

Master Jobs / Sub Jobs

Instructor Melody Takamori, Spectrum Software Training Specialist

Overview Master / sub jobs can be used to when different division or individuals manage different parts of a large job.

Key Concepts

- Master Job Rules
- Master / Sub Job Setup
- T+M Job Billing Setup
- Auto Create Phases in Sub Jobs
- Job Inquiries and Reports

Overview of Master Jobs / Sub Jobs

Definitions

Master Job

A master job serves as the primary job setup. Including the customer, tax definition and phases. T+M and Cost Plus master jobs can also control Labor and Equipment billing rates. Master Jobs allow for reporting that will roll-up all the sub job activity, as if performed in a single large job.

Sub job

A sub job is a job that is associated with a 'master job'. It allows independent tracking of cost and revenue activity, but can also be part of the 'master job' for reporting purposes.

Business Issues Solved

Ability to Manage Individual Parts of Larger Projects

The master/sub job concept can be used when different divisions or individuals manage different parts of a large project, thus allowing profitability reporting by the sub job and master-job level. Cost center or job-based security can be enabled to ensure that only the appropriate groups have access to the sub job.

Commercial Service against Master Contract

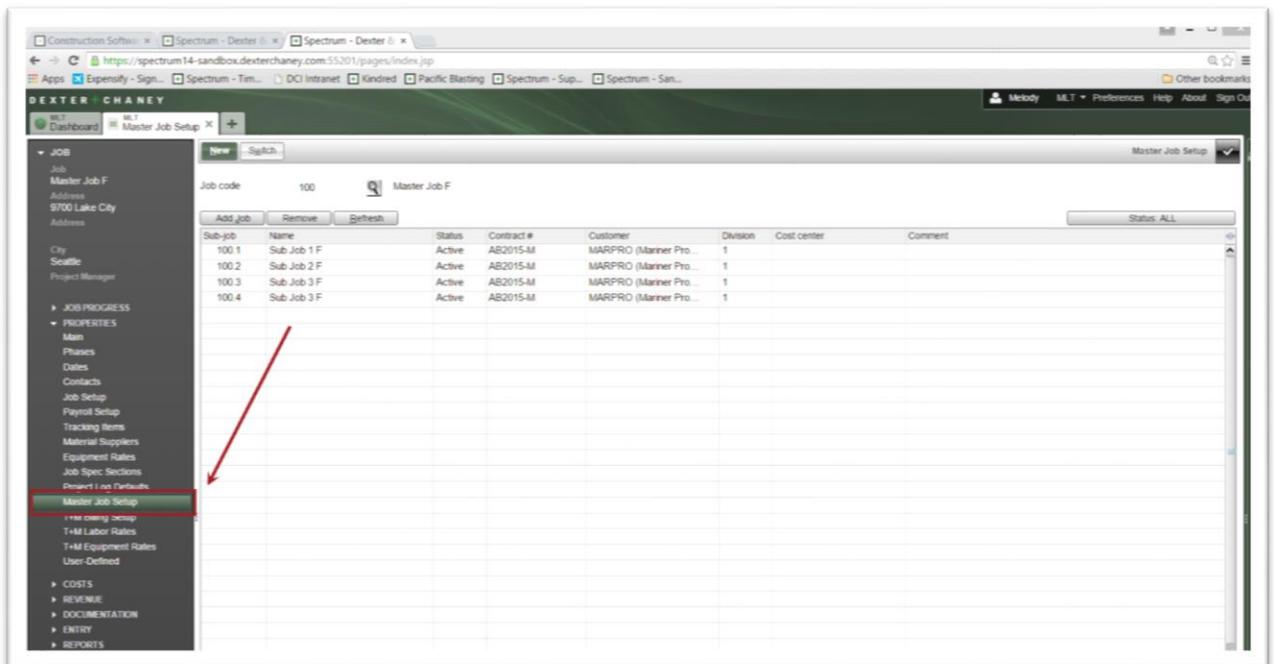
In the commercial service arena, small jobs (or work orders) are created against a master contract. The total billings of these small jobs are not to exceed a set amount, and many times only one invoice is submitted to the customer.

