The BOM Drop
Standalone plugin for iDempiere

THIS IS AN IROSES* GUIDANCE PAPER ON THE BEST WAY TO USE A FREE OPEN SOURCE ERP SYSTEM WITH MINIMAL MAINTENANCE COST. IROSES IS COMMITTED TO BEST PRACTICE THAT IS WELL DOCUMENTED, PROVEN AND WELL REVIEWED. IT MEANS FREEDOM HAS A RESPONSIBILITY TO BE BETTER AND ASSURED IN ITS QUALITY

iRoses e.V.

Institute for Research on Open Source ERP-Software
founded by Redhuan D. Oon

RED1's THREE LAWS:

Information is Free

YOU HAVE TO KNOW

People are Not

YOU HAVE TO PAY

Contributors are Priceless

YOU HAVE TO BE

The BOM Drop

Product Configurator lets you see the availability and total price before inserting all final components into an order.

By:

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Module mostly coded while in Mexico, finalised in Slovakia and documented in Germany.

Hiep Le Quy assisted in the radio group tree model interface.

This document itself was actually crafted while on the bus from Munich to Saarbrücken and finished up in room 309 of Meran Hotel, Saarbrücken.

November 23, 2015
version 0.1

"FREEDOM WITH RESPONSIBILITY"

IT IS IMPORTANT AND PARTICULARLY TRUE FOR OPEN SOURCE AND LIBRE SOFTWARE OF ERP TO BE IMPLEMENTED IN A PROPER AND EXPERT MANNER. TOO MANY HAVE FAILED AND RAN OFF WITH THE MONEY. FOR IT IS VERY EASY TO JUST DOWNLOAD, PUT ON A SUIT AND TIE, CARRY A SUITCASE AND TALK AS IF ONE IS AN EXPERT WHEN IN FACT IT IS NOT THE CASE. THE RESPONSIBILITY RESTS WITH THE CHAMPION AND LEADER OF THE PROJECT TO ALSO DISPENSE THE RIGHT KNOWLEDGE AND PROFOUND UNDERSTANDING ONE MUST HAVE IN ORDER TO AVOID THE OFTEN REPEATED MISTAKES THAT WILL BE COSTLY AND UNNECESSARY PAIN TO THE END USERS AND PUBLIC. SOME IMPLEMENTORS DISLIKE THIS POLICY AS IT WILL STOP THEM FROM MAKING FAST MONEY. IN FACT SOME EVEN FROWN SUCH BENEVOLENT CONDUCT AS BEEN COMMUNIST OR ANARCHIST AND NOT FRIENDLY TO DEVELOPERS WHO WISH TO SURVIVE. HOWEVER IN THE LONG TERM, THIS LAST DECADE TILL TODAY, ONE CAN SEE WHO IS SUSTAINABLE AND VISIBLE AND WHO HAS QUIT AND RAN OFF. UNDERSTANDABLY SUCH PEOPLE HIDE THEIR ACTIONS FROM PUBLIC KNOWLEDGE, PRODUCE QUITE NOTHING, AND CAPABLE OF ALMOST NOTHING. ARE THEY RIGHT TO TAKE FROM FREE SOFTWARE AND HIDE THEIR MISTAKES? WHO OWES WHO THE EFFORT AND INVESTMENT? SUCH PEOPLE ARE PART OF THE PROBLEM IN A WORLD SUFFERING FROM NOT OWNING UP WHAT HAS BEEN SHARED TO THEM. THEY WILL STOP AT NOTHING TO HIT OUT AND CAUSE DAMAGE TO THOSE WHO PRACTICE ETHICALLY FOR THE GOOD OF ALL, AS A LONG TERM SUCCESS THAT NURTURED A POWERFUL COMMUNITY.

IT IS TIME TO BE RESPONSIBLE AND POINT SUCH PEOPLE AND THEIR ACTIONS OUT SO THEY ARE STOPPED FROM CAUSING MORE DAMAGE. HTTP://RED1.ORG/BLACKPAPER.PDF (2ND VOLUME EDITION IN PROGRESS).

