

Using ShopFloorManager's

Pricing

Application

Release Date 4/12/2021

Pricing Application

Overview

If your responsibilities not only include purchasing a Factory Automation System which minimally handles Machine Communications (usually called a DNC System) but includes the whole project it would be nice to have an Application for pricing various hardware, software, materials, and various system configurations to meet your company's requirements whether supplied in-house and or external.

That was part of the motivation for developing a Pricing Application not only to include the "DNC" Software but all of the materials, hardware, software & expenses both internal and external to your company!

We believe we have developed such an App to aid in the whole Procurement Process that most Factory Automation providers don't address.

As we have dealt with Customers since 1983 we have always been asked about our suggestions regarding what a Factory Automation System needs, where to purchase the needed materials, hardware, software, etc. and the system configurations, installation costs & labor needed to complete the System.

In the beginning the choices for hardware were limited as some of the hardware had to be produced by individual suppliers and were not off the shelf and Networks were limited and in their infancy! We in fact had to design and manufacture Behind the Tap Reader (BTR) hardware. This was expensive for us and our customers, offering them limited choices.

As time passed Machine Tools & Networks became more advanced and the need for specialized hardware ended. Some DNC Companies still supply special hardware, but these are not needed as there are equivalent hardware offerings available in the market place. Actually, in some cases these DNC Companies' hardware may not meet international standards and or they take an existing brand and repackage it as their own! We don't do that!

At present it doesn't make sense to buy hardware that is not produced by international companies since their support & replacement options can't be matched by a specific DNC supplier!

Since everything needed for a factory automation system is available on the market the conditions are right for creating a Pricing Application that is based on off-the-shelf hardware, networks, materials, etc. that can account for virtually any company's hardware & software requirements.

The total potential variations in costs for a factory automation system are often obfuscated if not layout in one place! Our Application removes these obfuscations offering all of selections in one place and address the total costs associated with in house personnel vs using both in house and external.

The more done in-house will reduce costs and minimize interference with third-party personnel. It will also provide a better understanding of the system structure resulting in less reliance of third-party personnel. When you're down you won't need to rely on third-party support which results in getting production up & running quicker! Let's see how the Pricing Application Works!

For a Pricing Application to be useful it must address the following:

1. **Must be able to price a new system from scratch**
 - a. Offer multiple hardware options
 - b. Offer multiple network options
 - c. Offer multiple configuration options to meet a customer's specific needs
 - d. Offer in house and or vs third-party services
2. **Must be able to price for updating an existing system**
 - a. Recreate an existing system allowing modifications to account for changes only
 - b. Offer all of the options available in Item 1 above!
3. **Must be able to compare different Systems Costs**
4. **Must provide a Payback Analysis in real-time**
5. **Must be very flexible to meet any situation**

Pricing Application (Sections 1 & 2 Using Competitor's Software)

Create Starter System
Modify=> Wireless RS232/Ethernet CNCs: RS232 Cable CNCs: Ethernet Cable CNCs:

Quote Options:	Option 5	Option 1	Option 2	Option 3	Option 4	Option 5	Quote Code	Call CCI for Code!	
Competitor Software Cost:	\$ 25000	Enter cost of Competitor's DNC System					Average Cost Competitor's License: \$200.00		
Competitor Maintenance Cost:	\$ 3250	Enter Competitor's Yearly Maintenance cost							
OnSite CNC Parameter Costs:	\$33750.00	\$0.00	\$17550.00	\$21600.00	\$29700.00	\$33750.00	On-Site Set CNC Parameter & Up/Downloading Costs.		
OnSite Moxa Parameter Costs:	\$4218.00	\$0.00	\$0.00	\$4218.00	\$0.00	\$4218.00	On-Site Moxa Parameter Setting Costs.		
On-Site Install Costs:	\$8475.00	\$0.00	\$4635.00	\$5820.00	\$7740.00	\$8475.00	On-Site Costs: Hotel, Car, Meals, AirFlight, etc.		
In-Plant Hardware Costs:	\$35326.00	\$35326.00	\$35326.00	\$35326.00	\$35326.00	\$35326.00	In-Plant Purchased Hardware Costs!		
In-Plant Material Costs:	\$10750.00	\$10750.00	\$10750.00	\$10750.00	\$10750.00	\$10750.00	In-Plant Material Costs for Installation!		
InPlant CNC Parameter Costs:	\$0.00	\$3125.00	\$0.00	\$0.00	\$0.00	\$0.00	In-Plant Set CNC Parameters & Up/Downloading Costs.		
InPlant Moxa Parameter Costs:	\$0.00	\$1250.00	\$1250.00	\$0.00	\$1250.00	\$0.00	In-Plant Set/Test Moxa Parameters Costs.		
In-Plant Install Costs:	\$2000.00	\$5750.00	\$5750.00	\$5750.00	\$2000.00	\$2000.00	In-Plant Installation Costs!		
In-Plant Other Costs:	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	In-Plant Internal Work Costs: IT, Maintenance, etc.!		
Total Client Cost:	\$120019.00	\$81701.00	\$100761.00	\$108964.00	\$112266.00	\$120019.00	Cost Savings using Remote Installation: \$38318.00		

