer Simulation Project resource hours: 360h remaining: 320h - 88%	Released		Tue 24 Nov	Tue 24 Nov	mlc/mc: 5d/15d mbp/mb: 1,6d/8d	33% 20%

29 October 17.00 + (35/40*20*50% = 8,75 days) = 11 November

| | My activities | Messages (0) | Project portfolio | Active tasks | Calendar | Configure | | | | | |

Templates Show all Not started Released Timeline Buffers Show most critical buffer

Ref. Description	Status	Project start date	End	Expected finish	CCPM	Performance
Controlling Buffer Simulation Project resource hours: 360h remaining: 320h - 88%	Released		Tue 24 Nov	Wed 11 Nov	mlc/mc: 5d/15d mbp/mb: 1,6d/8d	33% 20%

A-dato

Measuring Progress

Current Longest Chain (clc) compared to the original Critical Chain (cc)

Current Longest Chain (clc) and Critical Chain (cc) (1)
CLC is measuring the longest chain during execution phase

Task 2 is a non Critical Task

The CLC includes now task 2, for which the duration was increased to 12 days.

Task 2 has "overtaken" Task 3, and has become "Critical"
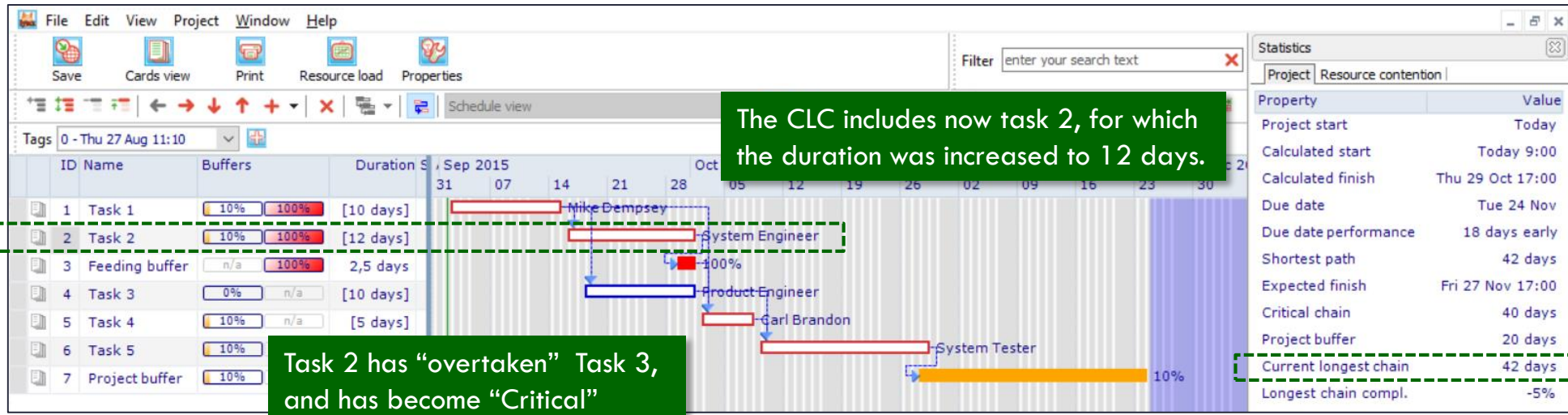
Current Longest Chain and Critical Chain (2)
Task 2 was not part of Critical Chain, but has become part of the Current Longest Chain

The "On current longest chain? box is checked for task 2.

The "Critical chain task?" box is not checked. Task 2 was not part of the original Critical Chain when the project was released.

