Software that brings together the ideas and techniques of TameFlow Kanban and TameFlow Scrum, Agile/Scrum, Critical Chain Project management, TOC and LEAN in one integrated solution

TIME AND CALENDARS

Calendars, Workload, Time and Durations in LYNX





Topics

- Workload, Time and Duration definitions
- Working with "units" and workload calculations
 - ETTC and Workload Interpretation
- Special Calendars and Resource Selection
- Critical Chain Duration and Non-Working Periods





Workload, Time and Duration

LYNX Calendar System

Set-up of the calendar system

- Function of the Calendar:
 - Sets Opening Times:
 - Determines the default "opening times" :
 - Organisation
 - Department
 - Time that can be worked on a project
 - Typically the opening time is 8 hours a day
 - Exclusion of non working days, like public holidays
 - Sets Resource Availability:
 - Determines the availability of resources
 - Normal working times
 - Exclusion of non working days, like public holidays
 - Can take into account exceptions, like "Friday Free" or "Part-Time 50 %"
 - Typically the working hours are set to 8 hours per day

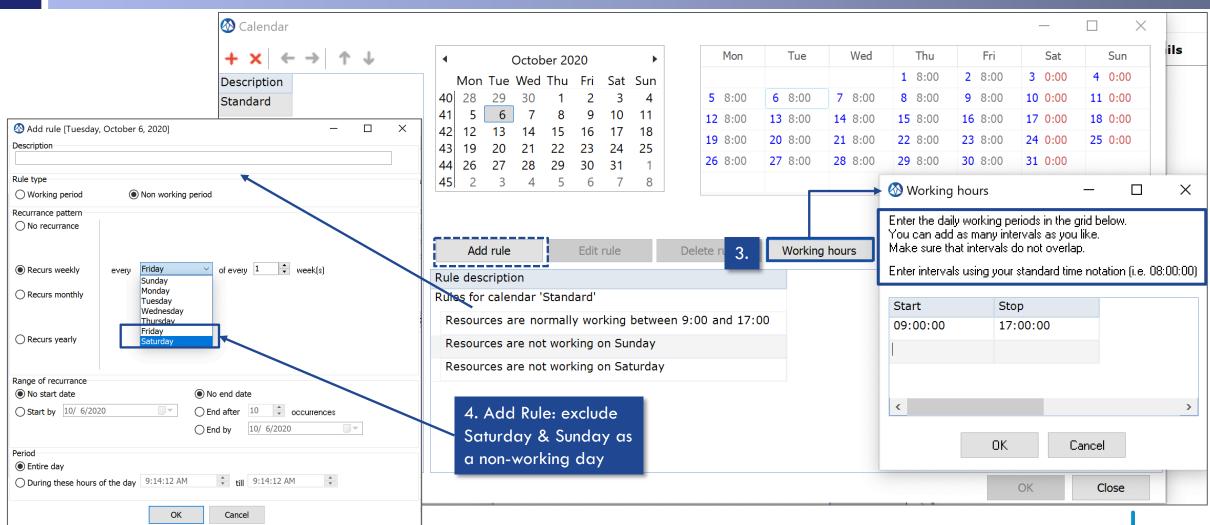


Add your Standard Calendar

5		🐼 Calendar						
		$+ \times \leftarrow \rightarrow \uparrow \downarrow$	 October 2020 	Mon	Tue	Wed Thu	Fri Sat	Sun
Select Configure		Description	Mon Tue Wed Thu Fri Sat Sun			1 8:00	2 8:00 3 0:00	4 0:00
		Standard	40 28 29 30 1 2 3 4 41 5 6 7 8 9 10 11	5 8:00		8:00 8 8:00	9 8:00 10 0:00	11 0:00
File Edit Tabs Configure Help			42 12 13 14 15 16 17 18	12 8:00 19 8:00		8:00 15 8:00 8:00 22 8:00	16 8:00 17 0:00 23 8:00 24 0:00	18 0:00 25 0:00
My activities Messages (0) Project portfolio Active tasks Assignments Rep	eporting		43 19 20 21 22 23 24 25 44 26 27 28 29 30 31 1	26 8:00		8:00 29 8:00	30 8:00 31 0:00	
📮 Show design packages	enter	your	45 2 3 4 5 6 7 8					
ID Description c/m Start d	-		Create new calendar	_		×	Show O Rules per da All rules	te
	bjects		Parent Standard			~		
	Skills		Calendar name Default Cale	ndar				
	Resources	2. You can	choose any name.	OK	Ca	ancel		
< <u>m</u>	n Units of measure	TameFlow Kanba	in III				ОК	Close
		JIRA Jira integration	Calendar	s are link	ed to pr	oiects skil	ls and	
		Custom fields	resources	A calen	ıdar driv	es the cap	oacity or	
		€ € € Finance	availabili	ty in ferm	is of resc	ource hour	'S.	
		Tracking						
			Close				@ a-c	dato