Note: To view the different Quoting Options in the Row above move the mouse over each Option for description!

----- Start of ShopFloorManager Related Costs -----

Total Machines: **The Base System starts with 10 Machines & Requires Remote Installation!**

Hardware Support(0/No;1/Yes): **Your Cost \$ 300** For Annual Maintenance for Analyzing Hardware Problems (Doesn't include Replacement)

Filezilla Support(0/No;1/Yes): **Your Cost \$ 100** For Annual Maintenance for FTP Server Support.

Qty of ShopDNC Licenses: **Includes: ShopDNC**

Qty ShopOperations Licenses: **Includes: ShopDocuments & ShopOperations**

Qty ShopMonitoring Licenses: **Includes: ShopMonitoring**

----- End of ShopFloorManager Related Costs -----

With those goals in mind let's get started using the Pricing Application!

The very first thing that needs to be done is to select the number of machines in the categories: **Wireless RS232/Ethernet; RS232 Cable CNCs; Ethernet Cable CNCs**. Use the mouse to highlight each category entering the appropriate # of machines. The Application automatically updates all sections!

Note: After setting machine numbers don't change them or you will need to start over!

Pricing Application (Sections 1 & 2 Using Competitor's Software Cont.)

Now you need to enter the Cost of the Factory Automation Software (**Competitor's Software Cost** Input Cell) and if applicable the Cost of the yearly Maintenance (**Competitor's Maintenance Cost** Input Cell).

Note: Nothing else in this section can be changed unless you use a **CCI supplied Quote Code** to activate the Pricing App for quoting the factory automation software ShopFloorManager! Addressed later!

At this stage you should modify the Payback Section by adding your estimated savings in the four available categories. Entering data in these categories will automatically updating the payback analysis in real-time.

If you were to accept all of the preconfigured settings including the modifications to Payback Savings that is all you need to do! You could then capture the applications settings & outputs and you are complete. Take it back to your people with all of the hardware, material, labor, payback analysis, etc.

What would this quote & system configuration address? This "**Quote 1**", there are 5 base Quote Categories, would assume that everything is done in house! You would not be using third-party personnel in house for anything. You would be using third-party personnel for online training! If you feel you need third-party personnel for in-house training, you can configure the App to account for any level of modification!

Pricing Application (Section 3 Using Competitor's Software)

***** Start of Using DNC Personnel for On-Site Installation Costs *****	
Use On-Site Personnel?	1 Yes(1) No(0). Select (1) if you are using On-Site Personnel(DNC vendor) for Installation!
Set OnSite Personnel#:	1 The number of On-Site Personnel(DNC vendor) setting CNC Parameters, Testing up/downloading, etc.
Set RS232 CNCs/Day:	10 RS232 CNCs On-Site Personnel(DNC vendor) can set CNC Parameters & Test up/downloading.
Set Ethernet CNCs/Day:	10 Ethernet CNCs On-Site Personnel(DNC vendor) can set CNC Parameters & Test up/downloading.
Set Wireless CNCs/Day:	10 Wireless CNCs On-Site Personnel(DNC vendor) can install, set CNC Parameters and Test up/downloading.
Set Days/Week:	5 Set the Number of Days in a Week for On-Site Personnel(DNC vendor).
Install Moxas On-Site?	1 Yes(1) No(0). Select (1) for using On-Site personnel(DNC vendor) to install Moxas using Moxa Installation Kits!
Set Moxa Parameters:	1 Yes(1) No(0). Select (1) for using On-Site Personnel(DNC vendor) to setup Moxas Parameters to attach to Access Point.
On-Site Install Days:	25 Enter Cost \$ 1350 per day for each Service Personnel; "Note: The Average # of Machines Complete/Per Day:" 5.0
On-Site Hotel Days:	25 Enter Cost \$ 125 of one Night Hotel Stay
On-Site Meal Days:	25 Enter Cost \$ 50 of One Day of Meals
On-Site Car Days:	25 Enter Cost \$ 70 of One Day of Car Rental
Airfare Expenses:	5 Enter Cost \$ 450 of Airfare Expenses
Miscellaneous Costs:	1 Enter Cost \$ 100 of Miscellaneous Expenses
Adjustment Costs:	1 Enter Cost \$ 0 for Expense Adjustments! I.E. Varying On-Site Personnel Costs, etc.
***** End of Using DNC Personnel for On-Site Installation Costs *****	