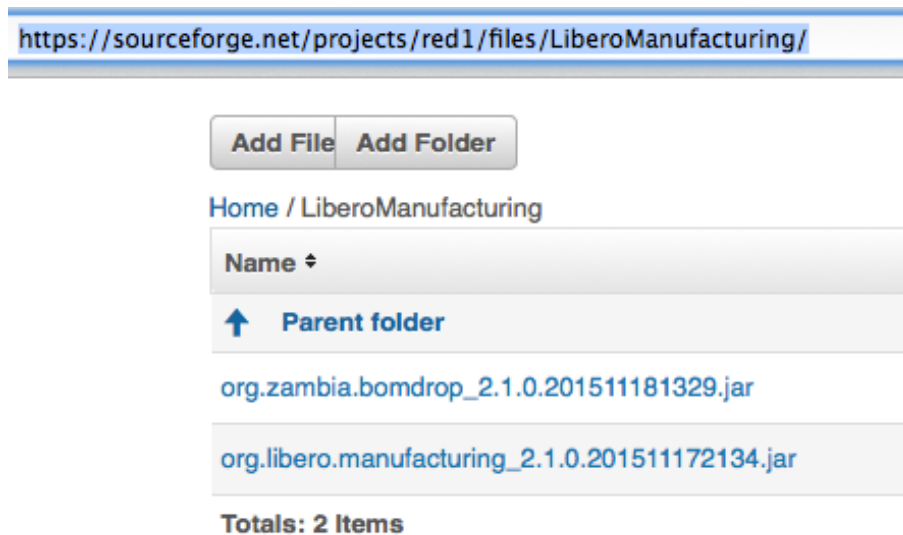IF YOU DO NOT BELIEVE WHAT I SAY YOU CAN SEND YOUR DOUBTS AND PROOF TO ME AT RED1@RED1.ORG

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Everything In One BOM

Download plugin

Go to: http://sourceforge.net/projects/red1/files/LiberoManufacturing/

In your iDempiere Felix console or 'ss' OSGi console, install:

org.zambia.bomdrop<time-stamp>.jar

As a stand-alone with no Libero Manufacturing needed. Then follow the Step-By-Step section below.

Description

BOM Drop is a product configurator for a build of materials (BOM) of a product that is structured as a list of raw materials (if used in a production) or component parts (if used in a Sales Order or Project Order) with intermediate sub assembly in unlimited fashion if required.

A BOM configurator as the name suggests, assists in the makeup or designing of a parent product from any combination of components.

A BOM is useful also in a general costing sense whether a product is available and broken down into its costing units, that can include not just items but resources or overhead.

The BOM can have roll up of such costs into a total cost and this allows more exact costing of the product particular in a Project Order where the sales margin is displayed.

Features

1. Advanced version from the very limited and simplistic Compiere origin. It is also a completed version of the Libero BOM Drop design that remains incomplete in ADempiere.

2. Installed as a standalone ready to work plugin with no core impact to iDempiere.

3. It is also included in the Libero Manufacturing plugin also completed under sponsorship from SYSNOVA.

4. Highly visual form for use both in Swing UI (Libero Swing plugin) and ZK UI (this plugin.)

5. Allows the user to see the availability and total price before inserting all final components into an order.

6. Roll up sum total view to any intermediate parent in the tree.

7. Source code under GPL open source license for peer review and improvement or debugging purpose.

8. Well documented and reviewed under **red1**'s iROSES doctrine of freedom with responsibility.

Functions

1. Each component can be defined as standard mandatory, optional, variant or a radio group.

2. Version of Price list can be selected from a pull down list.

3. Project Order drop can be at the Phase and Task level of a Project.

4. Total quantity and total price columns to reflect only selected or effective items.

5. Non selected items are zeroed as not counted in the grand total price.

6. Variant type allows user to input another quantity value.

7. Radio group has its first member item pre-selected. Selecting another will deselect other members.

8. Different types can be at a higher level in the BOM tree and cascade its effect to its children and all descendants.

Further Resources

1. The forum link describing the evolving developmental work on the BOM is at http://red1.org/adempiere/viewtopic.php?f=45&t=1775&start=50 (Go here if you have trouble or questions using this plugin. Register first and send email to me to approve it - red1org@gmail.com)

2. A YouTube movie describing its functions is at http://youtu.be/C4ySDXIF6NM.

Overview How To Use

1. After installing, you should find the BOM Drop menu in your Client login.

2. First you can define your BOM product in the Bill of Materials & Formula window.

3. After defining, you can use it in the BOM Drop to configure and preview before dropping it into a draft Sales Order or other documents.