Master Job Rules

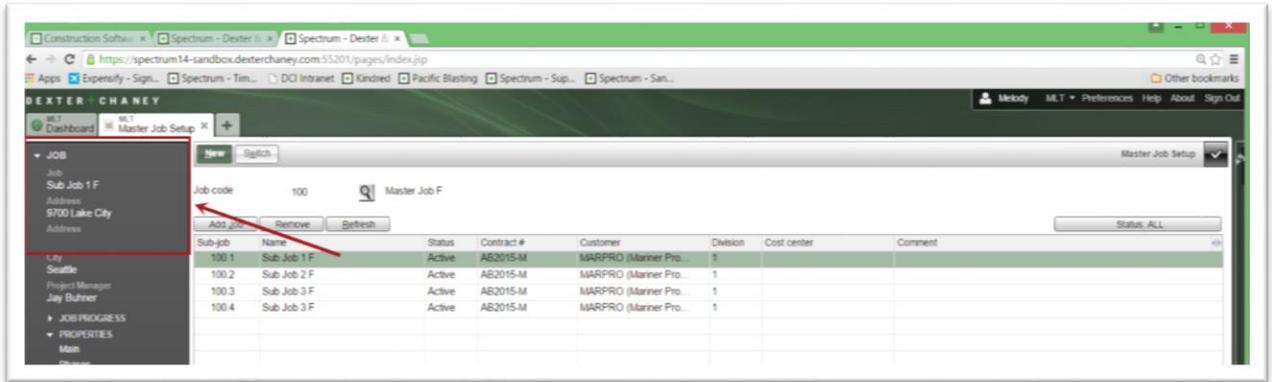
- A job can be a master job or a sub job, but not both. Only one layer of master + sub jobs is supported. This means that a sub job cannot be a sub of another sub job, and a master job cannot be a sub job of another master job.
- To facilitate rolling up values, sub jobs must use the same phase structure as the master.
- The master job cannot be set to 'Complete' while any of its sub jobs are still open. Sub jobs cannot be reopened if the master job is marked complete.
- To assist in setting up new phases on sub jobs, the system will automatically create phases on the sub job if it exists on the master job. This makes setting up sub jobs quick and easy. Allowing only the phases actually used appearing in sub jobs instead of copying a complete list of phases to a job. The master job phases must be set to either 'Active' or 'Inactive' to be available to sub jobs.
- Sub jobs billed out using the T+M module automatically use the master job's labor and equipment billing rates.

Master Job Setup

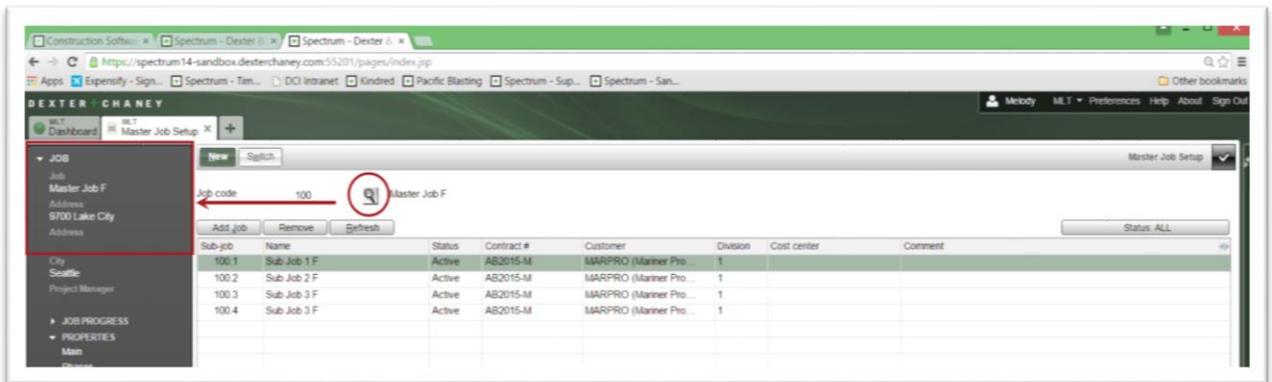
Use the new 'Master Job Setup' page to associate sub jobs with the master job.



The Info Bar will display sub job information in context.

