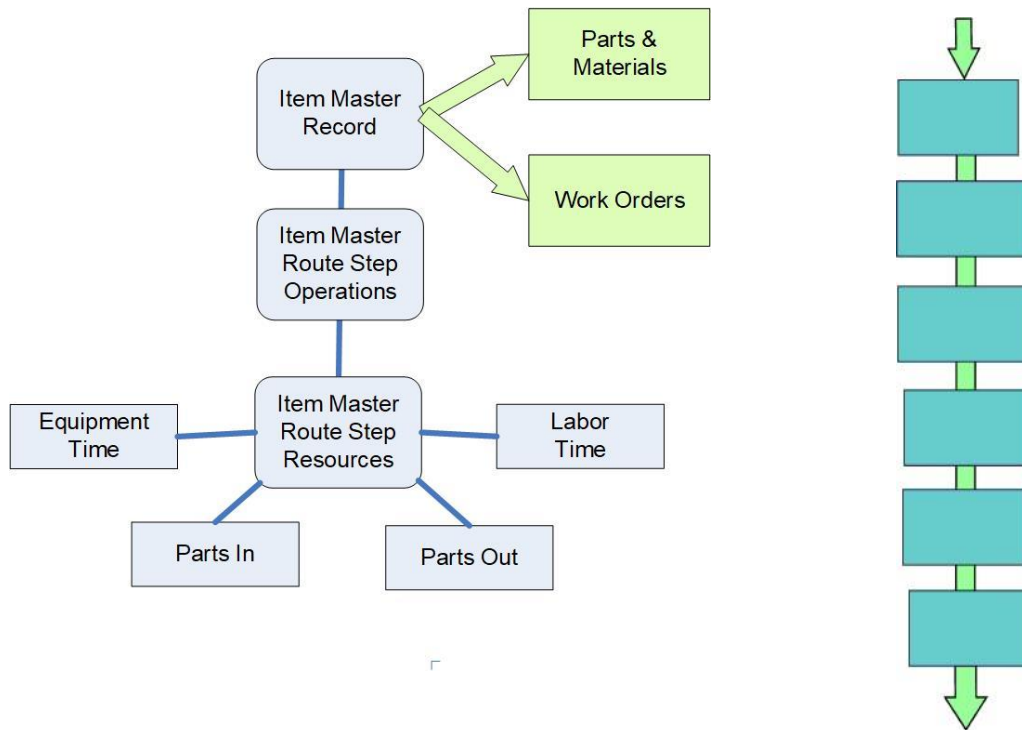


**KnarrTek Data Sheet**  
**Job and Materials Tracking System Bills of Materials**



JMTS stores parts lists, formulas, and recipes and general Bills of Materials (BOMS) as Part-in records for route step operations, stored in its database as part of Item Master records.



Like most manufacturing ERP systems JMTS uses the concept of routes of operations, used to make a product, which are tied to the item master record for the part being made. ERP systems, also typically have a Bill of Materials (BOM) for making the part, which applies to all operations in the route. JMTS, instead, has a BOM for each operation in the route, which enables materials to be picked and fetched for each operation, which may take place in different locations from each other. This BOM is stored as a list of Parts to be input to the operation, which may include WIP materials.

Each route step in JMTS, can also specify the parts, including WIP materials to be produced by that step as well as the labor hours expected to be consumed. The expected part-in and part-out quantities and labor hours are for a standard route quantity of the finished product.

An Item Master Record can then be used to generate a Work Order to make a specified quantity of the product, with scaled up part and labor quantities. This work orders, which are the same as

used by JTS, can be used to record when production starts and stops on each operation and the labor hours actually taken.

**Work Order**

*Importance:* Standard  
*Date Wanted:* 12/22/2015  
*Sales Order #:*  
*Customer:* CDE Furniture Manufacturers  
*Instructions:* Make Stainless Steel Knobs

  
**WO00000101**

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*Step Instructions:* Lathe

*Step #:* 1  
*Operation:* Production: Lathe

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*Step Instructions:* Drill and Tap

*Step #:* 2  
*Operation:* Production: Drill and Tap


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*Step Instructions:* Polish and Inspect


*Step #:* 3  
*Operation:* Production: Polish and Inspect



In JMITS, the Item Master BOMs are copied to the work order created from it, with scaled up quantities for the parts to be consumed on each route step in order to make the requisite number of finished products. These Work Order route-step BOMs can be used to generate Pick Orders, with a barcoded picking sheet, to pick a kit of parts and to bring them to the work-center where they are needed.



**KIT PICKING SHEET**

*Pick Order #* P000001  
*BOM* Window132  
*Description* For Window 132  
*From Facility* Raw Materials Warehouse  
*To Facility* Production



Item Number	Quantity	Quantity	Quantity
Item Description	Needed	Picked	To Be Picked
 TR32 TR32 Extrusion	1 ft	0 ft	1 ft
 SR32 SR32 Extrusion	1 ft	0 ft	1 ft

Work Order BOMs are also used to make it much easier to record materials in and out of route steps and to check that the correct materials are being used at each step in the manufacturing operation.

This use of Work Order BOMs also enables a comparison of actual versus expected manufacturing costs for each product made.

Recording materials in and out of each operation, also facilitates the capture of a materials traceability history data. This data can be used to track back from defective products to possible causes and to track forward from defective materials to all effected products and who they were shipped to.

Please note that tracking of machine time and inclusion of this in job costing and materials traceability is only available in KnarrTek WIPTracker custom solutions and is not included in JMTS.

Through the use of BOMs, KnarrTek JMTS can track the consumption of materials on each work order operation as well as the production of multiple materials, including WIP, as a result of each operation. KnarrTek can also record which materials were incrementally added to each assembly or kit, including lot and serial numbers.

JMTS BOMs also enable a comparison of actual versus expected costs for a job and tracking predicted available inventory.

### Commentary

The KnarrTek JMTS Materials Tracking System is based on the BellHawk real-time work-in-process, job and material tracking software platform, which is licensed by KnarrTek from Milramco LLC. For more details about the BellHawk Software Platform, please see the “BellHawk Software Handbook”, which describes this software in great detail.

### For more information

Please send an Email to [Sales@KnarrTek.com](mailto:Sales@KnarrTek.com) or see [www.KnarrTek.com](http://www.KnarrTek.com) for more details.