If you were only going to use in-house personnel, the "Use On-Site Personnel?" selection would be 0 and all of the labels would be **black** and non-changeable until the "Use On-Site Personnel?" selection is set to 1! Then all the labels are set to **red** with the exceptions of "Install Moxas On-Site?" & "Set Moxa Parameters" which need to be chosen manually. **Red** indicates you may be able change the settings if allowed. The explanations following the input cell explain what you can do! Changing these affects the Costs! You will also notice the Costs associated for Labor, Hotels, etc. are settable to match your costs! This of course affects the System Quote which is updated in real-time as you make the changes!

Pricing Application (Section 3 Using Competitor’s Software Cont.)

Changing the “**Set OnSite Personnel**” to greater than 1 will change the “**On-Site Install Days**” and may affect other settings such as Airfare Expenses, etc. This update happens in real-time! Why would you add additional third-party personnel? This will reduce the number of “**On-Site Install Days**” resulting in fewer productions interruptions. It may increase costs slightly!

Pricing Application (Sections 4)

***** Start of Using In-House Personnel for In-Plant Installation Costs *****

Hourly In Plant Rate \$	50	Enter the Hourly Rate charged for labor in your Shop!
Access Point (0-10):	4	Enter Cost \$ 503 for one Access Point(used for Moxa Units): Access Points ; Shop View ; Access Point Devices Supported :
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one Access Point
DeviceMaster 1 (0-250):	0	Enter Cost \$ 173 for one DeviceMaster RTS 1: Comtrol Hubs ; Shop View
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one DeviceMaster RTS 1
DeviceMaster 4 (0-63):	0	Enter Cost \$ 435 for one DeviceMaster 4: Comtrol Hubs ; Shop View
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one DeviceMaster 4!
DeviceMaster 8 (0-32):	2	Enter Cost \$ 707 for one DeviceMaster 8: Comtrol Hubs ; Shop View
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one DeviceMaster 8!
DeviceMaster 16 (0-16):	0	Enter Cost \$ 996 for one DeviceMaster 16: Comtrol Hubs ; Shop View
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one DeviceMaster 16!
DeviceMaster 32 (0-8):	0	Enter Cost \$ 1482 for one DeviceMaster 32: Comtrol Hubs ; Shop View
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one DeviceMaster 32!
RS232 Cables (0-250):	13	Enter Cost \$ 80 Cat5E Slimline Boot PVC Shielded Solid Gray Jacket 150 FT: Click GrayBar
Installation Hours:	1	Enter Cost \$ 50 of the Materials for Installing one RS232 Cable!
Set CNC Parameters:	0.5	Enter the hours to set the Parameters & Test up/downloading for one RS232 CNC!
Moxa Wireless (0-250):	100	Enter Cost \$ 299 for one Moxa Wireless to RS232 or Ethernet Unit: Moxa
Installation Hours:	0.75	Enter Cost \$ 80 for one Moxa Installation Kit that is used to install the Wireless Moxa Units
Set CNC Parameters:	0.5	Enter the hours to set the Parameters & Test up/downloading for one Wireless CNC!
Set Moxa Parameters:	0.25	Enter the hours to set & test the Moxas Parameters for the Network & Access Point!
Ethernet Cable (0-250):	12	Enter Cost \$ 80 for one Ethernet Cable to Machine Tool
Installation Hours:	1	Enter Cost \$ 50 of the Materials for Installing one Ethernet Cable!
Set CNC Parameters:	0.5	Enter the hours to set the Parameters & Test up/downloading for one Ethernet CNC!
Other Internal Costs (0-1):	1	Enter Cost \$ 500 of any Internal Costs such IT(Network: Switches, etc.), Maintenance, etc. to Complete Project