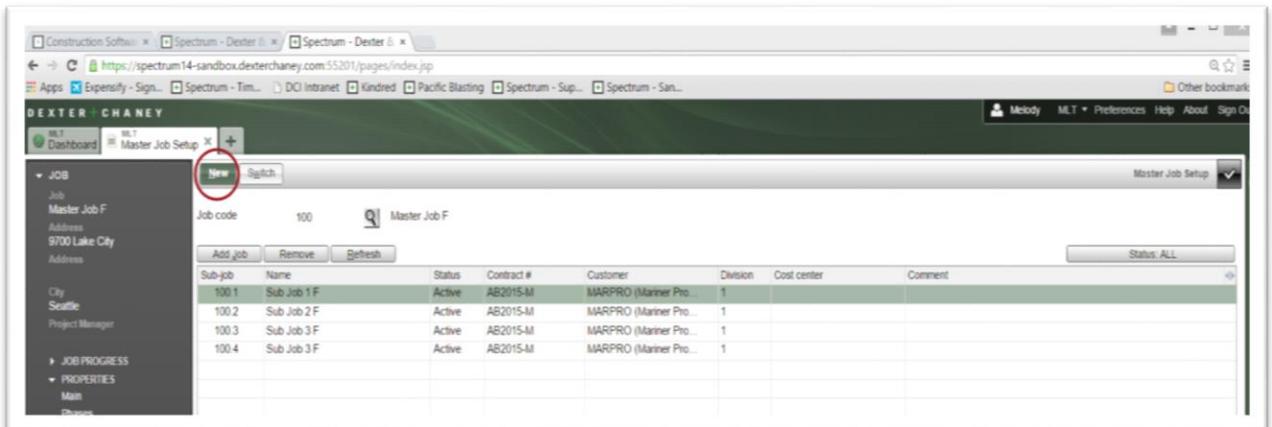


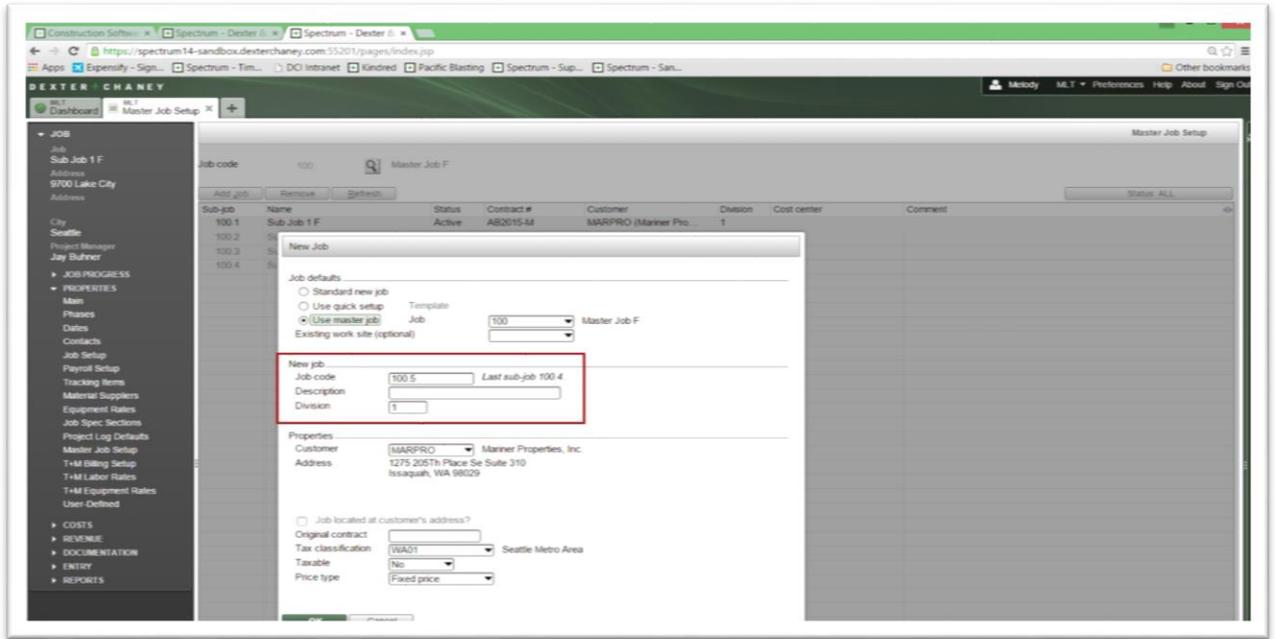
Click on the magnifying glass icon to redisplay the master job in the Info Bar.



New Button

Click to open the 'New Job' window, and the master job will default in when setting up a job. Spectrum will attempt to sequentially number the new sub job by following the numerical pattern of any previous sub jobs. You can override the job number as needed.



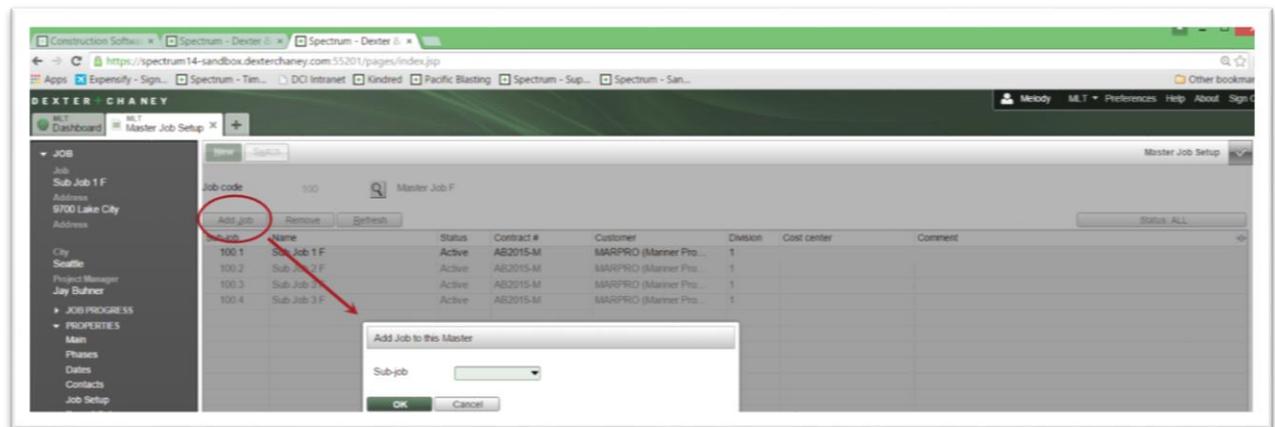


Auto Numbering:

