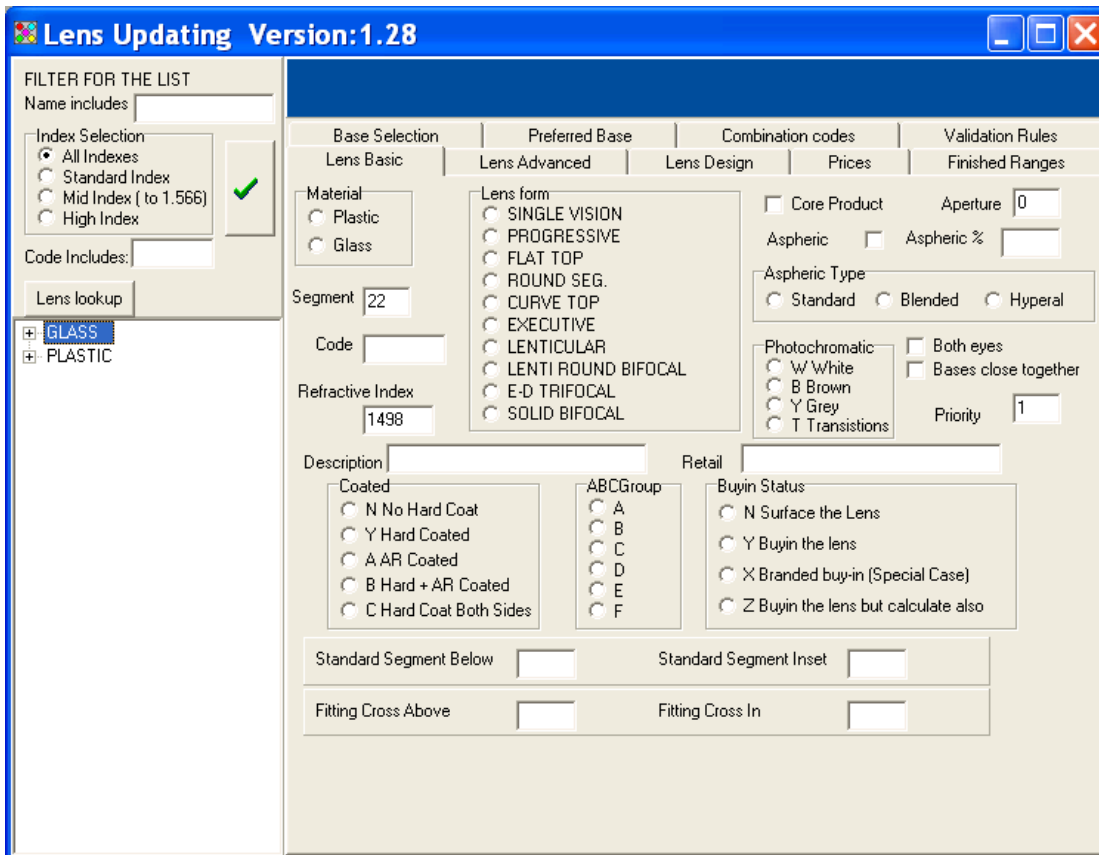


Updlens:

This program brings together the lens updating programs into one program. The following screen is the main part of the software.



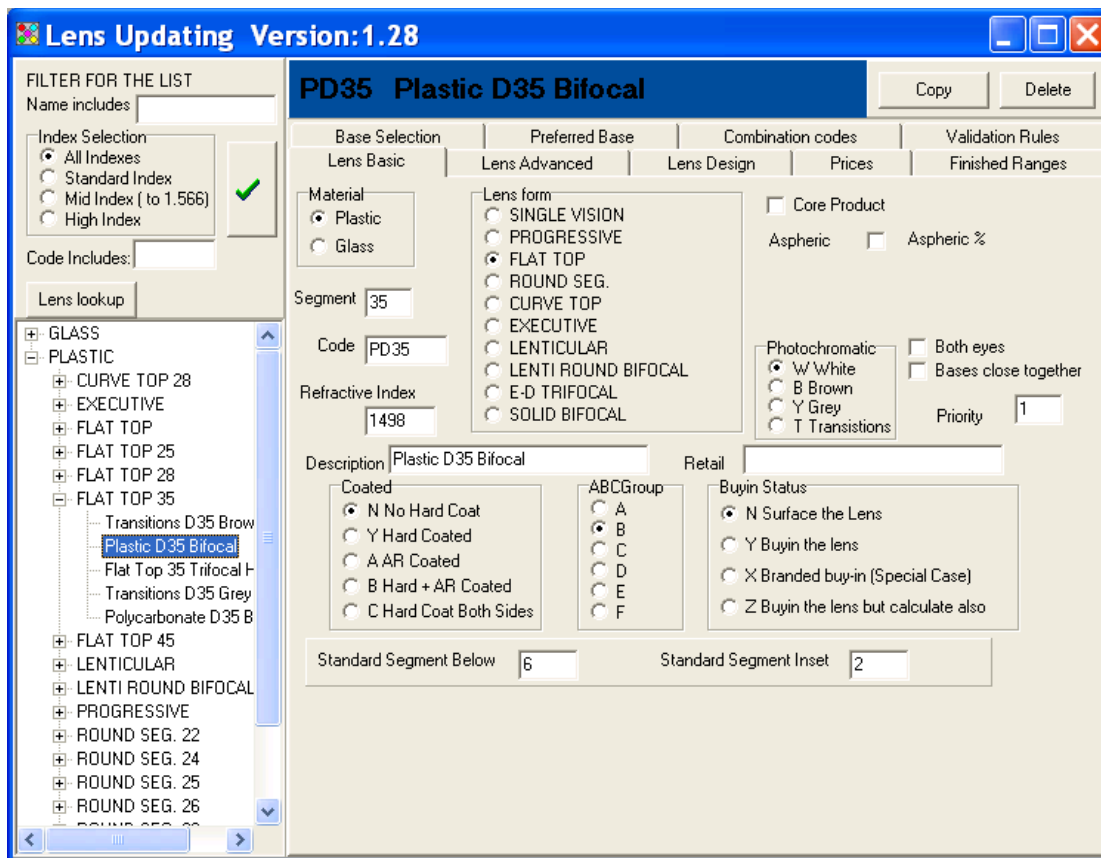
The left hand side is for searching and the right hand side displays the data for the lens.