***** End of Using In-House Personnel for In-Plant Installation Costs *****

This section is used for inputting in-house costs such as materials, hardware, installation, labor, IT, etc. It also allows changing installation hours, parameter setting hours, hardware quantities(**more later**), etc. The hardware costs were taken from existing retail pricing so they should be accurate, but you can change as needed. The labels in **red** are used for calculating on-site third-party personnel costs and are modifiable. If they are **black**, they only apply to in-house! Making a change to these non-material settings may not change the Costs! The reason is the total change that affects costs come in increments of 8-hour chunks since third-party personnel get a whole day’s pay even if they are there for 1 minute!

For gathering the in-house costs of the hardware, installation & materials you will need to talk to your IT & Maintenance Personnel. You can check third-party hardware vendors, see links above, for other hardware costs! These can then be used to make the needed changes in the section above and elsewhere. Whether you use this App or not you are going to need to gather these costs!

You can use the Graphics in this manual to reference which items and associated costs you need to gather from in-house and external sources before using this Pricing App for a final “Report”!

Pricing Application (Sections 5 & 6 Using Competitor's Software)

Start of Payback Analysis

Target Rate of Return <input type="text" value="10"/> % User Modifiable	Savings per Year \$ <input type="text" value="32000"/> Read only! Quote Option 5								
Hardware Failure Rate/Year <input type="text" value="5"/> % User Modifiable	Enter Dollars Saved(Whole Numbers) per Year in the Categories Below								
Yearly Cost of Maintenance <input type="text" value="\$3250.00"/> Read only!	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 12.5%;">Quality</td> <td style="width: 12.5%;"><input type="text" value="9000"/></td> <td style="width: 12.5%;">Mfg. Eng.</td> <td style="width: 12.5%;"><input type="text" value="8000"/></td> <td style="width: 12.5%;">Shop Floor</td> <td style="width: 12.5%;"><input type="text" value="7000"/></td> <td style="width: 12.5%;">Other</td> <td style="width: 12.5%;"><input type="text" value="8000"/></td> </tr> </table>	Quality	<input type="text" value="9000"/>	Mfg. Eng.	<input type="text" value="8000"/>	Shop Floor	<input type="text" value="7000"/>	Other	<input type="text" value="8000"/>
Quality	<input type="text" value="9000"/>	Mfg. Eng.	<input type="text" value="8000"/>	Shop Floor	<input type="text" value="7000"/>	Other	<input type="text" value="8000"/>		

Year	Cash Out	PV Cash Flows	Net PV
2021	\$-120019.00	\$-88019.00	\$-88019.00
2022	\$-5017.00	\$24530.00	\$-63488.00
2023	\$-5017.00	\$22900.00	\$-41187.00
2024	\$-5017.00	\$20273.00	\$-20913.00
2025	\$-5017.00	\$18430.00	\$-2482.00
2026	\$-5017.00	\$16754.00	\$14272.00
2027	\$-5017.00	\$15231.00	\$29503.00
2028	\$-5017.00	\$13846.00	\$43349.00
2029	\$-5017.00	\$12588.00	\$55937.00
2030	\$-5017.00	\$11443.00	\$67380.00
2031	\$-5017.00	\$10403.00	\$77783.00
2032	\$-5017.00	\$9457.00	\$87240.00
2033	\$-5017.00	\$8597.00	\$95837.00
2034	\$-5017.00	\$7816.00	\$103653.00
2035	\$-5017.00	\$7105.00	\$110758.00

Yearly Savings Using ShopFloorManager

Category	Percentage
Quality	28.1%
Engineering	25%
Manufactur...	21.9%
Other	25%

Payback Chart: Option 5

Net Present Value & Payback Analysis

in dollars (USD)

Year	Present Value (USD)	Net Present Value (USD)
2021	-100000	-100000
2022	25000	-75000
2023	20000	-50000
2024	18000	-25000
2025	16000	0
2026	15000	25000
2027	14000	50000
2028	13000	75000
2029	12000	100000
2030	11000	125000
2031	10000	150000
2032	9000	175000
2033	8000	200000
2034	7000	225000
2035	6000	250000

End of Payback Analysis

This Section's only inputs are the Savings Categories, the "Target Rate of Return" & "Hardware Failure Rate/Year". These affect the Payback Analysis. As you input the settings the Analysis & Graphs are update in Real-Time! This section lets you know if this \$\$ investment produces the returns necessary to justify the Factory Automation Expenditure. There may be other criteria then \$\$!