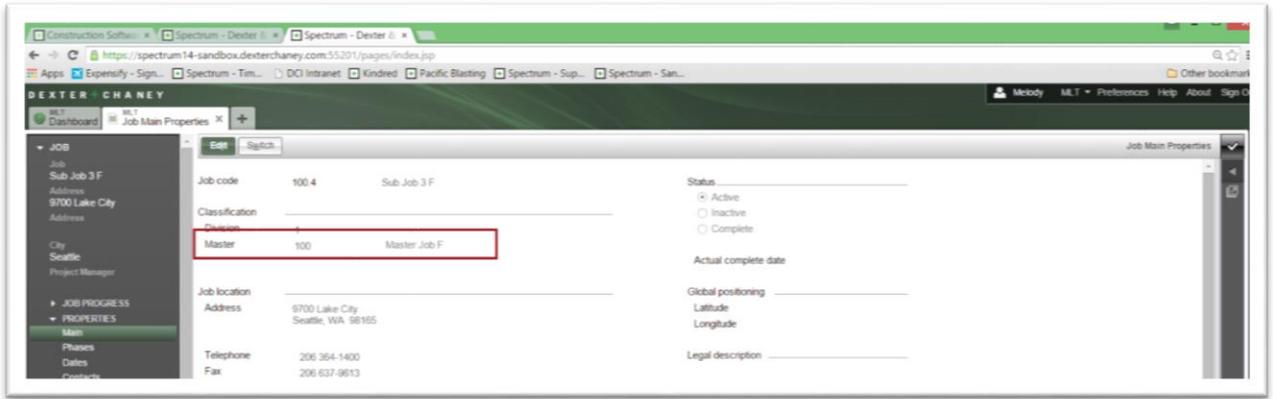
'Last sub job'	Default into field:
700-09	700-10
ABC002	ABC003
70099	70100
700-99	701-00
701-ALPHA	702-ALPHA
ABC-123XYZ	ABC-124XYZ
222ABC440	222ABC441
ALPHA	< no default >
5ABC999	< no default >
9999999999	< no default >

Add Job Button

Use to associate an existing job with this master. Protection is in place to prevent an existing master or sub job from being assigned to a new master job.

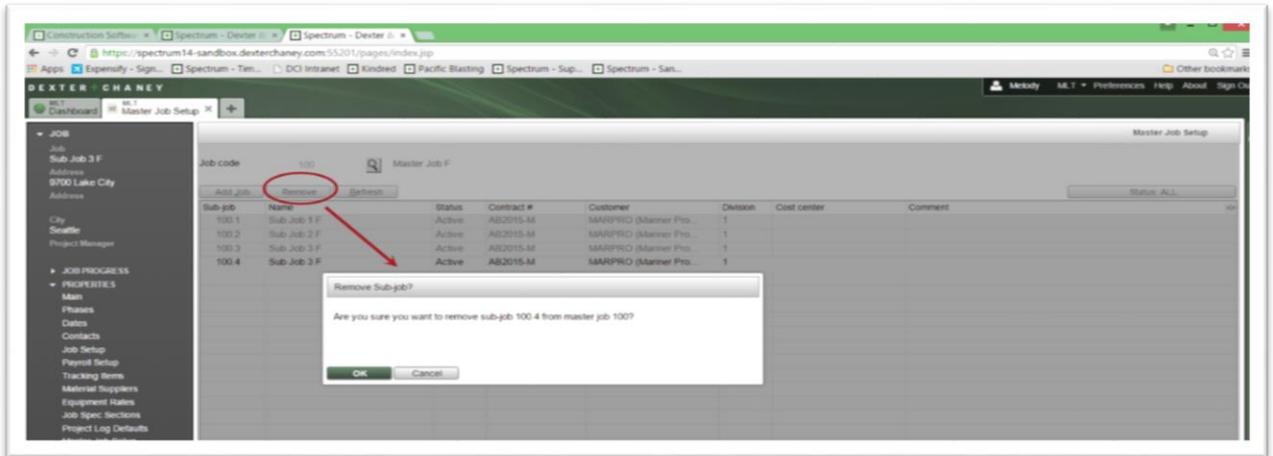


You can also manually enter the master job into an existing job's Main Properties page.