Define working hours and non-working days

6





Standard Calendar - Result

7

🐼 Calendar								—		
(+) × ← → ↑ ↓	 October 2020 	•	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Description	Mon Tue Wed Thu Fri Sa	t Sun				1 8:00	2 8:00	3 0:00	4 0:00	
Standard	40 28 29 30 1 2 3	5 4 5	5 8:00	6 8:00	7 8:00	<mark>8</mark> 8:00	9 8:00	10 0:00	11 0:00	
	41 5 6 7 8 9 10		2 8:00	13 8:00	14 8:00	15 8:00	16 8:00	17 0:00	18 0:00	
	42 12 13 14 15 16 17 43 19 20 21 22 23 24	· · · · · · · · 1	9 8:00	20 8:00	21 8:00	22 8:00	23 8:00	24 0:00	25 0:00	
	43 19 20 21 22 23 24 44 26 27 28 29 30 31		6 8:00	27 8:00	28 8:00	29 8:00	30 8:00	31 0:00		
	45 2 3 4 5 6 7							L		
							Show		No bo	ours available
								, ules per da		
							-		Sature	day and Sund
🐼 Create new calendar 🛛 — 🔲 🗙	Add rule Edit rule	Delete	e rule	Working	nours			ll rules		
Parent Standard ~	Rule description									
	Rules for calendar 'Standard'									
Calendar name Default Calendar	Resources are normally working	g between 9:00	and 17:00)						
OK Cancel	Resources are not working on S	unday								
	Resources are not working on S	aturdav								
		,								
You can add more	You can add holidays, li	/ 0								
(sub) calendars	25 th December and 1 st									
	January.									
								ОК	Close	
								on	0000	



Calendar Assignment per Resource

(🔊 Re	source editor [Mi	ke Dempsey]												×
	+ :	×		•		er	nter your sea	arch tex	t 🗙						
	Ref.	Description		Pro	perties	Assignments	Financial	User	Availability schedule	Skills	Property	values			
	BH	Barry Huberts		Se	t gener	al proper	ties for th	nis res	ource						
1	СВ	Carl Brandon				ontrols the av									
	M	Jack Morgan		C	Description	ı			Reference						99800
	JS	Jane Sanders	_		Mike Dem				MD						
	MD	Mike Dempsey		R	Resource r	manager									
	sп	Steve Horner		٦	Mike Dem	psey				\sim	Clear				
	SC	Sven Cramer		C	Calendar										
	TS	Tom Smith								~	Edit	New			
					Standard Netto avail	ability (%)									
				1	100										
					A pre	-define	ed cale	enda	r needs						
					-					ber 23	3, 2020				
								Juch	resource						
					and v	irtual s	kill.								
	<			>											
											0	К	Apply	C	lose



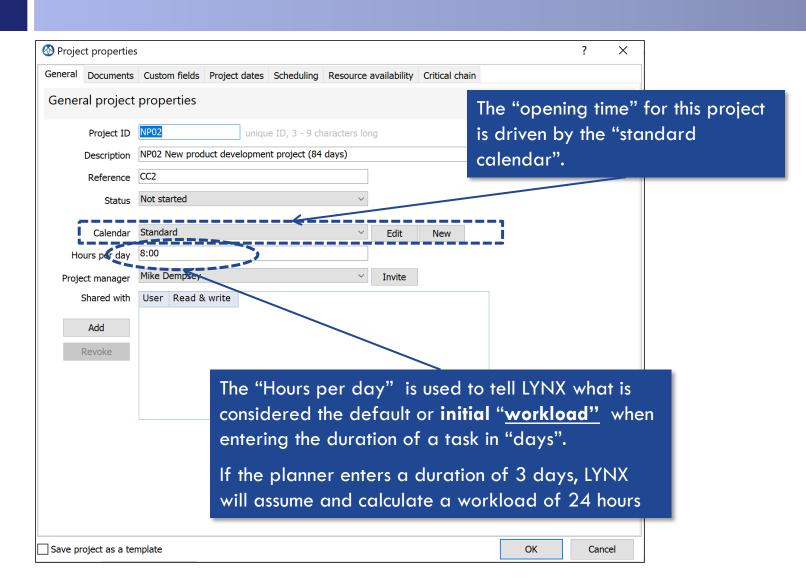
Calendar Assignment for "Virtual Skills" *Skill Editor*

9

🐼 Skills		_		Х
+ ×	enter your search text			
Description General	Scheduling Dutput Properties Team managers Financial Resources			
Designer	o you want the scheduler to handle this skill			
Electronics Engineer				
Engineer Multi-p	roject resource leveling			
Engineering Team This s	etting controls how Lynx will synchronize projects when conflicts exists between tasks requiring the same skill:			
Inaldware Engineer	Resolve conflicts across all projects use this setting for virtual drum resources/capacity constraint resources			
Marketing	Resolve conflicts within projects, allow conflicts between projects			
Mechanical Engineer				
Project Manager Skill ty				
Software Developer	etting controls how Lynx selects resources to work on a task: O Normal: resources are assigned from the list of resources supporting this skill			
Software Engineer	 Virtual: no resources are assigned, availability is set under 'Skill availability' 			
Software Team	Team: resources are assigned as a team. Use 'Skill availability' to set the number of teams available			
Supplier	Global: global skills are placeholders for properties shared among skills			
	⊖ Virtual drum			
System Engineer				
System Tester				
Irainer	ailability (this skill is supported by 0 resource(s), total netto availability is: 0 unit(s)) bility for this skill is set to:			
	Availability is controlled by the number of resources implementing this skill			
Availability of the	Set availability for this skill to 1 Edit Clear			
Virtual Skill "Marketing"				
is determined by the	Skill calendar Standard			
· · · · · · · · · · · · · · · · · · ·				
"Standard" calendar.	1 update is waiting to be applied	OK	Car	ncel