Pricing Application (Sections 1 & 2 Using ShopFloorManager's Software)

Create Starter System Modify=> Wireless RS232/Ethernet CNCs: RS232 Cable CNCs: Ethernet Cable CNCs:

Quote Options:	Option 5	Option 1	Option 2	Option 3	Option 4	Option 5	Quote Code	Call CCI for Code!
ShopFloorManager Costs:	\$28720.00	\$28720.00	\$28720.00	\$28720.00	\$28720.00	\$28720.00	Average Cost ShopFloorManager License:	\$229.00
Remote Installation Costs:	\$2500.00	\$2500.00	\$2500.00	\$2500.00	\$2500.00	\$2500.00	Eliminate All On-Site Costs using Remote Installation!	
Maintenance Costs:	\$4134.00	\$4134.00	\$4134.00	\$4134.00	\$4134.00	\$4134.00	SFM Maintenance is \$Free for the First Year!	
OnSite CNC Parameter Costs:	\$33750.00	\$0.00	\$17550.00	\$21600.00	\$29700.00	\$33750.00	On-Site Set CNC Parameter & Up/Downloading Costs.	
OnSite Moxa Parameter Costs:	\$4218.00	\$0.00	\$0.00	\$4218.00	\$0.00	\$4218.00	On-Site Moxa Parameter Setting Costs.	
On-Site Install Costs:	\$8475.00	\$0.00	\$4635.00	\$5820.00	\$7740.00	\$8475.00	On-Site Costs: Hotel, Car, Meals, AirFlight, etc.	
In-Plant Hardware Costs:	\$35326.00	\$35326.00	\$35326.00	\$35326.00	\$35326.00	\$35326.00	In-Plant Purchased Hardware Costs!	
In-Plant Material Costs:	\$10750.00	\$10750.00	\$10750.00	\$10750.00	\$10750.00	\$10750.00	In-Plant Material Costs for Installation!	
InPlant CNC Parameter Costs:	\$0.00	\$3125.00	\$0.00	\$0.00	\$0.00	\$0.00	In-Plant Set CNC Parameters & Up/Downloading Costs.	
InPlant Moxa Parameter Costs:	\$0.00	\$1250.00	\$1250.00	\$0.00	\$1250.00	\$0.00	In-Plant Set/Test Moxa Parameters Costs.	
In-Plant Install Costs:	\$2000.00	\$5750.00	\$5750.00	\$5750.00	\$2000.00	\$2000.00	In-Plant Installation Costs!	
In-Plant Other Costs:	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	In-Plant Internal Work Costs: IT, Maintenance, etc.!	
Total Client Cost:	\$126239.00	\$87921.00	\$106981.00	\$115184.00	\$118486.00	\$126239.00	Cost Savings using Remote Installation:	\$38318.00

Note: To view the different Quoting Options in the Row above move the mouse over each Option for description!

***** Start of ShopFloorManager Related Costs *****

Total Machines: The Base System starts with 10 Machines & Requires Remote Installation!

Hardware Support(0/No;1/Yes): Your Cost \$ 300 For Annual Maintenance for Analyzing Hardware Problems (Doesn't include Replacement)

Filezilla Support(0/No;1/Yes): Your Cost \$ 100 For Annual Maintenance for FTP Server Support.

Qty of ShopDNC Licenses: Includes: ShopDNC

Qty ShopOperations Licenses: Includes: ShopDocuments & ShopOperations

Qty ShopMonitoring Licenses: Includes: ShopMonitoring

***** End of ShopFloorManager Related Costs *****

The only difference between generating Pricing for a Competitor vs ShopFloorManager is including the costs for:

- Hardware Maintenance Support (Analyzing see above for explanation)**
This cost may be included in the Competitor's Maintenance!
- Filezilla Support (FTP Installation & Maintenance)**
This cost may be included in the Competitor's Maintenance Cost!
- Qty ShopOperations Licenses**
Secure Containers for better management organization & use of Travelers resulting in savings!
- Qty ShopMonitoring Licenses**
Machine Monitoring allows you to spot production bottlenecks quickly and allows capturing & store of valuable shopfloor data for analyzing production efficiency in detail!