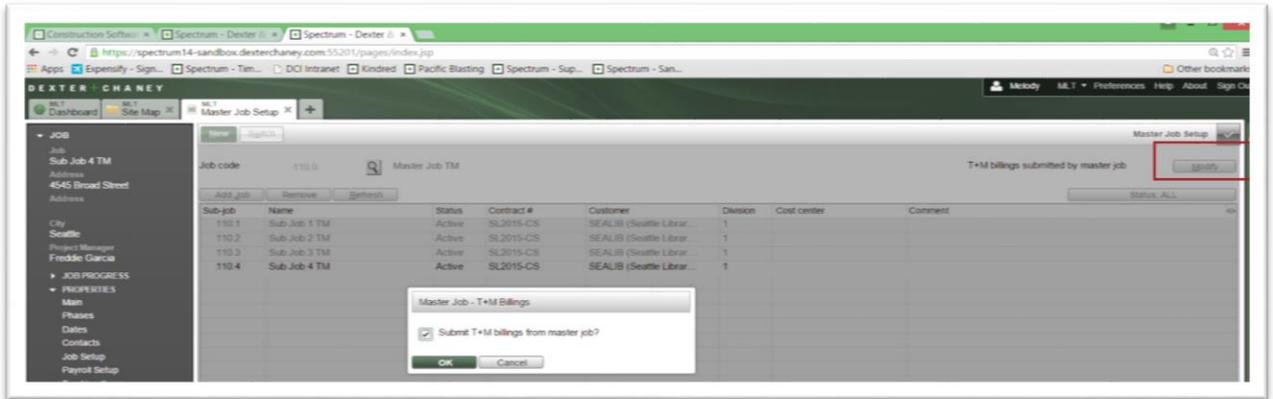
Remove Button

Removes the master job number from the selected sub job, thus removing the master-sub relationship. The master job can also be deleted from the sub job's 'Main Properties' page as well.



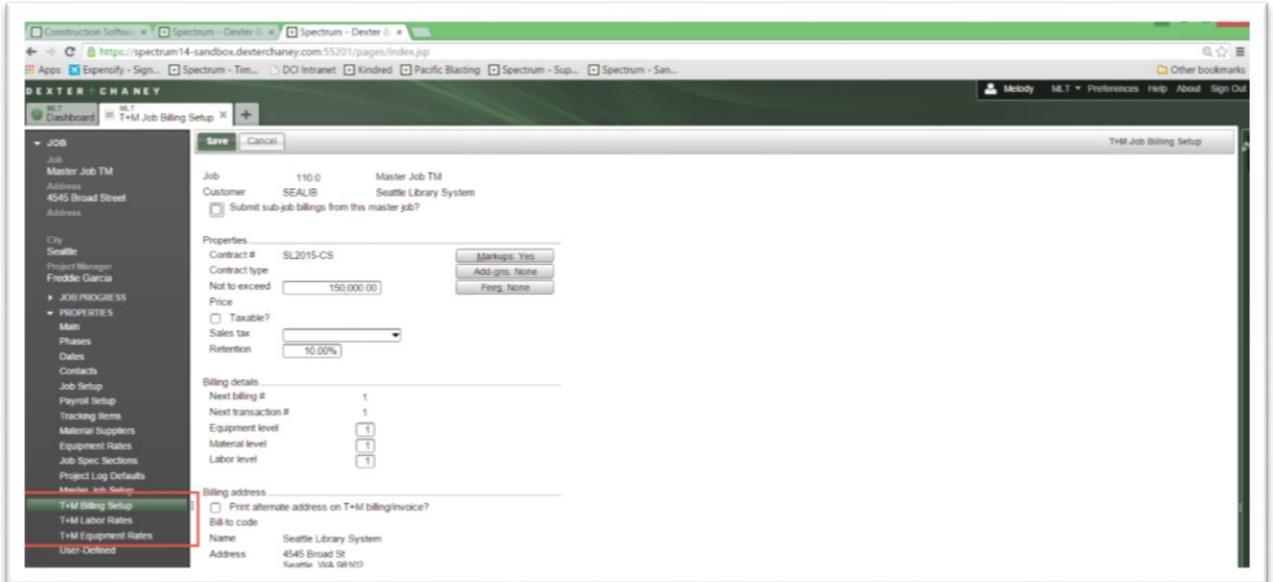
Modify Button (T+M, Cost Plus Only)

Click to select the 'Submit T+M billings from master job?' checkbox. This same checkbox is available in T+M Job Billing Setup.