The tick button is pressed to search for lenses, you can use the filters to look for a particular index or part of name or code or a combination of all. There is also a lens look up function which bring up a list of lenses from which to select as an alternative.

When the tick is pressed for the first time then

- + Glass
- + Plastic

are shown, pressing the + or clicking the word will expand the list as in the following example where Plastic D35 has been selected.



The data is shown as a set of tabs across the top eg Lens Basic. Each of these tabs is explained in turn.

Lens Basic:

Material: Either Glass or Plastic

Lens Type: One of the defined lens forms.

Segment: Entered if a bifocal. The width of the segment.

Code: The four character code that defines the lens on the input screen.

Ref. Index Enter the Refractive Index of the lens $1498 = 1.498$.

Core Product This is ticked if the product is in the core range. This is used in the Titan reporting.

Aperture Enter the Aperture of a lenticular here. This is only shown if the lens is Lenticular.

Aspheric Check if this is an aspheric lens.

Aspheric % Enter the percentage of asphericity. If not sure then 94 is a good guess.

Aspheric Type The design of the Aspheric lens.

Both Eyes This is set to indicate that the semi-finished can be used on both eyes. This is only relevant for stock system.

Bases close together

This is ticked when the semi-finished has bases that go up in steps of less than 1.5 diopters. This is for the base selection algorithms and the stock system.

Priority. Higher priority lenses are shown to the top of the list.

Photochromatic Indicate lens colour

Description: Enter the name of the lens this is printed on the lens picking instructions.

Retail Retail description, this is printed on the delivery note.

Coated Indicates what coating is on the lens.

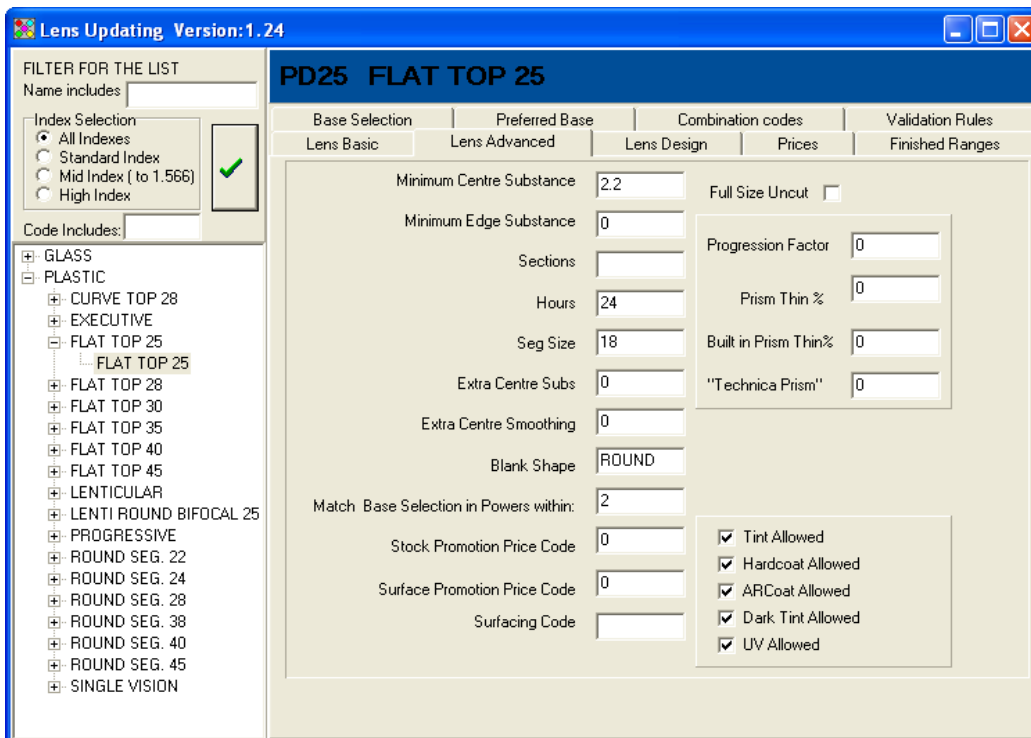
ABCGroup Indicates which category for the statistical analysis.

Buyin Status N indicates the lens is to be made from the lab,
 Y indicates the lens is to be bought in
 X is a special case and should only be used when advised to
 Z indicates calculate design but still buy-in. This is used when want to advise third party of subs.

Segment Below. Enter the position of the reading segment below datum.

Segment Inset Enter the position of the reading segment.

Lens advanced :



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 www.drscomputing.co.uk



Min. Cent. Subs

Enter the minimum centre substance of the lens. If 0 then the minimum subs calculated (using global safety margins) will be used.

Min. Edge Subs

Minimum edge substance

Full Size Uncut

If set to Y then this the lens design will be such so that the lens will not be wasted.

Rotate Seg. Y/N Enter Y if you wish to achieve inset by rotation on Round Segments.

Sections The section codes that any job using this lens must be tracked into.

Hours The time in hours that will be taken to surface the lens.

Seg. Size:

The depth of the segment. Used when drawing the job on screen. If not input then one is estimated.

Extra Centre Subs.

This is "fudge" factor which will add the number entered here onto the calculated lens design centre subs. (finished subs)

Extra Centre Smoothing.

This is a "fudge" factor which will add the number entered here onto the calculated lens design smoothing allowance. (generator subs)

Blank Shape

Set to ROUND for for Round blanks (Default)
Can be EXEC to define rectangular blanks.

Match Base selection on Powers within:

If this is set to non-zero then the same base will be used when the right and left lens powers are less than the number entered here. If it is zero, then a system wide default will be used.

