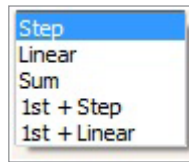# X.1 | Step, Linear, and Sum Methods

When you set up a **Run Table** or **Price Table** with variable quantity breaks, you must select the method that you want Printer's Plan to use in order to calculate the amounts between quantity breaks. In Printer's Plan, this calculation is referred to as "interpolation". Five interpolation methods are available:
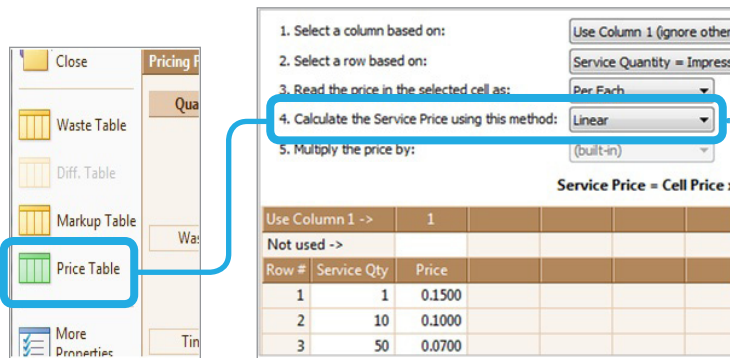

Selecting the Interpolation Method for the Run Table

CLICK THE ARROW TO SELECT THE INTERPOLATION METHOD.

Services | Service Setup Window

Selecting the Interpolation Method for the Price Table

CLICK THE ARROW TO SELECT THE INTERPOLATION METHOD.

Services | Service Setup Window   **Services | Service Setup Window | Price Table**

Step, Linear, and Sum Methods - Examples

Sample Table
The following examples refer to this table:

Quantity Breaks	Unit Cost or Price	Units/Hour
100	10.00	1000
500	5.00	2000
1000	1.00	3000

Step Method	Between quantity breaks, Unit Cost/Price and Speed remain constant.

If Quantity is	Calculated Cost or Price	Calculated Units/Hours
1 – 100	10.00	1000
101 - 500	5.00	2000
501 - 1000	1.00	3000
1000+	1.00	3000

Linear Method	Between quantity breaks, Unit Cost/Price and Speed **change in proportion** to the change in quantity.

If Quantity is	Calculated Cost or Price	Calculated Units/Hours
1 – 100	10.00	1000
300	7.50	1500
500	5.00	2000
800	2.60	2600
1000	1.00	3000
1000+	1.00	3000

Sum Method	Printer's Plan calculates the price for each quantity range separately using the Sum Method, then adds all the prices to arrive at the total price. **NOTE:** *This method is used for Unit Cost and Price, not for Units/Hour.*

Quantity Range	=	Price
First 100 units	100 x $10	$1,000
Next 400 units (500 – 100)	400 x $5	$2,000
Next 500 units (1000 – 500)	500 x $1	$500
Next 200 units (1200 – 1000)	200 x $1	$200
Total Price of 1200 units		**$3,700**

Step, Linear, and Sum Methods

1st + Step Method - Example

Sample Table
The following example refers to this table:

Quantity Breaks	Unit Price ($)
1	25.00
100	2.00
500	1.00

1st + Step	This method is similar to the Step Method. The only difference is that the price of the first unit is always the same.

If Quantity	**=**	**Total Price**
80	$25 + (79 x $2)	$183
100	$25 + (99 x $2)	$223
300	$25 + (299 x $1)	$324

1st + Linear Method - Example

Sample Table
The following example refers to this table:

Quantity Breaks	Unit Price ($)
1	25.00
2	2.00
100	2.00
500	1.00

1st + Linear	This method is similar to the Linear Method. The only difference is that the price of the first unit is always the same. **NOTE:** *You must set up the second row the same as shown in the table. (Break quantity as 2 and its Unit Price the same as the price of the third quantity break.)*

At quantity of 80:

Unit price at 80 = $2.00 (= $2 for quantities 2 through 100)
Total price = $25 + (79 x 2) = $183

At quantity of 300:

Unit price at 300 = $1.50 (interpolated linearly)
Total price = $25 + (299 x $1.50) = $473.50