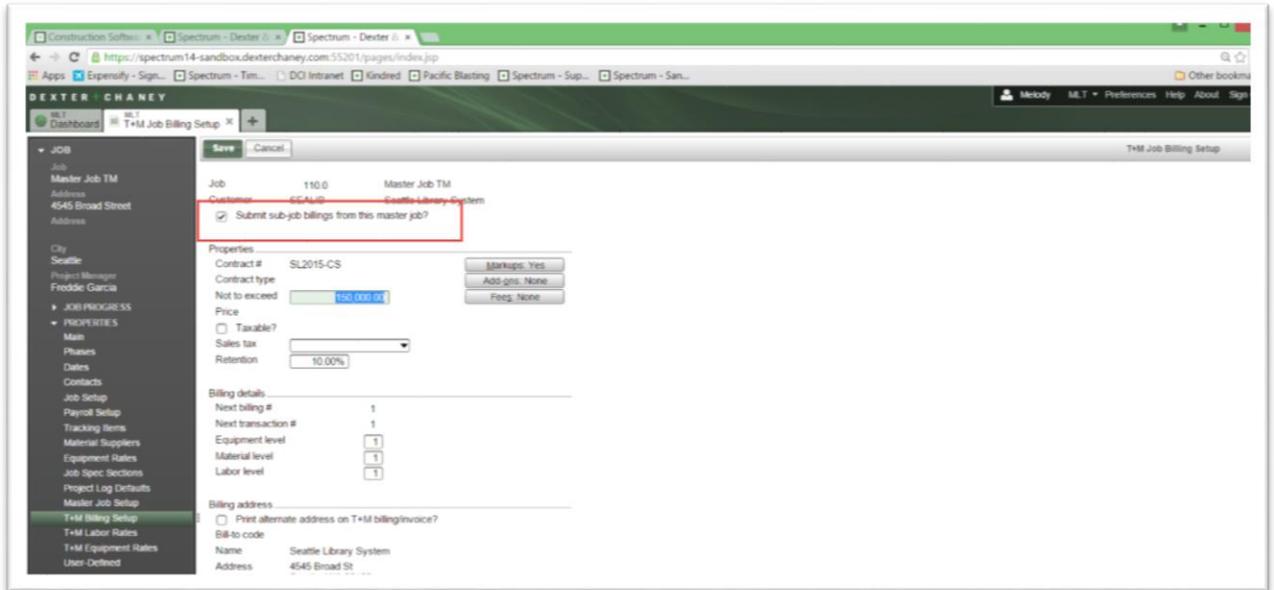


T+M Job Billing Setup

T+M and cost plus billing rules are set up in the master job.



An option has been added to 'Submit sub job billings from this master job'. No entry is allowed on the sub job when it is billed through the master job. No entry is allowed on the sub job T+M Billing Setup page when using the option to submit billings from the master job. If selected, the user will be prompted to view the Master Job instead. Additionally, you can set a 'not to exceed' amount at the master job level.



Auto-create Phase in Sub jobs

There is no need to copy all phases from the master job to the sub job. Instead, when the phase exists on the master job and you enter cost Spectrum will set the phase up for you. This allows reporting at the sub job level to display only those phases that actually have cost transactions.

Rules for Auto-creation of Phases:

The following rules are used to determine whether or not to auto create the phase in a sub job.

- Job entered is a valid sub job.
- The phase mask found in the job setup must match the master job.
- The phase + cost type already exist in the master job
- The phase + cost type is not set to a 'Complete' status.

When all of these are true, the phase and cost type will be automatically created in the background.

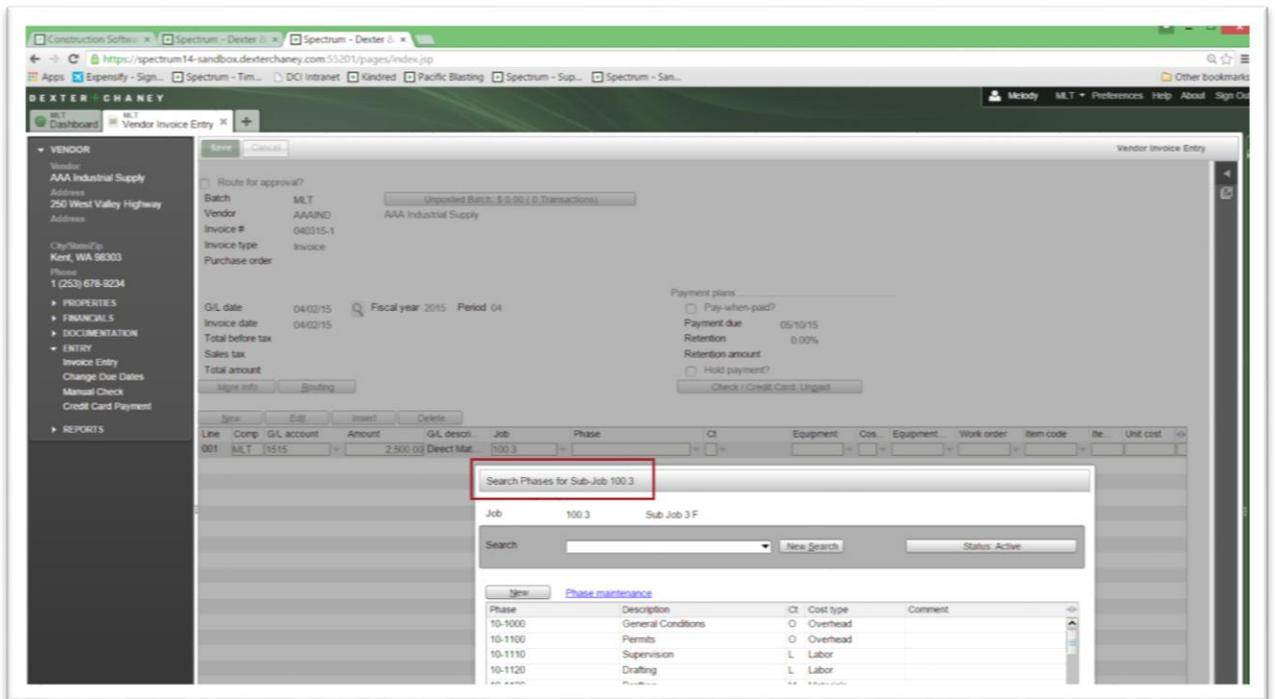
- No operator security for adding phases is required.
- No warning messages will be displayed.
- The status of the new phase will be set to active.
- The new phase will contain all of the setup data from the master's phase, not including estimate information.