Suite 7 Monkes Dene, Penhurst, New Street, Chipping Norton, Oxfordshire, OX7 5LN
Tel: +44 (0)1608 643 040, **Fax:** +44 (0)1608 643 060, **Email:** office@drscomputing.co.uk
www.drscomputing.co.uk

Stock Promotion Code:

This is for pricing. If a stock (finished) lens is used and a non-zero value is entered in this field then the prices in the grid indicated by this pricing code are compared with the price used and if lower then the promotion price will be used.

Surfaced Promotion Code:

This is for pricing. If a surfaced lens is used and a non-zero value is entered in this field then the prices in the grid indicated by this pricing code are compared with the price used and if lower then the promotion price will be used.

Surfacing Code.

If this field is not blank then the lens design will be made using the code entered here, typically used for AR-Coated product which is made from an uncoated lens.

Progression factor

The factor used in the progressive calculations. The progression factor determines how steeply the addition curve comes in. A progressive with a long corridor and a lower fitting cross will have a lower factor and a lens with a short corridor and a higher fitting cross will have a higher factor.

Prism Thin %

The percentage of the add used for prism thinning.

Built in Prism Thin %

The percentage of the add that the lens designer has built into the lens for prism thinning. Pro 15 has 40% prism thin, so if 40 is put in here and 65 is put in the *Prism Thin %* then the software will only work (65-40) 25% prism thinning.

Technica Prism.

This was recommended for Technica lenses. The value entered is a percentage and the lens design will work an additional horizontal prism across the



Tint Allowed

Ticked if Tint is allowed

Hardcoat Allowed

Ticked if Hard Coat is allowed on this lens.

AR Coat Allowed

Ticked if AR Coat is allowed on this lens.

Dark Tint Allowed

Ticked if Dark Tint is allowed on this lens.

UV Allowed

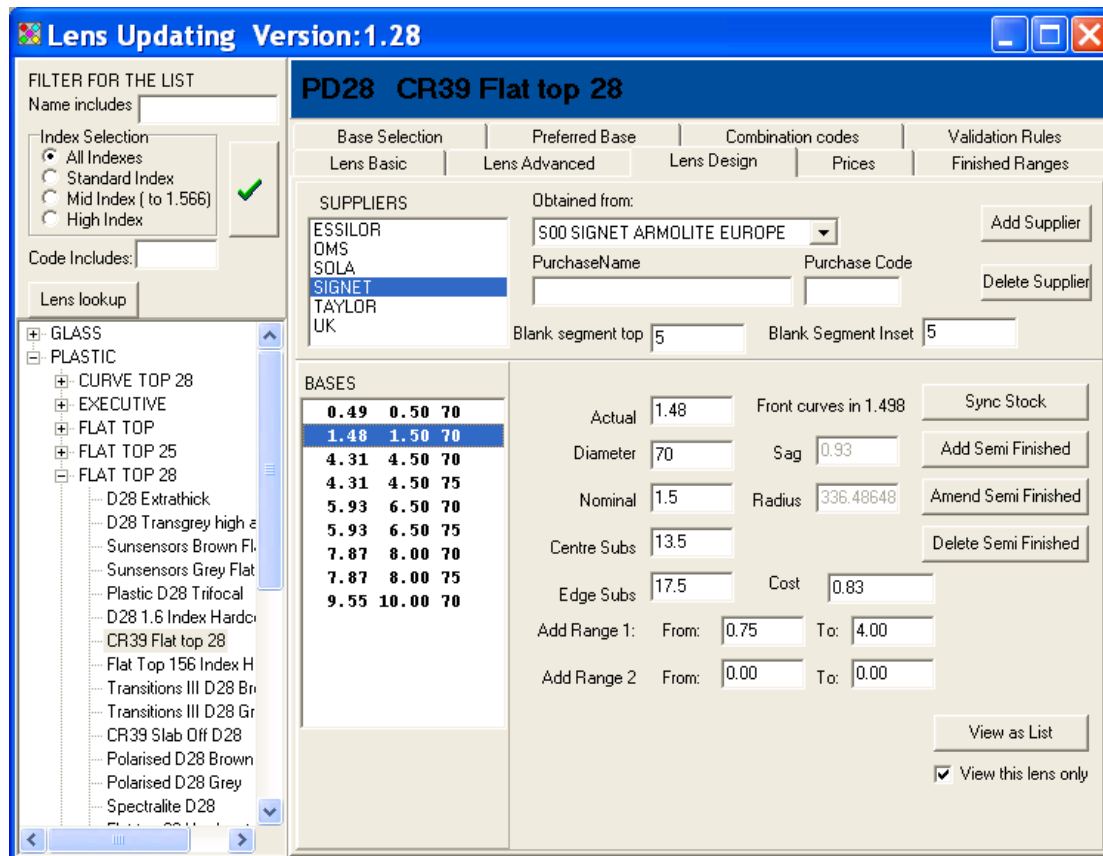
Ticked if UV is allowed on this lens.

Stocking Code

Indicates what stock data is to be shown in Lensstok program.

Lens Design:

The following screen is shown.



Lens Updating Version: 1.28

PD28 CR39 Flat top 28

Base Selection | Preferred Base | Combination codes | Validation Rules
 Lens Basic | Lens Advanced | Lens Design | Prices | Finished Ranges

SUPPLIERS

Obtained from: S00 SIGNET ARMOLITE EUROPE [Add Supplier]

PurchaseName: [] Purchase Code: [] [Delete Supplier]

Blank segment top: 5 | Blank Segment Inset: 5

BASES

0.49	0.50	70
1.48	1.50	70
4.31	4.50	70
4.31	4.50	75
5.93	6.50	70
5.93	6.50	75
7.87	8.00	70
7.87	8.00	75
9.55	10.00	70

Actual: 1.48 | Front curves in 1.498 | Sync Stock

Diameter: 70 | Sag: 0.93 | Add Semi Finished

Nominal: 1.5 | Radius: 336.48648 | Amend Semi Finished

Centre Subs: 13.5 | Delete Semi Finished

Edge Subs: 17.5 | Cost: 0.83

Add Range 1: From: 0.75 To: 4.00

Add Range 2: From: 0.00 To: 0.00

[View as List] View this lens only

The **Suppliers** list shows a list. Additional suppliers can be added via the **Add Supplier** button on the right hand side and removed via the **Delete Supplier** button on the left hand side. A lens always has to have a Supplier. The Supplier acts as the 5th Character of the Lens code.