Installation

Step By Step

1. Take the downloaded plugin and save in any location.

2. Launch your iDempiere and access your Felix console (click on the gear icon of the first browser display). Login credentials should be SuperUser/System.
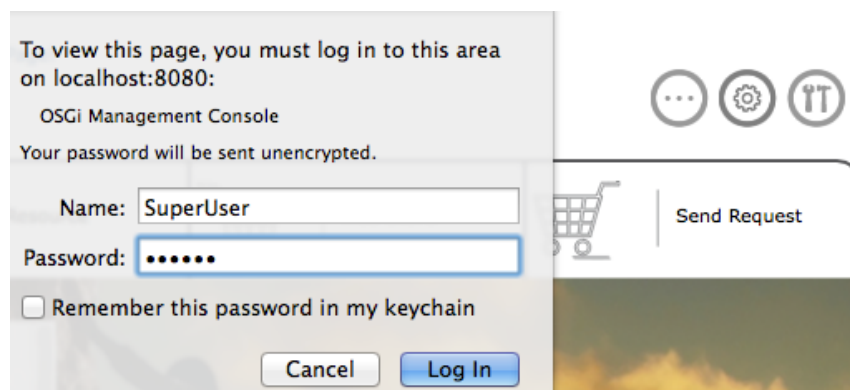
3. Click on the Install/Update button and Choose File for your plugin.
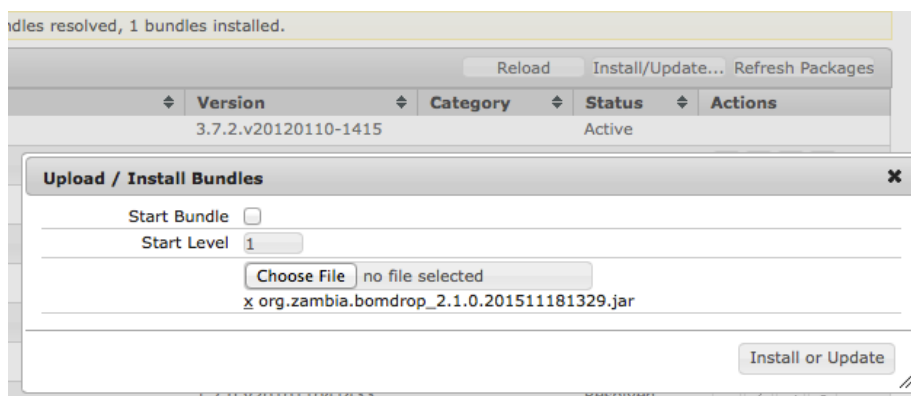
4. Select Start Bundle and OK the Install or Update button on lower right. (If you did not check the Start Bundle box, you can start it later after its installed).

5. In some seconds the pop up will close and you can see if it is in Resolved or Active state. (If it is in Installed state, means there is some jar dependency error and it is not working). Refresh your page to check if 'zambia' is in it. Below shows it in Active state.

