

SKILL – RESOURCE ASSIGNMENT PROCESS

Resource Management





Topics

- Resource / Skill Model
- Resource Management
 - Assignment Options
 - Timing & Responsibility
 - Pre-Selection Definition of Core-Team / "Dream Team"
- Who is available when?
- Competencies and Properties
- Multi-Project Resource Load Information
 - Blue-Line Availability information



Process Flow and (Typical) Roles *Planning – Release - Execution*

Project Planning Phase

Project Release Phase

Execution Phase

• Project Manager + Team/TM + RM

- Create plan / logical network
- Define initial time-slot (end start)
- Specify resource requirements for each task
- Assign Task-Managers
- Specify resource availability (team pre-selection)
- Optimize plan together with the team

- Release Manager + RM + PM
- Release Wizard Process for staggering
- Check "Earliest Availability"
- Confirm start-date and end-date
- Confirm the project (core) team (names)
- LYNX will activate project and tasks

- Project Manager + Team/TM + RM
- Selection and starting work based on priority
- Start if:
 - A task can be finished
- Ready to Start (RTS)
- Limit # of started tasks
- Reporting of ETTC

Integrated Resource Planning and Management with "soft" and "hard" assignments **Team/Skill/Resource Multi-Dimension Matrix**



Configuration Resource/Skill Model

LYNX Resource/Skill and Team Model *Multiple-properties*

- Resources and skills are separated and have an "N to N" relationship:
 - A resource can have multiple skills
 - A skill can be implemented by multiple resources
- Special "competencies" identification via (unlimited) properties at skill and resource level

Team assignment: Resources are

Engineering Design Programming Name 1 Name 2 Name 3 Properties Exposure Technology Expertise (seniority)

LYNX "protects" resources with unique competencies or domain know-how!



assigned to a team



Team

Multiple-Properties Example

Skill (Role) Properties and Global Properties

Advanced: Multi-Property-Skill- Resource Management

Ask A-dato for the special Tutorial



A-dato Confidential



Skills and Resources in LYNX

Configure \rightarrow Skills

Skills		T ir	he skill Hardware nplemented by 3 r	Engineer is resources.
Description Designer Electronics Engineer Engineer Engineering Team Hardware Engineer MarketIng Mechanical Engineer Project Manager	General Scheduling Outp Which resources imp Please use the resource edite Description Jack Morgan Jeremy Grand Patrick Johnson Ref. BH CB JM JM JS JG MD PJ SH SC TS	Properties Team manager Properties Skill? or to assign or remove resources source editor [Patrick Johnson] Description Barry Huberts Carl Brandon Jack Morgan Jack Morgan Jare Sanders Jeremy Grand Mike Dempsey Patrick Johnson Steve Horner Svon Cramer Tom Smith	rs Financial Resources	r Availability schedule Skills Property values e selected resource a resource Assigned skills Hardware Engineer Software Developer
		S) SI TI	ystem Tester rainer	Patrick Johnson has 2 skills.



Assignment options

- Assignment options to activities or tasks:
 - By "Skill"
 - By "Skill" and "Property"
 - By "Virtual Skill" for example "Supplier" or "Marketing"
 - By "Resource Name"
- Assignment levels via "Assignment by Skill":
 - Soft-Assignment \rightarrow S:*Resource Recommendation by LYNX
 - Hard-Assignment
- \rightarrow S: Resource Confirmed by user





Skill Settings – "Normal Skill"

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🐼 Skills	- 🗆 X
+ ×	enter your search text
Description	General Scheduling Output Properties Team managers Financial Resources
Designer	How do you want the scheduler to handle this skill
Electronics Engineer	
Engineer	Multi-project resource leveling
Engineering Team	This setting controls how Lynx will synchronize projects when conflicts exists between tasks requiring the same skill:
Hardware 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 type
Software Developer	 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	O Team: resources are assigned as a team. Use 'Skill availability' to set the number of teams available
Supplier	O Global: global skills are placeholders for properties shared among skills
System Engineer	○ Virtual drum
System Tester	
Trainer	Skill availability (this skill is supported by 3 resource(s), total netto availability (s: 3 unit(s))
	Availability for this skill is set to:
	Availability is controlled by the number of resources implementing this skill
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	Skill calendar <u>Edit</u> New Hiere die S indmed resources
	who have the "Engineering Skill"
	OK Close

a-dato

Skill Settings – "Virtual Skill"

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We assume that there are 2 **Marketing** FTE available, where their availability is determined by the "standard calendar". The availability can be increased to any number (including <u>decimals</u>) as appropriate.