The obtained from indicates where lenses are ordered from via the stock modules. The Purchase name is added for future development for EDI ordering and similarly for the Purchase code.

Blank Segment Top:

This indicates the position of the segment below the Geometric centre.

Blank Segment Inset:

This indicates the position of the segment inset from the Geometric centre.

A list of the semi-finished blanks for the lens is shown. You can amend a blank by highlighting it, making the changes and then press **Amend Semi-Finished** button.

You can add details for a new semi-finished by filling in the screen and then pressing the **Add Semi Finished** button. You can delete a semi-finished by highlighting it and then pressing **Delete Semi-finished** button. The **Sync Stock** button synchronises the data on this screen with the stock system.

Actual:

This contains the front curve in dioptres in 1.498 for Plastic lenses and 1.523 for Glass lenses. The equivalent Sag (over50mm) and radius are shown.

Diameter:

This is the PHYSICAL diameter of the lens

Nominal:

This is the front curve as described by the supplier

Centre Subs:

This is the centre thickness of the blank.

Edge Subs:

This is the edge thickness of the blank.

Cost:

This is the cost and will be transferred to the stock system as part of the Sync stock process.

Add Range 1 / Add Range 2:

This defines the Add range, for Single Vision it is set to "0 to 0". Where a range is 1 to 3 , 3.5 and 4 then "1 to 3" is entered in Add range1 and "3.5 to 4" is entered in Add Range 2.

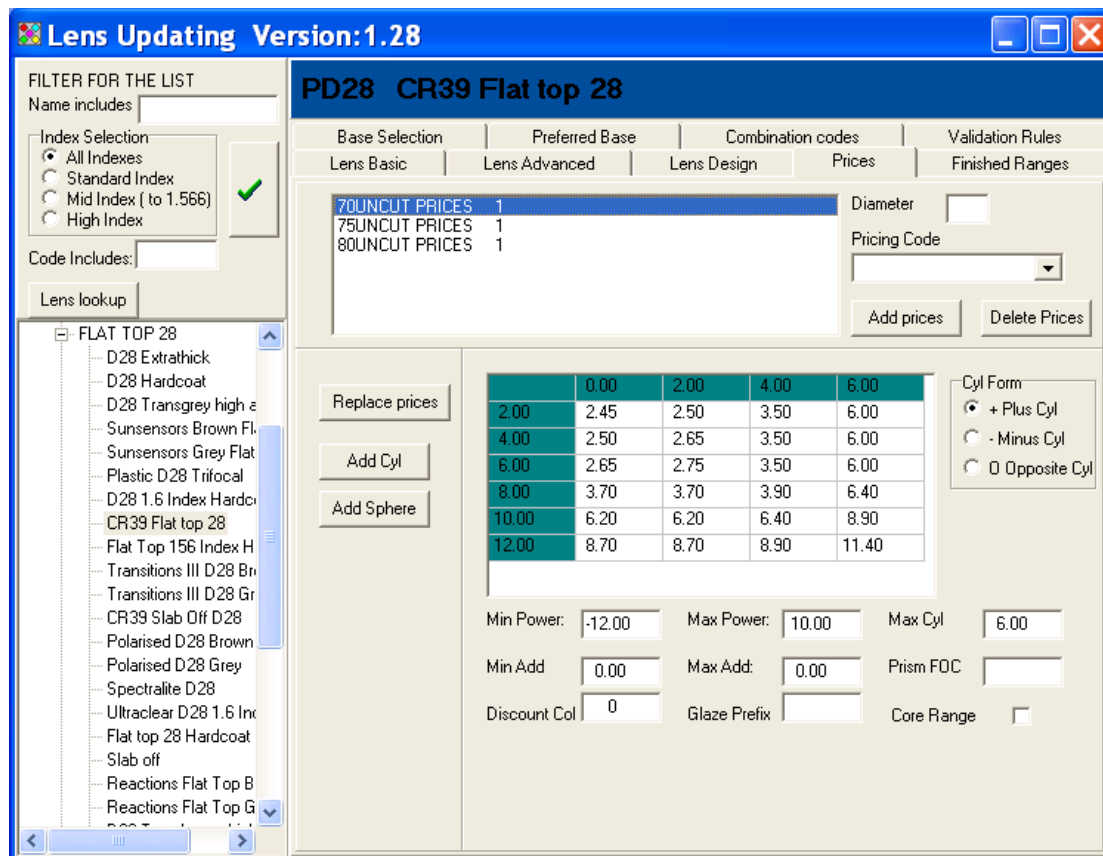


View as List:

This button brings up a screen listing all the semi-finished. It will show all lenses or the selected lens according to the **View this lens only** setting.

Prices:

This shows the pricing information on the following screen.



70UNCUT PRICES 1
75UNCUT PRICES 1
80UNCUT PRICES 1

	0.00	2.00	4.00	6.00
2.00	2.45	2.50	3.50	6.00
4.00	2.50	2.65	3.50	6.00
6.00	2.65	2.75	3.50	6.00
8.00	3.70	3.70	3.90	6.40
10.00	6.20	6.20	6.40	8.90
12.00	8.70	8.70	8.90	11.40

Min Power: -12.00 Max Power: 10.00 Max Cyl: 6.00
 Min Add: 0.00 Max Add: 0.00 Prism FOC:
 Discount Col: 0 Glaze Prefix: Core Range:

A list of diameters and price records are shown at the top. Highlighting one, will show the details at the bottom. You can add a new entry by filling in the **Diameter** and **Pricing code** at the top and pressing **Add Prices**. You can remove Prices by pressing the **Delete Prices** button. There are the following pricing codes defined by the system

1. Standard RX Uncut price
2. Standard RX Glazed price
3. No longer used
4. Standard Stock Uncut price
5. Standard Stock Glazed price