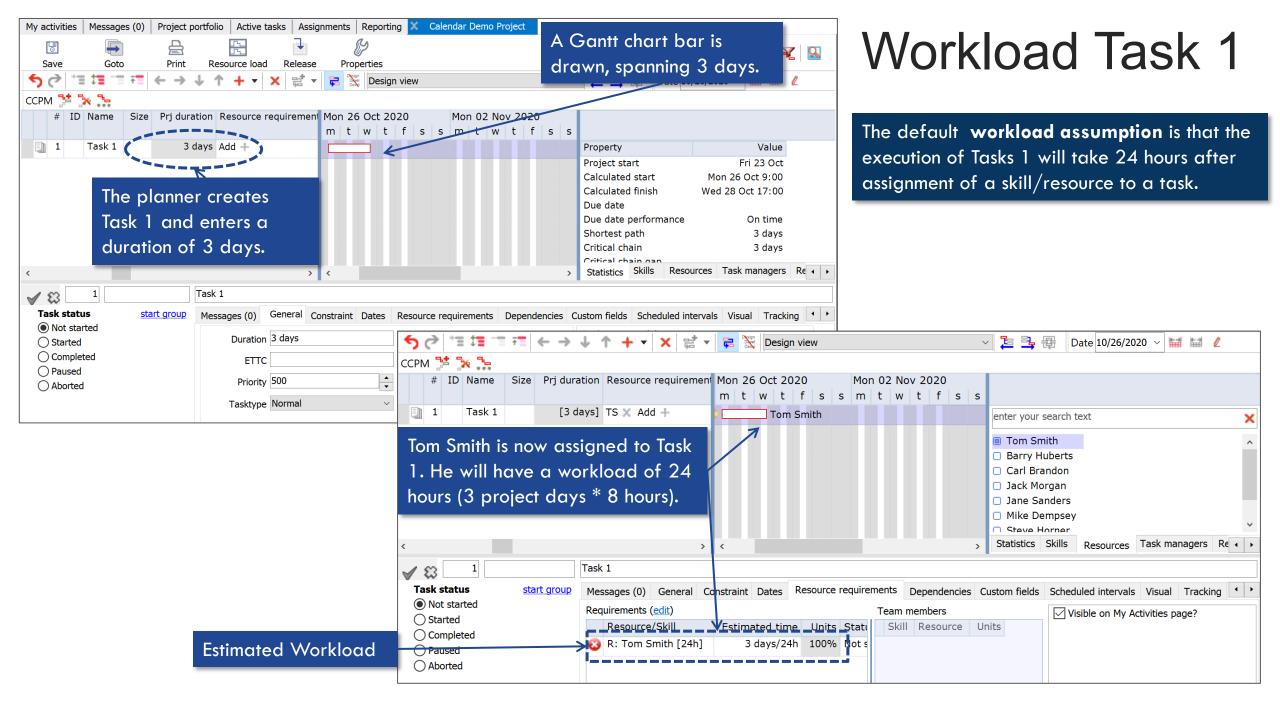
Calendar Assignment by Project Workload Calculation



Note:

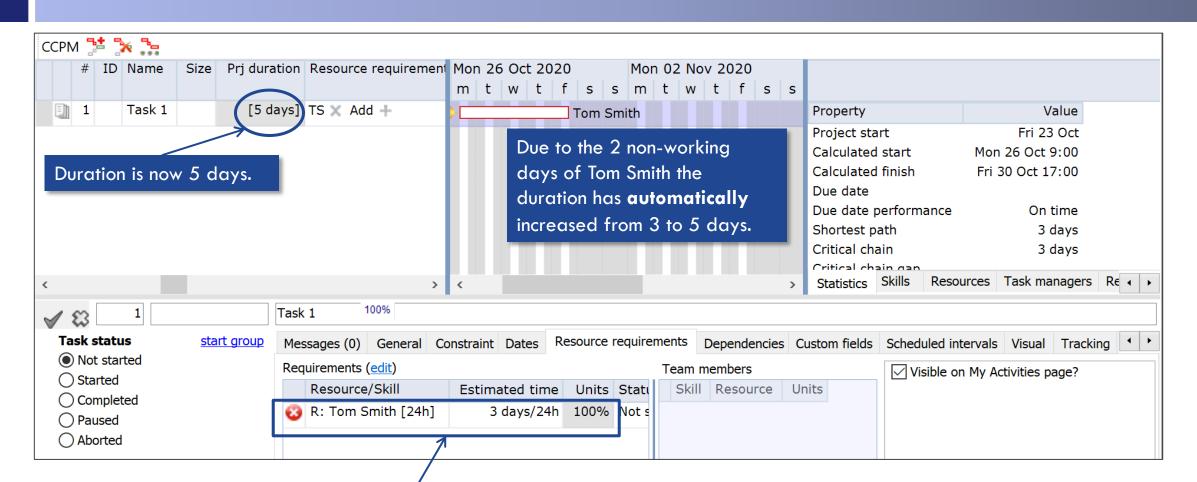
Keep "hours per day" equal to the regular work hours of the organization and equal to the working hours in the calendar selected (in this case the standard calendar).