Gaps

On the Current Longest Chain

Current Longest Chain Gap (1)
Caused by a "Constraint"

LYNX calculates and displays a "gap" to indicate that the project potentially can go faster

This constraint causes a "Gap" of 3 days, positioned after task 1

Current Longest Chain Gap (2)
Caused by a Resource Non-Availability period (Carl Brandon)
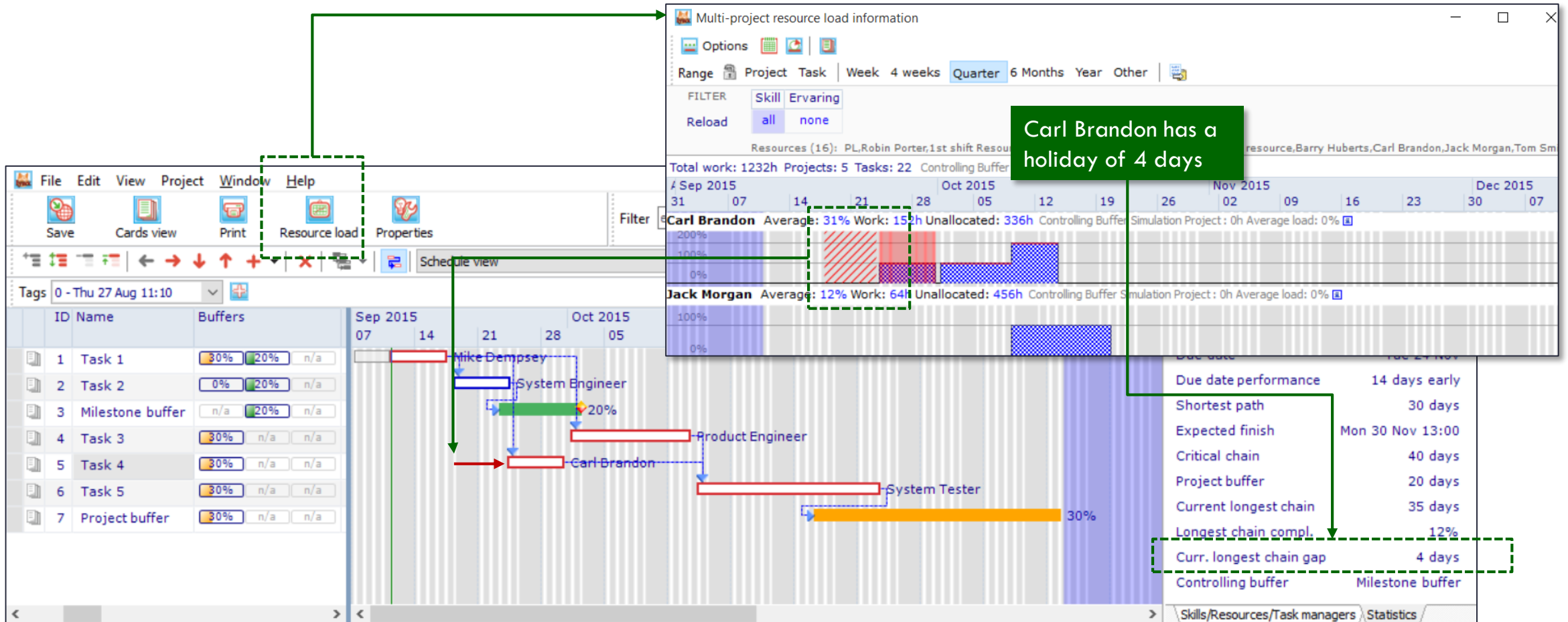
Critical Chain / Current Longest Chain Gap (3)
Result of inserting a buffer (e.g. feeding buffer) setting

In this example task 2 represents a feeding chain of 9 days, which is protected by a buffer of 4,5 days.

The feeding buffer is allowed to extend the duration of the Critical Chain

Other Statistics

Project start and Calculated Start

In this example the project is scheduled "Just in Time"

LYNX has calculated that the project only needs to start at 10 September to meet the Due-Date of 2 December.

There is no need to start earlier.

10 September

Via the project properties a start date can be selected: either a default "current date" or a particular date (fixed date)