6. Buy-in cost price code
7. Finished lens stock cost price code
8. Reserved
9. Reserved

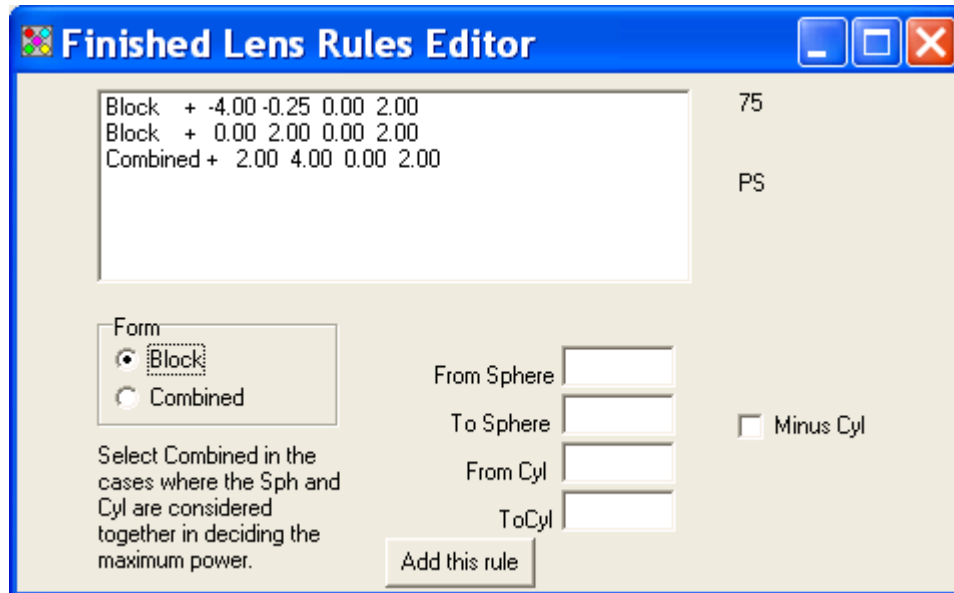
You enter prices in the grid. You can press **Add Cyl** to add an extra column to the grid, up to a maximum of 4 columns. You can press **Add Sphere** to add an extra row to the grid up to a maximum of 6 rows. When you change the prices or the Sph and Cyl entries then you press **Replace Prices** to store the amendments. The cyl form indicates how the lens is transposed for pricing, it can be in Plus or Minus Cyl or Opposite Cyl where the Cyl is put onto the different sign from the Sphere.

The **Min Power** and **Max Power** define the ranges relating to the outside power charges. **Max Cyl** defines the limit beyond which a High Cyl charge is applied. The

Min Add and **Max Add** define the standard Add range. If an add is received outside this range and the range is not "0 to 0" then a "High Add" charge is applied. Prisms free of charge can be specified by entering a value in the **Prism FOC**, if the prism exceeds the value entered here then a Prism charge is applied. If zero is entered then a prism charge is always applied and if 99 is entered then a prism charge is never applied.

Discount Col refers to a discount matrix. A value of -1 indicates a nett item. Glaze Prefix is set to a letter indicating which Glazing charge is to apply. If the frame is Metal then the Glazing Charge MT would normally be applied. If a letter Z is entered here then ZMT would be applied. This is used for lenses which are glazed by third party eg Zeiss.

Core Range indicates a particular discount policy. If set then all prices up to 6/2 are treated as nett.