Automatic change of task duration

Tom Smith is not available on Tuesday and Wednesday

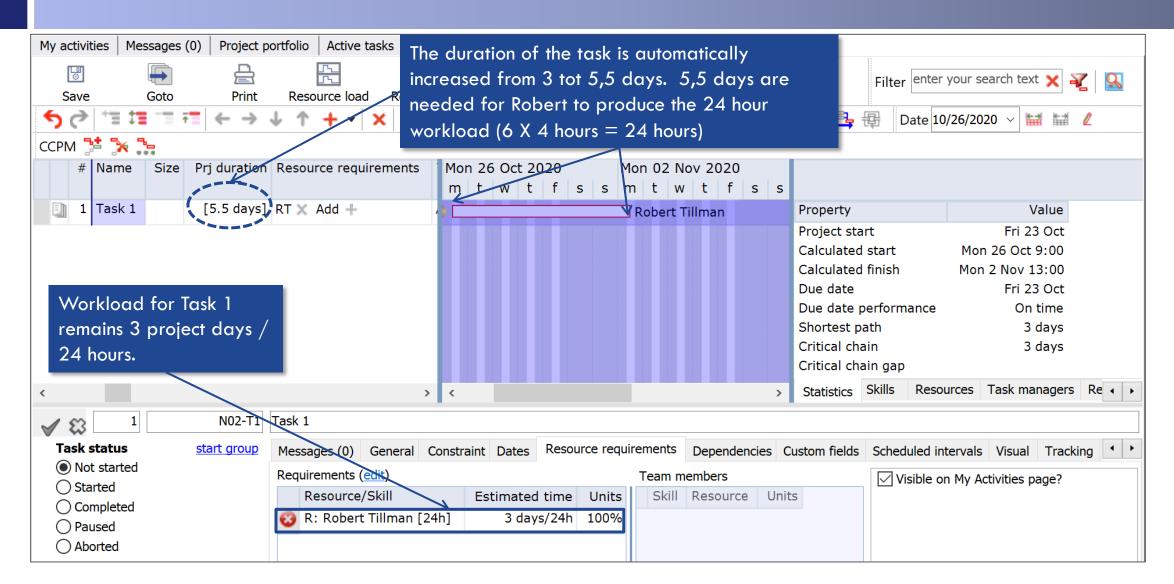


Workload Remains the same (24 hours/3 project days)



Automatic change of task duration

Robert Tillman is assigned. Robert is working part-time (9.00 -13.00 hrs).





Working with Units

Workload calculations

Working with "Units" – normal skills

- The value for "unit" can be anything between 0 % and 100 % for skills of type normal
- LYNX will use the unit value to recalculate the workload, keeping the same duration

My activiti	es Mess	ages (0)	Project po	ortfolio Ac	tive tasks	Assig	nments	Repor	ting 🗙	Calenda	ar Demo			1:				
0		-						Ð						Filter enter	r your search text 🗙 🏹	<u>c</u>		
Save		ioto	Print	Resource	load R	Release		operties										
50	*≡ ‡ ∎	- T	$\leftrightarrow \rightarrow \cdot$	↓ ↑ +	- ×	₽	a	Desi	gn view					Zei				
ССРМ 📑	* 🥆 🦒																	
#	Name	Size Prj	duration	Resource r	equireme	ents	Mon 2 m	26 Oct 2 t	2020 W	t	f	s	s					
1	Task 1		[3 days]	TS 🗙 Add	+					Tom Sm	nith			Property	Value			
														Project start	Fri 23 Oct			
														Calculated start	Mon 26 Oct 9:00			
														Calculated finish	Wed 28 Oct 17:00			
														Due date	Fri 23 Oct			
														Due date performance				
														Shortest path Critical chain	3 days			
														Critical chain gap	3 days			
	_													5.		De		
<						>	<						>	Statistics Skills Reso	ources Task managers	Re • •		
1 23	1		N02-T1	Task 1														
Task st	tatus	sta	rt group	Messages (0) 50%	al Co	nstrain	t Dates	Resou	urce requ	irements	Depend	lenci					
Not	started					,					Toom	•		om Smith is ass	ianed for 50) %		
ad is n oduce	Requirements (edit) Team members Resource/Skill Estimated time Units Still Resource R: Tom Smith [12h] 3 days/24h 50% No							tc	• Task 1. His w * 8 * 50 % =	vorkload is n								



Working with "Units" – Virtual skills

- The unit value can **be more than 1** you can assign multiple Virtual Skill / Resources
- The maximum is determined by the availability set in the Skill Editor
- LYNX will use the unit value again to recalculate the workload, keeping the same duration