Entry Screens that Auto-create Phases:

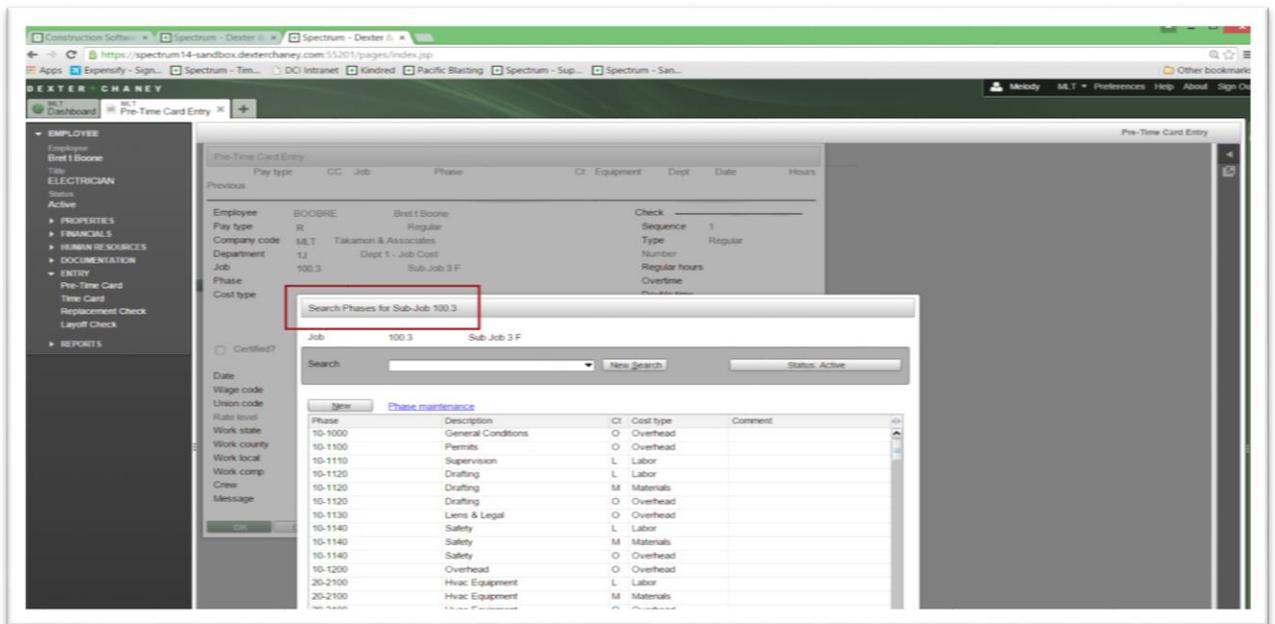
The following Data Entry screens will display the phases available in the master job. If the sub job has phases not available in the master job, phases from both jobs will appear.

- Time Card Entry
- My Time Entry
- Quantity Complete Entry
- Vendor Invoice Entry
- Invoice Approval
- Purchase Order Entry
- Job Cost Transaction Entry
- Subcontract Phase Details
- Change Request Entry
- Import Pre-Time Cards
- Import Purchase Orders

Vendor Invoice Entry:



Pre-Time Card Entry:



The 'Phase over-budget' warning message appearing in Accounts Payable and Purchase Order will read the 'Phase, Cost type' record in the sub job. Additionally, the subcontract 'revised contract exceeded' messages appearing in Accounts Payable will read billing items for the Phase, Cost type of the sub job.

T+M Billings

When billing from the master job, all transactions entered on the sub job will be recorded in the T+M module as if they were charged to the master job number.

TM Pre-Billing Report:

Takamori & Associates
Pre-Billing Report Sorted by Phase

SL Date	Type	Search#	Description	Time Date	Reference	Rate	Hours/Quantity	Extension	Markup	Total
Job: 110.0 Master Job TM										
Phase: 00-1000 Mobilization / Cost Type: L Labor										
04/02/15	PR	Yes	Mike Cameron	03/20/15	7095	Reg	57.000	8.00	456.00	456.00
04/02/15	PR	Yes	Mike Cameron	03/20/15	7096	Reg	57.000	8.00	456.00	456.00
04/02/15	PR	Yes	Mike Cameron	03/27/15	7096	Reg	57.000	8.00	456.00	456.00
04/02/15	PR	Yes	Mike Cameron	03/30/15	7096	Reg	57.000	8.00	456.00	456.00
04/02/15	PR	Yes	Mike Cameron	03/31/15	7096	Reg	57.000	8.00	456.00	456.00
						Subtotal for Cost Type: L Labor	48.00	2,280.00	0.00	2,280.00
Phase: 00-1100 Temp Power / Cost Type: L Labor										
04/02/15	PR	Yes	Jay Bulmer	03/20/15	7095	Reg	57.000	8.00	456.00	456.00
04/02/15	PR	Yes	Jay Bulmer	03/20/15	7096	Reg	57.000	8.00	456.00	456.00
04/02/15	PR	Yes	Jay Bulmer	03/27/15	7096	Reg	57.000	8.00	456.00	456.00
04/02/15	PR	Yes	Jay Bulmer	03/28/15	7096	Reg	57.000	8.00	456.00	456.00
						Subtotal for Cost Type: L Labor	32.00	1,824.00	0.00	1,824.00
Phase: 00-1200 Rough In / Cost Type: M Materials										
04/02/15	AP	Yes	AAA Industrial Supply	04/02/15	040215-2		1,300.00	195.00	1,495.00	
						Subtotal for Cost Type: M Materials	0.00	1,300.00	195.00	1,495.00
Phase: 00-1220 Feeder Wire / Cost Type: M Materials										
04/02/15	AP	Yes	AAA Industrial Supply	04/02/15	040215-3		1,750.00	262.50	2,012.50	
						Subtotal for Cost Type: M Materials	0.00	1,750.00	262.50	2,012.50