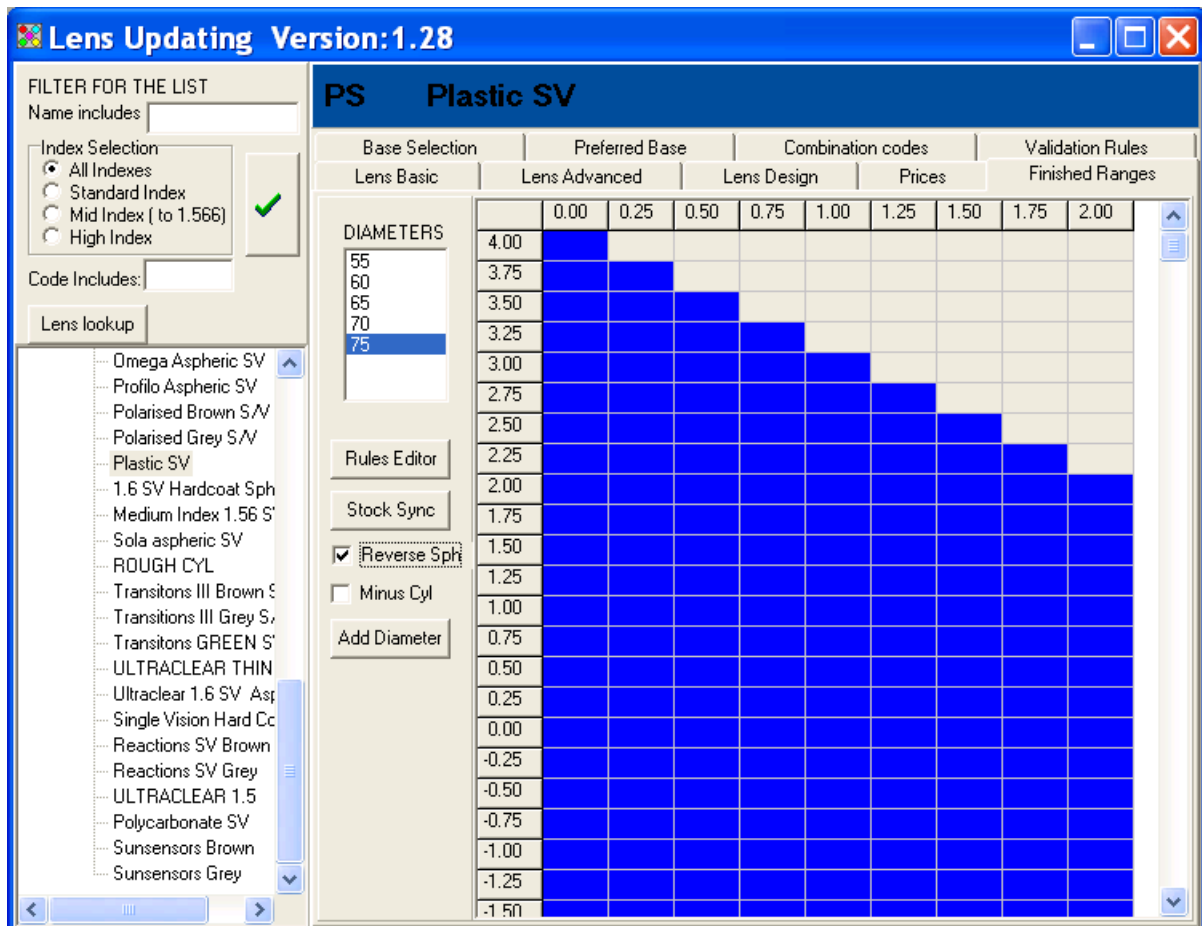


A rule consists of 6 items.

- a) Whether Block or combined. Combined brings up triangles in the visual representation.
- b) From sphere
- c) To sphere
- d) From Cyl (only entered if there is a block range)
- e) ToCyl
- f) Minus cyl format

There are buttons, Add, Amend and Delete the rules. In the example above 3 rules have been set to describe a block range from -4 to $+2$ sphs with cyls out to 2 and a combined range to indicate up to a combined power of $+4$. This produces the

following screen:

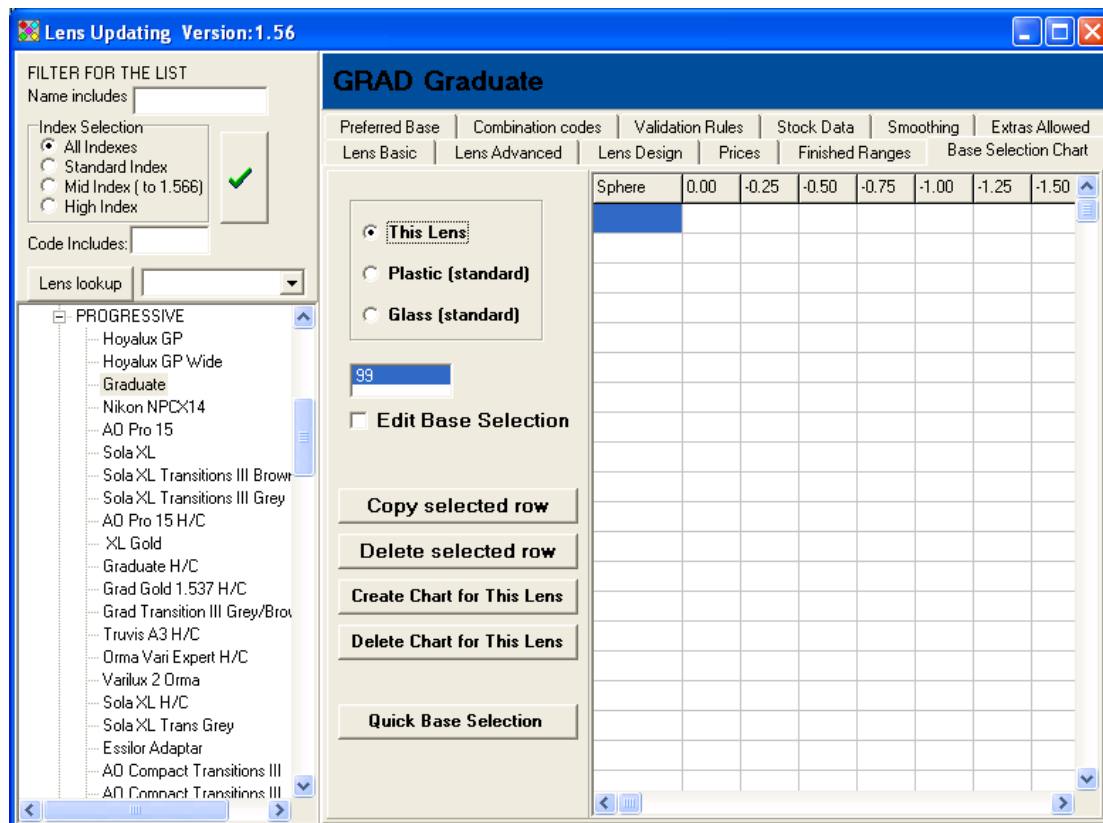


The **Stock Sync** button synchronises the ranges with the stock system. The **Reverse Sph** reverses the direction of the spheres on the screen and the **Minus Cyl** tick shows the grid in Minus cyl format.

Base Selection:

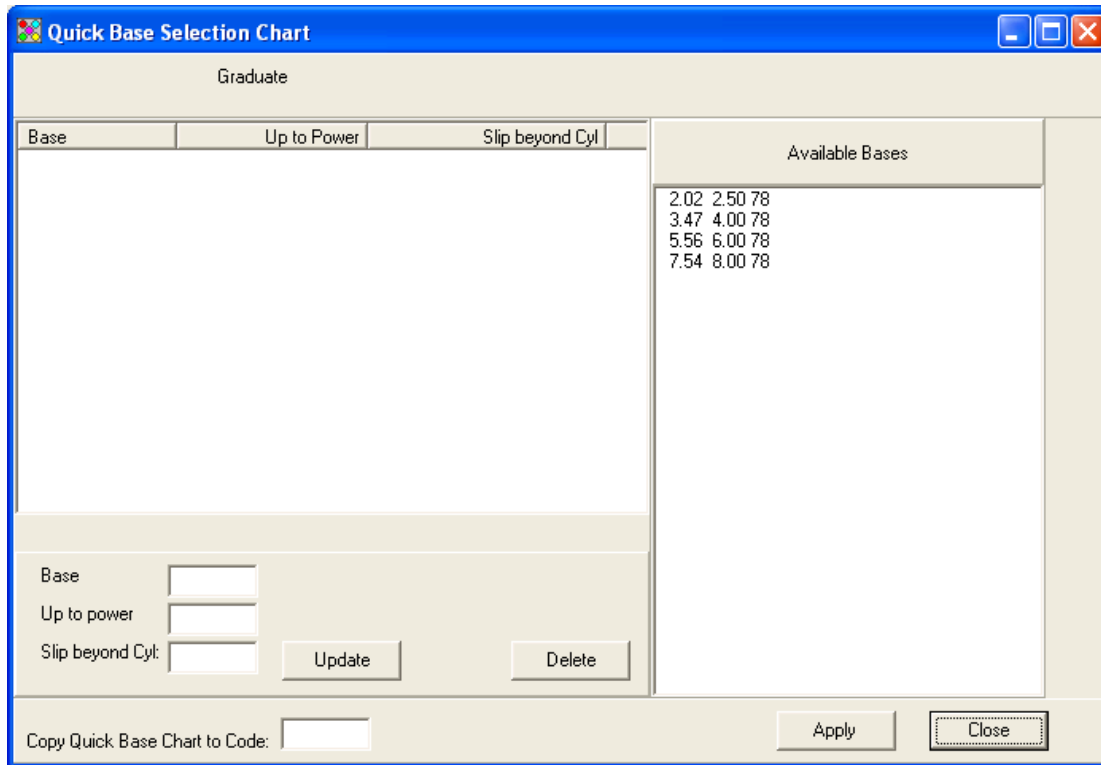
This section determines which base is selected by the lens design module. It is possible to set up the base selection for an individual lens but this is normally done for particular lenses eg Percepta, Omega. Most lenses will have the Standard Plastic or Glass selection applied. If you wish to edit the base selection then you have to tick the edit selection and then you can make the amendments. Spheres less than the lower power will take the base selection of the lower power, cyls > -5.75 take the base selection as the -5.75 cyl, Spheres greater than the upper power will take the base selection of the upper power.

The lens design module will look up the ideal base from this grid and then look for the nearest base that matches the ideal base.



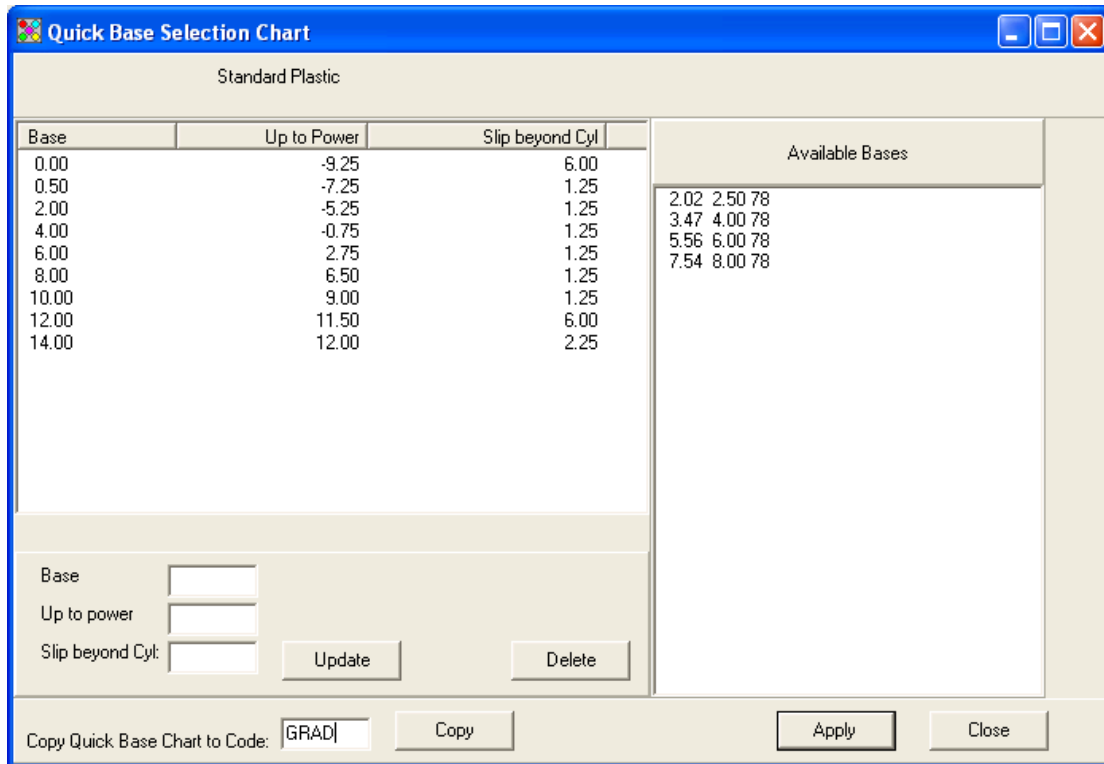
The screenshot shows the 'Lens Updating Version: 1.56' window. On the left, there is a 'FILTER FOR THE LIST' section with a search box and radio buttons for 'All Indexes', 'Standard Index', 'Mid Index (to 1.566)', and 'High Index'. Below this is a 'Code Includes:' field and a 'Lens lookup' dropdown. A tree view on the left lists various lens models under 'PROGRESSIVE', with 'Graduate' selected. The main area is titled 'GRAD Graduate' and contains several tabs: 'Preferred Base', 'Combination codes', 'Validation Rules', 'Stock Data', 'Smoothing', and 'Extras Allowed'. Under 'Preferred Base', there are sub-tabs for 'Lens Basic', 'Lens Advanced', 'Lens Design', 'Prices', 'Finished Ranges', and 'Base Selection Chart'. The 'Base Selection Chart' is active, showing a grid with columns for Sphere powers: 0.00, -0.25, -0.50, -0.75, -1.00, -1.25, and -1.50. The first row is highlighted in blue. Below the grid, there are radio buttons for 'This Lens', 'Plastic (standard)', and 'Glass (standard)'. There is also an 'Edit Base Selection' checkbox and several buttons: 'Copy selected row', 'Delete selected row', 'Create Chart for This Lens', 'Delete Chart for This Lens', and 'Quick Base Selection'.