5 ⊘ *≡ # * = + →	↓ ↑ + ▼ 🗙 🗟 ▼ 😝 📉 Design view - 🍹 🍕 Date 10/26/2020 - 🖼 🖼 🖉								
ссрм 📑 🔭 🍡									
# Name Size Prj durat	ion Resource requirement: Mon 26 Oct 2020								
	m t w t f s s								
1 Task 1 [3 day	ys] Market X Add + Marketing enter your search text								
 Designer Electronics Engineer Engineering Team Hardware Engineer Marketing Mechanical Engineer Project Manager 									
$\checkmark \omega$	Task 1								
Task status <u>start group</u>	Messages (0) General Constraint Dates Resource requirements Dependencies Custom fields Scheduled intervals Visual Tracking								
Not started Started	Requirements (edit) Team members Visible on My Activities page?								
	Resource/Skill Estimated time Units Stat Skill Resource Units								
 Paused Aborted 	V: Marketing [72h] 3 days/24h 300% Not								
	3 Marketing people have been assigned to Task 1 for 3 days. Workload is 3 * 8 * 300 % = 72 hours.								



Virtual Skill Availability Setting

17

Exerciption Description Designer Electronics Engineer Engineer Indiverse Engineer Multi-project resource leveling This setting controls how Lynx will synchronize projects when conflicts exists between tasks requiring the same skill:
Designer Electronics Engineer Engineering Team Hardware Engineer Marketing Mechanical Engineer Project Manager Project Manager Software Engineer Software Engineer Software Engineer System Tester Trainer Skill availability (this skill is supported by 0 resource(s), total netto availability is 0 unit(s)) Availability for this skill is supported by 0 resource(s), total netto availability is: 0 unit(s)) Availability for this skill is set to: Availability for this skill is set to: Availability for this skill to 5 Edit Clear

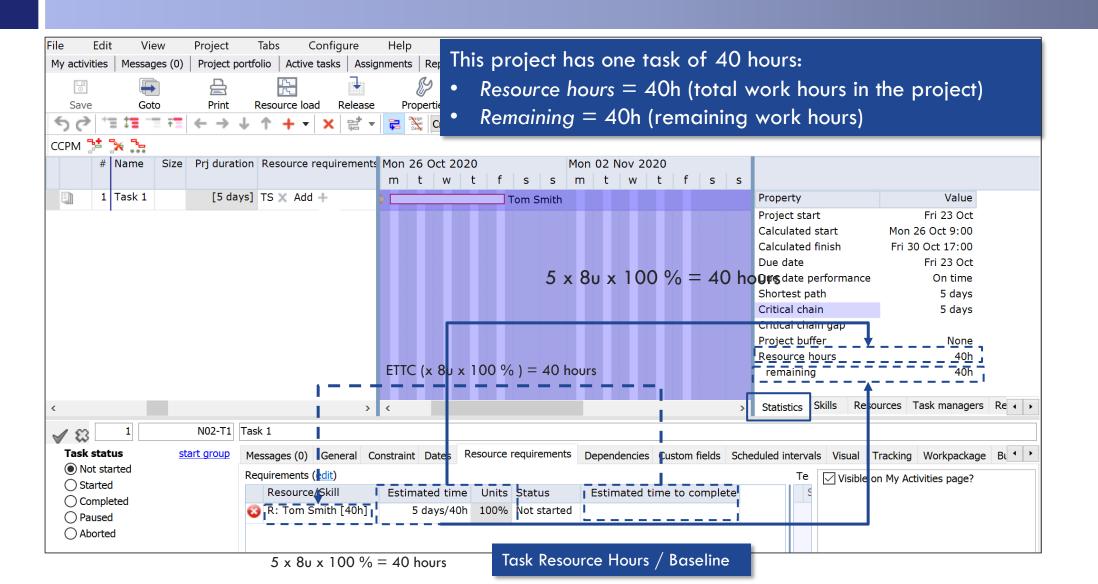


Project Statistics – Duration & Workloads

Workload Interpretation based on ETTC

Project Statistics

Calculation Resource Hours + Remaining Workload



1-day progress according to plan and baseline

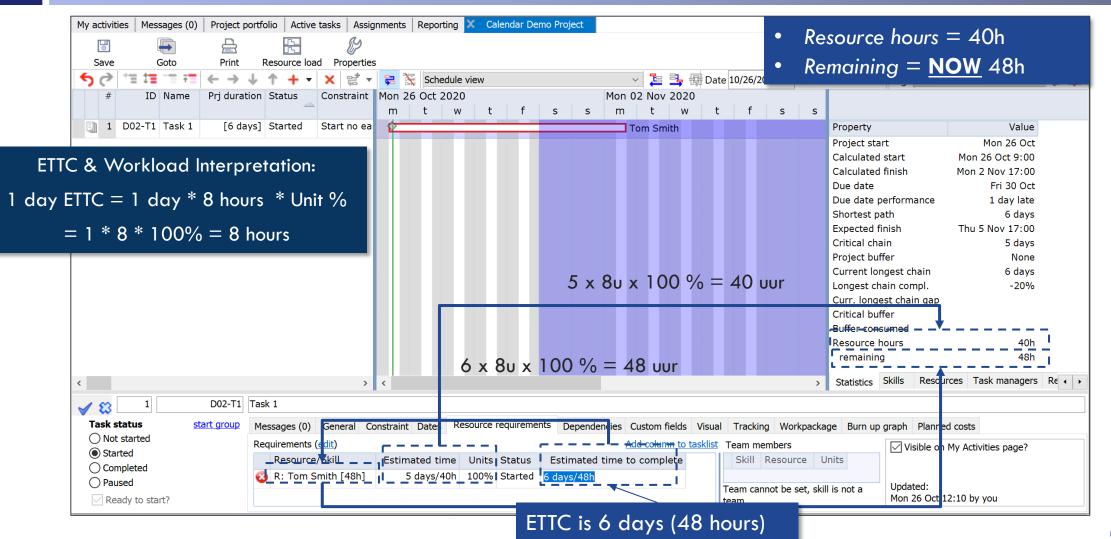
<u>Task 1</u> requires in total 5 days/40 hours: **1-day (8 hours)** progress achieved \rightarrow still 4 days (32 hours) to go