Modify Billing Screen: A new 'From sub job' column has been added to these records and is visible on the **Modify T+M Billing** screen.

Modify T+M Billing

Job: 110.0 Master Job TM
Customer: SEALIB Seattle Library System
Billing #: 001

Contract #: SL2015-CS
Contract type:
Transactions through: 04/02/15

Phase	Cl	ion	Markup	Bill amount	Taxable?	Code	Reference	P.O.#	Work d.	Invcheck date	Billing code	Phase de.	From sub-job
00-1200	M		1,300.00	195.00	1,495.00		AAAIN	040215-2		04/02/15	Rough In		110.1 (Sub Job 1 TM)
00-1220	M		1,750.00	262.50	2,012.50		AAAIN	040215-3		04/02/15	Feeder		110.2 (Sub Job 2 TM)

Master Job Inquiries and Reports

On inquiry screens and reports, entry of the master job will automatically roll up the sub jobs information as well.

Information rolled into master jobs:

- Open Commitments
- Period-to-date costs
- Job-to-date costs
- Projected costs
- Estimates

Cost Center Security Notes:

Summary Rule (S): When a user has security to view a master job, they also have security to view the summary totals of all sub jobs rolled up into the master job.

To access a sub job, a user must have cost center security for the cost center assigned to the sub job.

Detail Rule (D): The user will only be able to access the transactions that the operator has cost center security authorization for.

** Inquiries and Reports are notated with an S or D to indicate the applicable cost center rule.

Job-based Security Notes:

Spectrum will validate the job code entered in the heading of the page to assure the operator has permission for the selected job if 'Job-based security' is enabled in Job Cost Installation. When the user has access to the master job, they are also given access to the sub job, regardless of their job-based security settings.

** This is different from cost centers where there are two rules for summary and for detail.

Inquiry Screens:

- Job Cost History (D)
- Job Billing History (D)
- Contracts (D)
- Subcontracts (D)
- Job Materials (D)
- Job Contract Status (S)
- Cost Activity (S)
- Job Analysis (S)

Reports:

Select the 'Combine sub job activity into master job?' checkbox to roll sub job activity up into the master job.

- Contract Status Report (S)
- Job Billing History Report (D)
- Job Cost History Report (D)
- Job Cost Analysis Report (S)

Job Analysis Inquiry:

Job Analysis Inquiry page showing job details for Master Job F (Job 100). Key financial metrics are highlighted with red boxes:

- Revised contract: 412,000
- Committed cost: 3,709
- Job-to-date: 21,711
- Projected: 299,000
- Estimate: 299,000

Other visible data includes Cash flow (39,375), Gross profit (113,000), and Contract # AB2015-M.

Job Cost Analysis Reports:

Job Cost Analysis Report page showing report configuration options for Summary Job Cost Analysis Report. A red box highlights the checkbox 'Combine sub-job activity into master job?'. Other options include 'Use projected cost?', 'Include open commitments?', and 'Display graphs?'.

No Master Job Functionality Provided

The following is a list of reports and inquiries that do not support the master job functionality.

Item	Reasons Not Included	Recommendation
Billing Item Analysis Inquiry and Report	These two are designed to provide contract-specific information. As billing items may be different across sub jobs, it would not provide meaningful information.	Run multiple reports instead.
Profitability Report	There are many complex rules that must be addressed before revenue and profitability can be addressed.	Use the Contract Status Report instead.
Job Overview Report	There are many complex rules that must be addressed before revenue and profitability can be addressed.	Use the Contract Status Report instead.
Productivity Report	As different jobs may have phases with different units of measure, it would not provide meaningful information.	Run multiple reports instead.
Unit Cost Report	As different jobs may have phases with different units of measure, it would not provide meaningful information.	Run multiple reports instead.
Labor Analysis Report	This functionality is provided elsewhere.	Use the Job Cost History tree grid with the appropriate selections.
Summary Cost Report	This functionality is provided elsewhere.	Use the Job Cost History tree grid with the appropriate selections.
Payroll Hours Analysis Report	This report is intended to answer granular payroll concerns.	Recommend that the user start with the Job Cost History tree grid with appropriate selections and then use the Payroll Hours Analysis Report to drill into the specific sub job.
Job Comparison Report	This report was designed to compare phase costs across the user's list of jobs instead of analyzing master job issues.	Use the Job Cost History tree grid with the appropriate selections.