Note: Categories 3 & 4 above will affect the pricing and increase the Savings in Section 5 of the ShopFloorManager Pricing! Click on the links and or call (1-781-933-9500) so we can help determine what you may need in terms of licenses if any!

Note: The Pricing App is activated for Pricing ShopFloorManager by inputting a **Quote Code**. Call (1-781-933-9500) for your Quote Code!

Pricing Application (Sections 3 Using ShopFloorManager's Software)

***** **Start of Using DNC Personnel for On-Site Installation Costs** *****

Use On-Site Personnel? Yes(1) No(0). Select (1) if you are using On-Site Personnel(DNC vendor) for Installation!

Set OnSite Personnel#: The number of On-Site Personnel(DNC vendor) setting CNC Parameters, Testing up/downloading, etc.

Set RS232 CNCs/Day: RS232 CNCs On-Site Personnel(DNC vendor) can set CNC Parameters & Test up/downloading.

Set Ethernet CNCs/Day: Ethernet CNCs On-Site Personnel(DNC vendor) can set CNC Parameters & Test up/downloading.

Set Wireless CNCs/Day: Wireless CNCs On-Site Personnel(DNC vendor) can install, set CNC Parameters and Test up/downloading.

Set Days/Week: Set the Number of Days in a Week for On-Site Personnel(DNC vendor).

Install Moxas On-Site? Yes(1) No(0). Select (1) for using On-Site personnel(DNC vendor) to install Moxas using Moxa Installation Kits!

Set Moxa Parameters: Yes(1) No(0). Select (1) for using On-Site Personnel(DNC vendor) to setup Moxas Parameters to attach to Access Point.

On-Site Install Days: Enter Cost \$ per day for each Service Personnel; "Note: The Average # of Machines Complete/Per Day."

On-Site Hotel Days: Enter Cost \$ of one Night Hotel Stay

On-Site Meal Days: Enter Cost \$ of One Day of Meals

On-Site Car Days: Enter Cost \$ of One Day of Car Rental

Airfare Expenses: Enter Cost \$ of Airfare Expenses

Miscellaneous Costs: Enter Cost \$ of Miscellaneous Expenses

Adjustment Costs: Enter Cost \$ for Expense Adjustments! I.E. Varying On-Site Personnel Costs, etc.

***** **End of Using DNC Personnel for On-Site Installation Costs** *****

This visual is for completeness only and will be the same as in previous identical section in "Using Competitor's Software!"

Pricing Application (Sections 4 Using ShopFloorManager's Software)

Start of Using In-House Personnel for In-Plant Installation Costs

Hourly In Plant Rate \$	50	Enter the Hourly Rate charged for labor in your Shop!
Access Point (0-10):	4	Enter Cost \$ 503 for one Access Point(used for Moxa Units): Access Points ; Shop View ;Access Point Devices Supported:
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one Access Point
DeviceMaster 1 (0-250):	0	Enter Cost \$ 173 for one DeviceMaster RTS 1: Comtrol Hubs ; Shop View
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one DeviceMaster RTS 1
DeviceMaster 4 (0-63):	0	Enter Cost \$ 435 for one DeviceMaster 4: Comtrol Hubs ; Shop View
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one DeviceMaster 4!
DeviceMaster 8 (0-32):	2	Enter Cost \$ 707 for one DeviceMaster 8: Comtrol Hubs ; Shop View
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one DeviceMaster 8!
DeviceMaster 16 (0-16):	0	Enter Cost \$ 996 for one DeviceMaster 16: Comtrol Hubs ; Shop View
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one DeviceMaster 16!
DeviceMaster 32 (0-8):	0	Enter Cost \$ 1482 for one DeviceMaster 32: Comtrol Hubs ; Shop View
Installation Hours:	2.5	Enter Cost \$ 250 of the Materials for Installing one DeviceMaster 32!
RS232 Cables (0-250)	13	Enter Cost \$ 80 Cat5E Slimline Boot PVC Shielded Solid Gray Jacket 150 FT: Click GrayBar
Installation Hours:	1	Enter Cost \$ 50 of the Materials for Installing one RS232 Cable!
Set CNC Parameters:	0.5	Enter the hours to set the Parameters & Test up/downloading for one RS232 CNC!
Moxa Wireless (0-250):	100	Enter Cost \$ 299 for one Moxa Wireless to RS232 or Ethernet Unit: Moxa
Installation Hours:	0.75	Enter Cost \$ 80 for one Moxa Installation Kit that is used to install the Wireless Moxa Units
Set CNC Parameters:	0.5	Enter the hours to set the Parameters & Test up/downloading for one Wireless CNC!
Set Moxa Parameters:	0.25	Enter the hours to set & test the Moxas Parameters for the Network & Access Point!
Ethernet Cable (0-250):	12	Enter Cost \$ 80 for one Ethernet Cable to Machine Tool
Installation Hours:	1	Enter Cost \$ 50 of the Materials for Installing one Ethernet Cable!
Set CNC Parameters:	0.5	Enter the hours to set the Parameters & Test up/downloading for one Ethernet CNC!
Other Internal Costs (0-1):	1	Enter Cost \$ 500 of any Internal Costs such IT(Network: Switches, etc.), Maintenance, etc. to Complete Project