My activities Messages (0) Project portfolio Active tasks Assignments Reporting Calendar Demo Project Image: Solution of the state of th	
$5 \times 8u \times 100\%$ 4 x 8u x 100% = 32 hou	Current longest chain 4 days Longest chain compl. 20% Curr. longest chain gap Critical buffer Buffer consumed 40h
	March Trading Madra lange Durg up mark. Dia state



Effect of 1 extra day at 8 hours

Task 1 takes 6 days instead of 5 days (ETTC = 6)





ETTC Workload interpretation Based on planned "Unit percentage" for the task

My activitiesMessages (0)Project portfolioActive tasksAssi1 day ETTC for task 1 at 100 %SaveGotoPrintResource loadPropertie= 8 hours per day ETTC.	and the second
1 D02-T1 Fulltime Task - 100% 70% n/a	Property Value
2 D02-T2 Partime Task- 50% 0% n/a 3 D02-T3 Project buffer 0%	Project startWed 4 NovCalculated startWed 4 Nov 9:00Calculated finishWed 11 Nov 17:00Due dateMon 16 NovDue date performance3 days earlyShortest path6 days
Task 2 is planned "part-time" at 50 %.	Expected finish Mon 16 Nov 17:00 Critical chain 6 days
	Project buffer 3 days
\rightarrow LYNX assumes that each day ETTC is likely to	Current longest chain 6 days
represent 50% * 8 hours = 4 hours per day ETTC.	Longest chain compl. 0% Curr. longest chain gap Critical buffer Project buffer Buffer consumed 0%
	> Statistics Skills Resources Task managers Re · ·
2 D02-T2 Partime Task- 50%	
Task status start group Messages (0) General Constraint Dates Resource requirements Dependencies Custom fields Visual Tracking Workpack	ckage Burn up graph Planned costs
Not started Requirements (edit) Add column to tasklist Team members	Units Skill is not a Visible on My Activities page? Updated: Mon 26 Oct 12:30 by you
6 days ETTC * 4 hours = 24 hours calculated estimated wo	ork





Resource selection

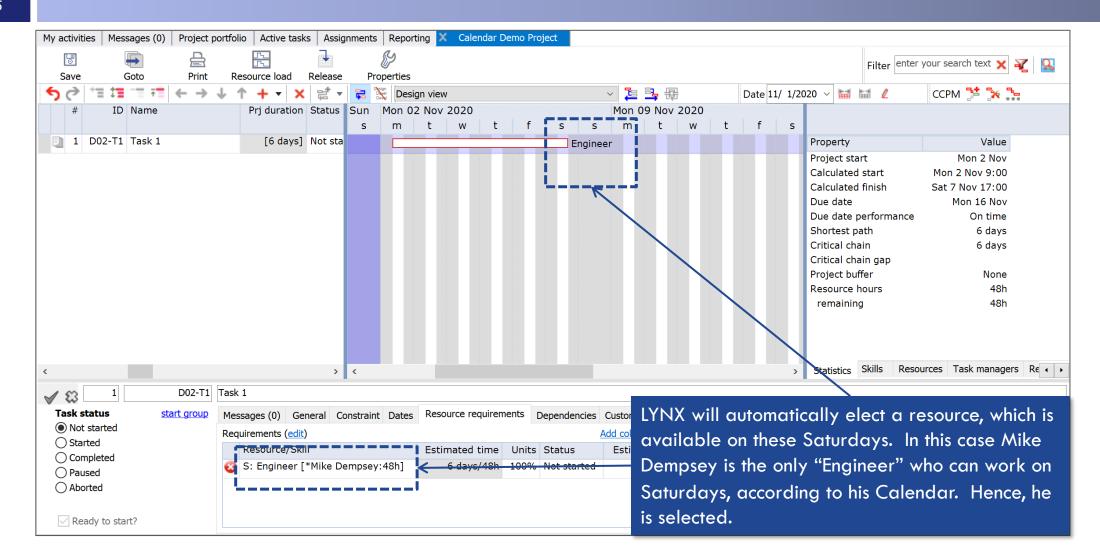
Special Calendars – Working on Saturdays