6. If it is in Resolved state, press the play icon to start it.

7. Go to your browser and login to the ZK user interface.

8. Login as SuperUser/System and select GardenWorld Admin or your own new client.

9. You can find in the new menu drop down the BOM Drop sub menu.

10. There are two items in it and they are BOM Definition and BOM Drop Configurator.

11. You can drag it to the left panel to make them as short-cuts for convenient use.

12. Watch the Youtube movie to see how it works.
    http://youtu.be/C4ySDXIF6NM

13. Follow the forum link above for development or sharing or asking newbie questions.

14. You can try the Back Leg Assembly as I done below.
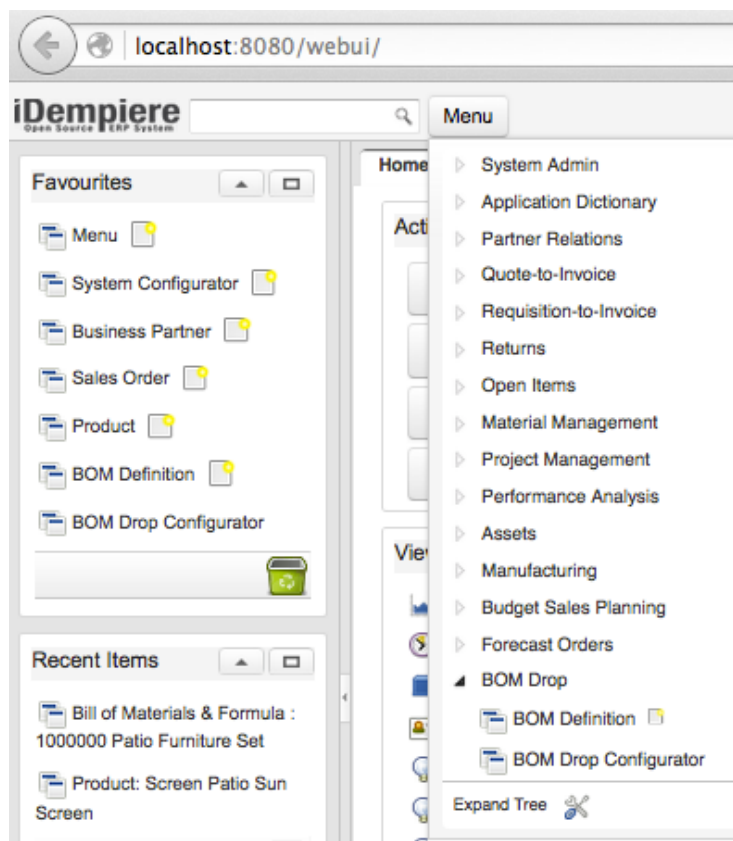
15. I have to create a new Sales Order in order for it to appear in the Order list.

16. I have zero pricing because those products have no Price List Version values yet. I go to their product windows and in their price tabs, define their Standard Price.

17. Then return to the Product Configuration BOM (BOM Drop) window to select the Price list and choose again the Assembly Back Leg.

18. Remember to select the Standard 2003 Price List first in the Price pull down list.

19. Notice this time I left out the last item's price.

20. When i press the OK button, I get an error.

21. I corrected it by returning to the Product Price tab for Glue and fill in a price. Note you have to set a lower price limit for Glue at 0.50 due to some discount setting. The standard price is at 0.60.

22. Now when I clicked the OK button to drop to the selected Sales Order 50000.
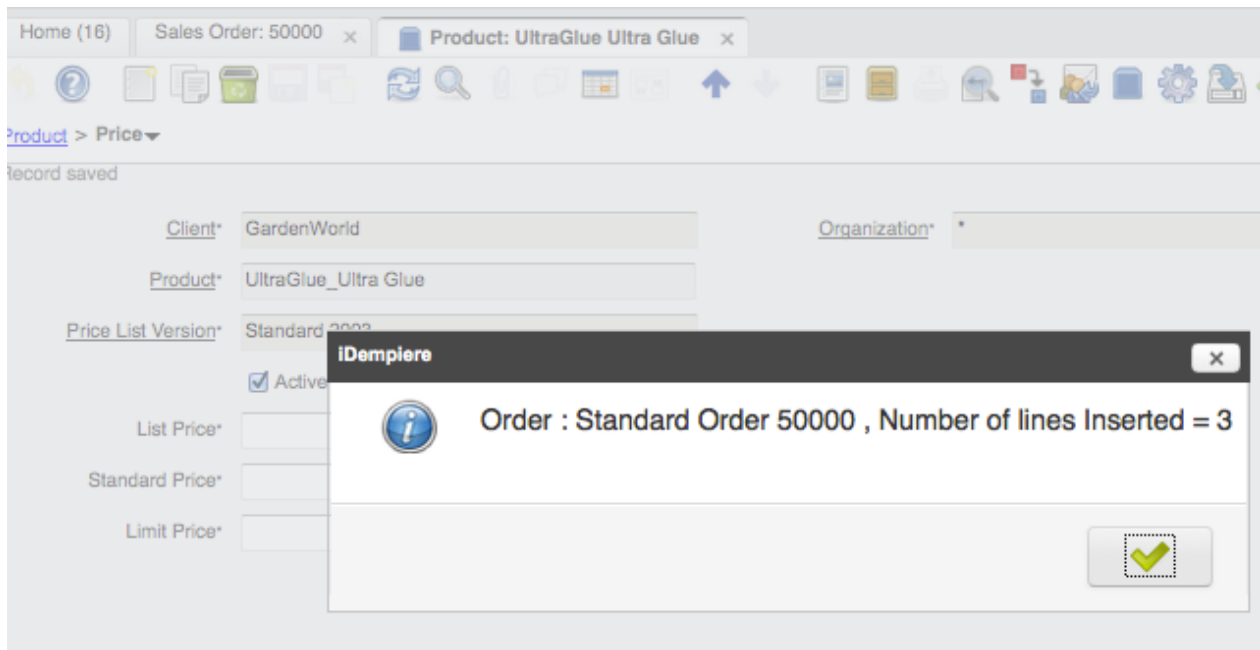
23. It works and when I opened the Sales Order 50000, I see the same expected result lines but notice that the last item, glue has the discount 5% in effect.