End of Using In-House Personnel for In-Plant Installation Costs

For scenarios where the Quote is for upgrading from an existing System either ShopFloorManager's or a Competitors you should use the following approach. First create the Systems as if it were being created from scratch. Make a copy for your records.

Now for everything above the label **"RS232 Cables (0-250)"** you can modify the Quantities and select different configurations such as replacing one DeviceMaster 8 (set Qty to 0) with twice as many or less with DeviceMaster 4; Modify hardware quantities if they already exist in your Plant. I.E. Change an Access Point up or down or set to 0, installation hours, costs, etc!

With to regard to the Items **"RS232 Cables (0-250)"** and below if they already exist in your plant, you should set the costs & Installation costs to zero! What this does is remove the costs for the "device" but still keeps the Quantity which may be required for calculating costs for setting parameters &, training by third-party personnel!

If you originally had 11 **"RS232 Cables (0-250)"** and this has increased to 13, you should add the costs for the Cable & Materials and multiply by two and add this to the **"Other Internal Costs(0-1)"** making the appropriate notes on the paper copy above! Set the Cable & Material Costs to Zero. If you need to change the Quantity because the onsite personnel don't have to set parameters for all go ahead and keep a note on the paper copy! Use this strategy for the other groups below! That's all there is, they're ain't no more! **Note:** Another version to be released shortly which eliminates the need for modifications of **"RS232 Cables (0-250)"** as described in this paragraph!

Pricing Application (Sections 5 & Using ShopFloorManager's Software)

Start of Payback Analysis

Target Rate of Return <input type="text" value="10"/> % User Modifiable	Savings per Year \$ <input type="text" value="42000"/> Read only! Quote Option 5
Hardware Failure Rate/Year <input type="text" value="5"/> % User Modifiable	Enter Dollars Saved(Whole Numbers) per Year in the Categories Below
Yearly Cost of Maintenance <input type="text" value="\$4134.00"/> Read only!	Quality <input type="text" value="12000"/> Mfg. Eng. <input type="text" value="11000"/> Shop Floor <input type="text" value="10000"/> Other <input type="text" value="9000"/>

Year	Cash Out	PV Cash Flows	Net PV
2021	\$-126239.00	\$-84239.00	\$-84239.00
2022	\$-5901.00	\$32817.00	\$-51421.00
2023	\$-5901.00	\$29834.00	\$-21586.00
2024	\$-5901.00	\$27122.00	\$5536.00
2025	\$-5901.00	\$24656.00	\$30192.00
2026	\$-5901.00	\$22415.00	\$52607.00
2027	\$-5901.00	\$20377.00	\$72984.00
2028	\$-5901.00	\$18524.00	\$91508.00
2029	\$-5901.00	\$16840.00	\$108348.00
2030	\$-5901.00	\$15309.00	\$123657.00
2031	\$-5901.00	\$13917.00	\$137574.00
2032	\$-5901.00	\$12652.00	\$150226.00
2033	\$-5901.00	\$11502.00	\$161728.00
2034	\$-5901.00	\$10456.00	\$172184.00
2035	\$-5901.00	\$9506.00	\$181690.00

Yearly Savings Using ShopFloorManager

Category	Percentage
Quality	28.6%
Engineering	28.2%
Manufacturing	23.8%
Other	21.4%

Payback Chart: Option 5

Net Present Value & Payback Analysis
in dollars (USD)

End of Payback Analysis

This Section's only inputs are the Savings Categories, the "Target Rate of Return" & "Hardware Failure Rate/Year". These affect the Payback Analysis. As you enter the inputs for this section the Analysis & Graphs are update in Real-Time! This section lets you know if this \$\$ investment produces the returns necessary to justify the Factory Automation Expenditure. There may be other criteria than \$\$!