Project Calendar includes Saturdays in March

🐼 Proje	ct properties							?	×
General	Custom field	s Project date	s Scheduling	Resource availability	Critical chain				
Gener	ral project	properties							
	Project ID	D02	uniq	ue ID, 3 - 9 characters	long				6568
	Description	Calendar Demo	Project						
	Reference	enter a referen	ce to identify t	his project					
	Status	Not started		、 、	~				
[Calendar	Standard + Sat	urdays in Marc	ch 🔪	Edit	New			
Ho	ours per day	8:00							
Proje	ect manager	Mike Dempsey		Ň	Invite				
	Shared with	User Read 8	write						
	Add								
	Revoke								
Duri	ng the	month N	\arch, a	lso the					
Satu	urdays	are cons	idered	as project					
worl	king da	iys (6 do	ays a w	eek / 48					
hour	rs a we	ek).					ОК	Ca	ncel
								-	



Resource Selection (soft-assignment)





Critical Chain and Non-Working Periods

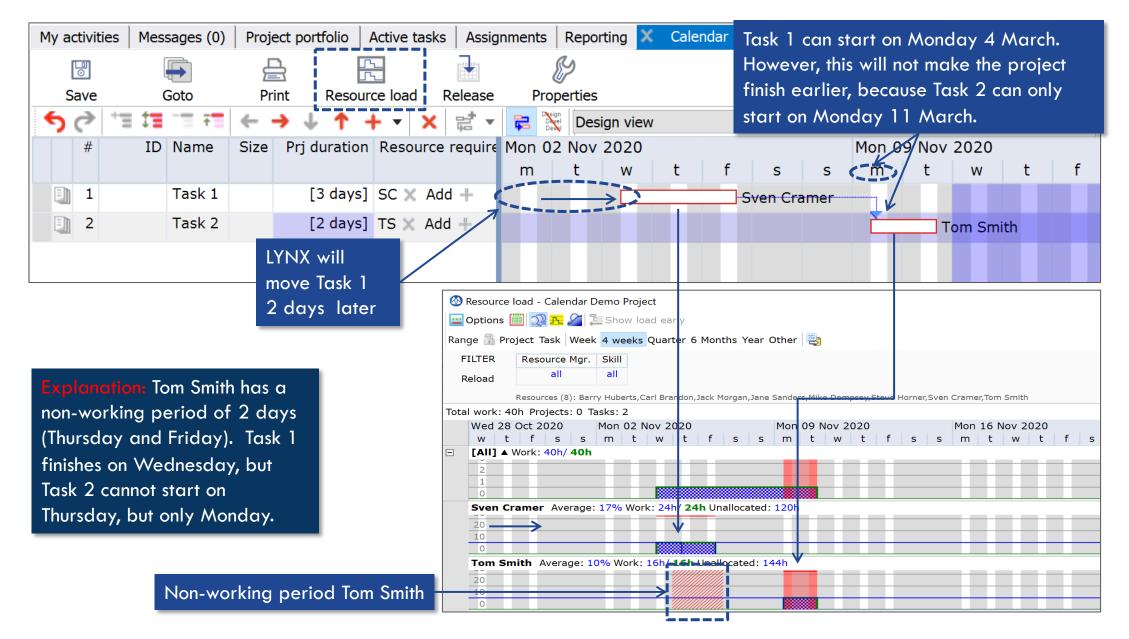
Impact of Non-Working periods on the Critical Chain

Background

- **The Critical Chain Calculation process of LYNX will take into account non-availability periods of resources:**
 - Vacation period
 - Training period
 - Non-availability for other reasons
- **The following use-cases may occur, due to non-working periods during the project:**
 - Automatic change of a start date, to keep a short CC
 - Identification of a "Critical Chain Gap"
 - Extension of the Critical Chain Duration, in case the CC is spanning a non-working period
 - **Existing Resource assignments, impacting the CC when releasing a new project to the multi-project pipeline**
- **The examples in the next pages reflect desired and expected behaviour of LYNX, however:**
- When reviewing the Critical Chain duration, we recommend to take into account these special usecases can occur