24.

This concludes a simple test that it works. You can try the one in the movie by filling in all the item prices and make some changes to the configuration and see the magical results.

Below shows the full Patio Furniture Set played around and dropped.

Home (175)	Product Configuration BOM ✕				

Selection

Product	Patio Furniture Set ⇕		Quantity	1.0
Order	50003_334.00 ⇕		Price	Standard 2003 ⇕
Invoice	⇕			
Project	⇕			
Project Phase	⇕		Project Task	⇕

Grand Total Price: 334.00   ✓   ✗

Patio Furniture Set	Available	Quantity	Price	Total Quantity	Total Price
☑ Patio Table	12	1.0	67.50	1.00	67.50
▲ ☑ Patio Chair	30	4.0	33.75	4.00	**244.00**
☑ Seat	0	1.0	21.00	4.00	84.00
☑ Back Support	0	1.0	5.00	4.00	20.00
▲ ◉ Assembly Back Leg	0	1.0	0.00	4.00	**140.00**
◉ Back Leg	0	2.0	13.00	8.00	104.00
○ #6-32 x 3/8 Socket Head Cap Screw	0	8.0	0.12	0.00	0.00
☑ Ultra Glue	0	10.0 🖩	0.90	40.00	36.00
▲ ○ Assembly Front Leg	0	1.0	0.00	0.00	**0.00**
☑ Front Leg	0	2.0	14.00	0.00	0.00
☑ #6-32 x 3/8 Socket Head Cap Screw	0	8.0	0.12	0.00	0.00
☑ Ultra Glue	0	650.0	0.90	0.00	0.00
☑ Patio Sun Screen	15	1.0	22.50	1.00	22.50

The Sales Order showing in its Order Line tab, the dropped items from the BOM Drop Configurator.

Home (175)	Product Configuration BOM ✕	Sales Order: 50003 ✕			

Order   ⏮ ◀ 1/2 ▶ ⏭

6 Lines - 334.00 - Total: 334.00 USD = 334.00

Campaign	▼

▲ Status

Total Lines*	334.00	Grand Total*	334.00
Document Status*	Drafted	Document Type*	** New **
	☐ Pay Schedule valid		⚙ Document Action

Order Line | Order Tax | Payment Schedule

6 Records

☐	Line	Product	Description	Quantity	UOM	Price	Unit Price	List Price	Line Amount	Tax
☐	10	PTable_Patio Table		1	Each	67.50	67.50	66.00	67.50	Standard
☐	20	Seat_Seat		4	Each	21.00	21.00	21.00	84.00	Standard
☐	30	BackSupport_Back Support		4	Each	5.00	5.00	5.00	20.00	Standard
☐	40	BackLeg_Back Leg		8	Each	13.00	13.00	13.00	104.00	Standard
☐	50	UltraGlue_Ultra Glue		40	Mililiter	0.90	0.90	0.90	36.00	Standard
☐	60	Screen_Patio Sun Screen		1	Each	22.50	22.50	22.00	22.50	Standard