Quick Notes

Quick Notes(Sections 1 & 2 Hovering over Cells)

Create Starter System
Modify=> Wireless RS232/Ethernet CNCs: RS232 Cable CNCs: Ethernet Cable CNCs:

Quote Options:	Option 5	Option 1	Option 2	Option 3	Option 4	Option 5	Quote Code	Call CCI for Code!
ShopFloorManager Costs:	\$18669.00	\$18669.00	\$18669.00	\$18669.00	\$18669.00	\$18669.00	Average Cost ShopFloorManager License:	\$149.00
Remote Installation Costs:	\$2500.00	\$2500.00	\$2500.00	\$2500.00	\$2500.00	\$2500.00	Eliminate All On-Site Costs using Remote Installation!	
Maintenance Costs:	\$3191.00	\$3191.00	\$3191.00	\$3191.00	\$3191.00	\$3191.00	SFM Maintenance is \$Free for the First Year!	
OnSite CNC Parameter Costs:	\$33750.00	\$0.00	\$17550.00	\$21600.00	\$29700.00	\$33750.00	On-Site Set CNC Parameter & Up/Downloading Costs.	
OnSite Moxa Parameter Costs:	\$4218.00	\$0.00	\$0.00	\$4218.00	\$0.00	\$4218.00	On-Site Moxa Parameter Setting Costs.	
On-Site Install Costs:	\$8475.00	\$0.00	\$4635.00	\$5820.00	\$7740.00	\$8475.00	On-Site Costs: Hotel, Car, Meals, AirFlight, etc.	
In-Plant Hardware Costs:	\$35326.00	\$35326.00	\$35326.00	\$35326.00	\$35326.00	\$35326.00	In-Plant Purchased Hardware Costs!	
In-Plant Material Costs:	\$10750.00	\$10750.00	\$10750.00	\$10750.00	\$10750.00	\$10750.00	In-Plant Material Costs for Installation!	
InPlant CNC Parameter Costs:	\$0.00	\$3125.00	\$0.00	\$0.00	\$0.00	\$0.00	In-Plant Set CNC Parameters & Up/Downloading Costs.	
InPlant Moxa Parameter Costs:	\$0.00	\$1250.00	\$1250.00	\$0.00	\$1250.00	\$0.00	In-Plant Set/Test Moxa Parameters Costs.	
In-Plant Install Costs:	\$2000.00	\$5750.00	\$5750.00	\$5750.00	\$2000.00	\$2000.00	In-Plant Installation Costs!	
In-Plant Other Costs:	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	In-Plant Internal Work Costs: IT, Maintenance, etc.!	
Total Client Cost:	\$116188.00	\$77870.00	\$96930.00	\$105133.00	\$108435.00	\$116188.00	Cost Savings using Remote Installation: \$38318.00	

Note: To view the different Quoting Options in the Row Star

Quote Option 2: In-House Costs plus using On-Site DNC Personnel for testing & setting All CNC Parameters!

Total Machines: **The Base System starts with 10 Machines & Requires Remote Installation!**

Hardware Support(0/No;1/Yes): **Your Cost \$ 300** For Annual Maintenance for Analyzing Hardware Problems (Doesn't include Replacement)

Filezilla Support(0/No;1/Yes): **Your Cost \$ 100** For Annual Maintenance for FTP Server Support.

Qty of ShopDNC Licenses: **Includes: ShopDNC**

Qty ShopOperations Licenses: **Includes: ShopDocuments & ShopOperations**

Qty ShopMonitoring Licenses: **Includes: ShopMonitoring**

End of ShopFloorManager Related Costs

Hovering over **most** cells throughout the App will give you valuable information on the use of the Pricing App. See the **red arrow** above! When in doubt just Hover!