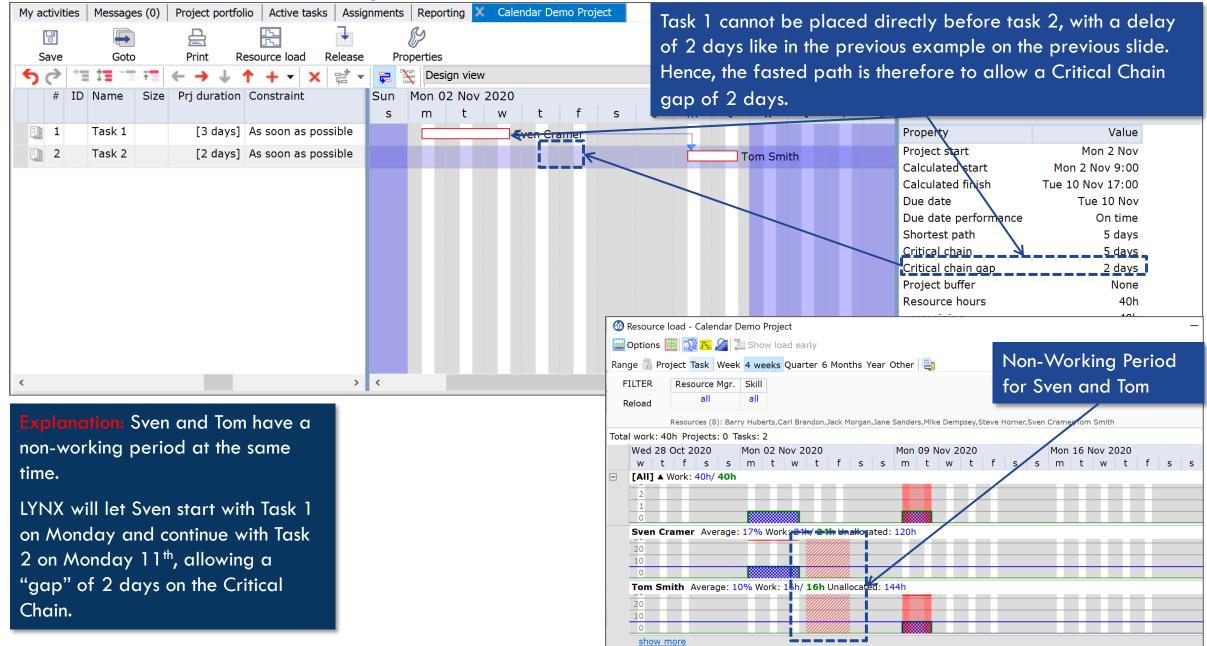


Impact non-working periods on the Critical Chain Automatic Change of Project Start Date, to keep a "short CC"

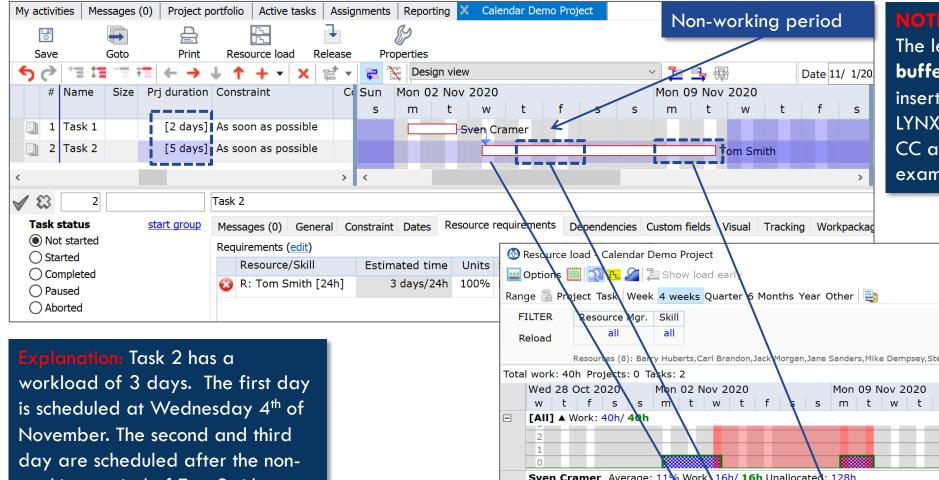


Impact non-working periods on the Critical Chain

Critical Chain Gap Situation

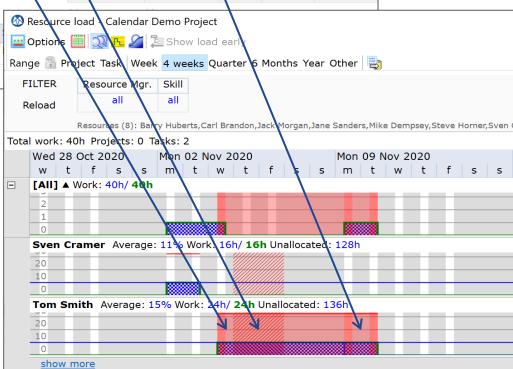


Non-Working days can extend the duration of the Critical Chain The CC is extended with 2 days (2 + 5 (3+2) = 7 days), spanning the Non-Working period of Tom Smith



The length of the calculated **buffers**, are not affected by the insertion of non-working periods! LYNX takes the net length of the CC as the starting point. In this example 5 days.

working period of Tom Smith: on Monday 09th and Tuesday 10th of November.



Multi-project impact of non-working periods

- Non-Working periods in case of "Assignment by Skill" process:
 - **The** "*Project B*" plan contains **Task 1**, which requires the skill "Developer" in week 34
 - There are 2 resources implementing this skill (John and Sven). John is not available in week 34 due to a short vacation
 - LYNX will therefore automatically nominate Sven as the candidate resource, available to work on Task 1 in week 34
 - However, "Project A", which is already released and executed, also needs a developer in week 34. Therefore Sven is already confirmed to work on the task in Project A, which requires a developer in week 34
- What happens if **Project B** is released (staggered with **Project A**):
 - Since Sven is already allocated to Project A, the only option is to assign John to the project. The consequence is that project B is impacted with the Non-Working Period of John.
 - As a result the duration and schedule of project B will extended

Considerations / Implementation:

- Masterscheduler, Resource management and/or project manager to review possible impact
- A consequence may be that the "Buffers" need to reevaluated, with John assigned to Task 1
- Please contact A-dato for more information on possible scenario's