Virtual Skill "Availability Profile"

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Engineer	Multi-project resource leveling			LYNX allows f	o set up ar	ו	
Engineering Team	This setting controls how Lynx will synchronize projects	when conflicts exists between tasks r	requiring the same skill:	"Availability F	Profile" for	r a	
Hardware Engineer	use this setting for virtual drum resources/capa	city constraint resources					
Marketing	 Resolve conflicts within projects, allow conflicts 	between projects		Virtual Skill .	•		
Mechanical Engineer	Skill type			n This factors is	.		
Project Manager	This setting controls how Lvnx selects resources to work	on a task:	Enter "default value	inis teature is	especially	/ USE	etui ir
Software Developer	Normal: resources are assigned from the list of	resources supporting this skill	then select "Edit"	for LYNX user	s who plan	on	ly at
Software Engineer	Virtual: no resources are assigned, availability in the second	s set under 'Skill availability'		Heletti? Level	•		<i>'</i>
Software Team	Team: resources are assigned as a team. Use	Skill availability' to set the number of	f teams available	SKIII IEVEI.			
Supplier	 Global: global skills are placeholders for proper Virtual drum 	ties shared among skills					
System Engineer		/					
System Tester							
Trainer	Skill availability (this skill is supported by 0 resource(s),	total netto availability is: 0 unit(s))					
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Assignment Options



(S) The skill "Development" is assigned to Task
1. LYNX has "Soft Allocated" Patrick Johnson as best choice at this point. This is indicated by an *.



Resource Load – Availability Profile







Initial Assignments: By Skill or Resource?

Implementation Decision

- **Some organisations assign resources directly (R) with the "skill in mind"**
- Others prefer first to specify the resource requirements by skill (S), and final assignment of a named resource is subject to the "Resource Management" process
- **CCPM** advocates to start with assignments by skill first, and worry later about which named resource will execute a task
- Advantages of an "Assignment by Skill" process:
 - LYNX will do an automatic "*soft assignment" recommendation of a named resource to tasks that are planned by "skill"
 - Less mismatches between task requirements and assigned resources
 - 2- step process, where specification of resource requirements are uncoupled from final (hard) assignment through resource management
 - Better and meaningful Resource Load information "By Skill" → Constraint resource identification by skill group
 - More optimisation (aggregation) options for the overall planning: selection of named resource can be postponed to the latest moment





Resource Management

Soft \rightarrow Hard-Assignment of Resources

(Applicable for "Normal" Skills)

Soft-assignment \rightarrow Hard-assignment

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Hard-Assignment via the Project Plan

- → Task Properties/ Resource Requirements
- Manual Hard-Assignment in the project plan
- Idem, but via the Resource Requirements editor
- Automatically by entering an ETTC
- By Project \rightarrow Accept Soft-Assignment

Hard-Assignment via the **Desktop**

- → Progress Tab / Progress Dialog
- Automatically by:
 - Changing status to started
 - Entering an ETTC
- Manually by selecting a named resource in the drop-down box

Hard-Assignment via the Project Plan



Hard-Assignment via the Project Plan (automatically)

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Hard-Assignment via <u>Active Task Tab</u> Only available after a project is "released"!

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Hard-Assignment via My Activities





Resource Management: Timing and Responsibility Soft-assignment → Hard assignment (Confirmations)

- Implementation decision
- Responsibility of, for example:
 - Project Manager
 - Team Manager
 - Task Manager
 - Portfolio Manager
 - OR: Resource Management Meeting

Timing:

- As late as possible keep your options open as long as possible!
- **BEFORE** a task is due to start!



Timing Resource Confirmations As late as possible



Changes can be made at any time but preferably **as late as possible** (when tasks are RTS !)





Resource Availability Settings

Pre-Selection of a "Dream Team" or "Core Team" for a project

Resource Availability Matrix

Pre-selection and definition of (dedicated) core-teams

- When creating the project, the project manager is able to pre-select his "dream" team:
 - Apply soft-criteria for selection:
 - Behavioural characteristics
 - Likely fit for the team
- Create realistic plans:
 - Typically a plan is built with a subset or maximum number of resources in mind
 - Although there may be, for example, 10 developers available, the project manager is allowed/ likely to :
 - Consider only an availability of 3 out of 10 developers OR:
 - Nominate a selection of 3 named resources out of the total pool of 10
- LYNX provides a pre-selection process:
 - Via project properties / resource availability





Advanced Multi-Property Resource Management (Request the quick start guide with A-dato)

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Who is Available When?

LYNX Calendar Availability tab

LYNX Assignments Tab

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Multi-Project Resource Load Information

Skill based Resource Load for identification of the constraint resource group (skill group)

Multi-Project Resource Load Information

Available by skill when assignments are done via the skill

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3%. The Hardware Engineers still have 384 hours available.	

Multi-Project Load Resource Load – Blue Line Unfolded





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Non-Availability Periods

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🐼 Resource editor [Jeremy Grand] Х ٢ enter your search text × × + Ref. Description Availability schedule Skills Properties Assignments Financial User Property values BH **Barry Huberts** This schedule marks non-working periods CB Carl Brandon Resources are not available during the periods listed in this grid JM Jack Morgan + × Jack Morgan JM Period start Period end Description Jane Sanders JS Monday, November 9, 2020 Wednesday, November 11, 2020 Holiday JG Jeremy Grand Mike Dempsey MD PJ Patrick Johnson SH Steve Horner SC Sven Cramer TS Tom Smith Jeremy Grand has a non-working period from 9 November until 11November