Setting up base selection on an individual lens basis. Select the 'This Lens'. Click 'Quick Base Selection' :



Base selection may then be created 'from scratch' for this lens. Alternatively, base selection may be based on an existing chart :

- 1) Select 'Plastic Standard'
- 2) Click Quick Base Selection

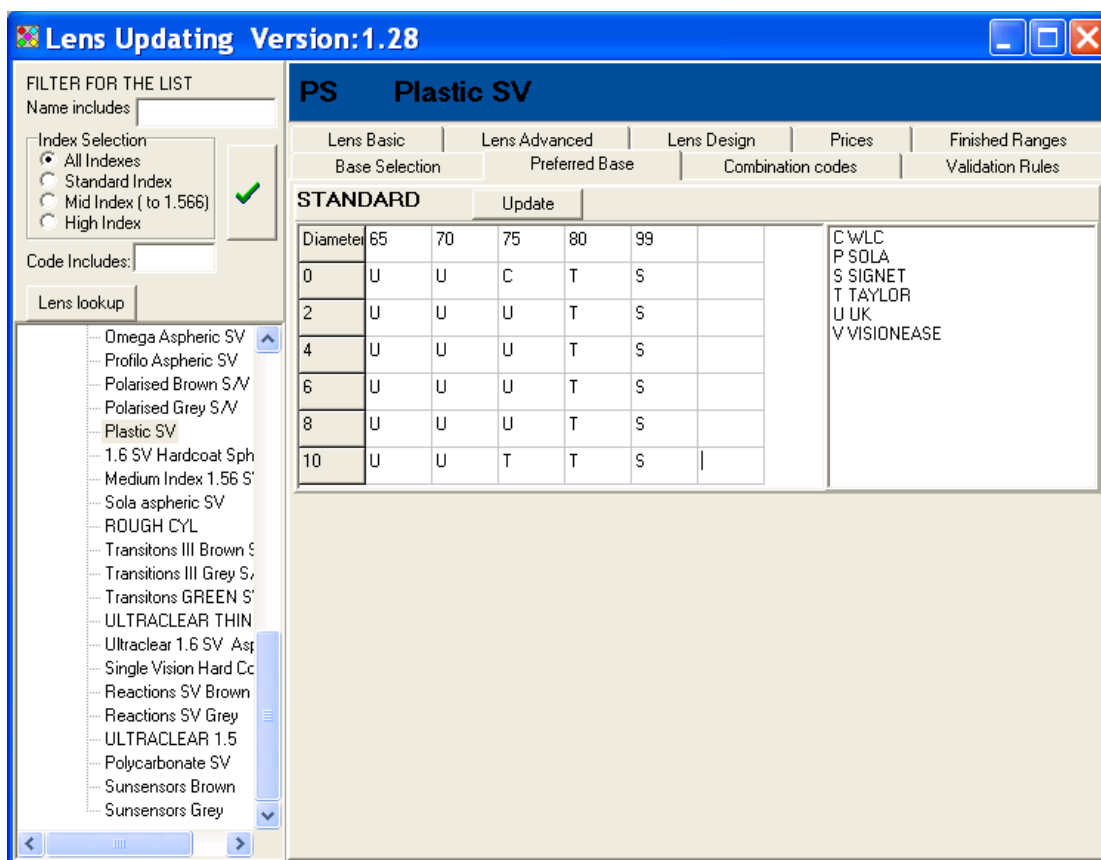


Enter a code in Quick Base Chart to Code and click Copy . The message 'Copied' then appears.

You may then go back and select 'This Lens' and edit base selection for this particular lens.

Preferred Base:

This indicates which supplier is the preferred supplier. This is only relevant for those systems without a live stock so the lens design software uses the settings in here to select the semi-finished to use.



The screenshot shows the 'Lens Updating Version: 1.28' window. On the left, there is a 'FILTER FOR THE LIST' section with 'Index Selection' options: 'All Indexes' (selected), 'Standard Index', 'Mid Index (to 1.566)', and 'High Index'. Below this is a 'Code Includes:' field and a 'Lens lookup' button. A list of lens types is visible, including 'Omega Aspheric SV', 'Profilo Aspheric SV', 'Polarised Brown S/V', 'Polarised Grey S/V', 'Plastic SV', '1.6 SV Hardcoat Sph', 'Medium Index 1.56 S', 'Sola aspheric SV', 'ROUGH CYL', 'Transitions III Brown S', 'Transitions III Grey S', 'Transitions GREEN S', 'ULTRACLEAR THIN', 'Ultraclear 1.6 SV Asp', 'Single Vision Hard Cc', 'Reactions SV Brown', 'Reactions SV Grey', 'ULTRACLEAR 1.5', 'Polycarbonate SV', 'Sunsensors Brown', and 'Sunsensors Grey'.

The main area is titled 'PS Plastic SV' and contains a table with columns for 'Lens Basic', 'Lens Advanced', 'Lens Design', 'Prices', and 'Finished Ranges'. Below this, there is a 'STANDARD' section with an 'Update' button. The table shows lens diameters (65, 70, 75, 80, 99) and their corresponding preferred suppliers (U, T, S). A legend on the right lists suppliers: C WLC, P SOLA, S SIGNET, T TAYLOR, U UK, and V VISIONEASE.

Diameter	65	70	75	80	99
0	U	U	C	T	S
2	U	U	U	T	S
4	U	U	U	T	S
6	U	U	U	T	S
8	U	U	U	T	S
10	U	U	T	T	S

In the example, U (UK) is used for 65mm and 70mm lenses. T (Taylor) is used for 80mm.

Combination Codes:

When a lens and coating are entered in order entry, it can be that the combination refers to another lens. Suppose there is code PS for Plastic SV and MAR for AR coating and there is a code MSV for Multi-AR SV.

So if Extra code is set to MAR and Alternative Lens code is set to MSV then there are the following possibilities.

Always convert

The lens code is processed as MSV

Price as Combined.

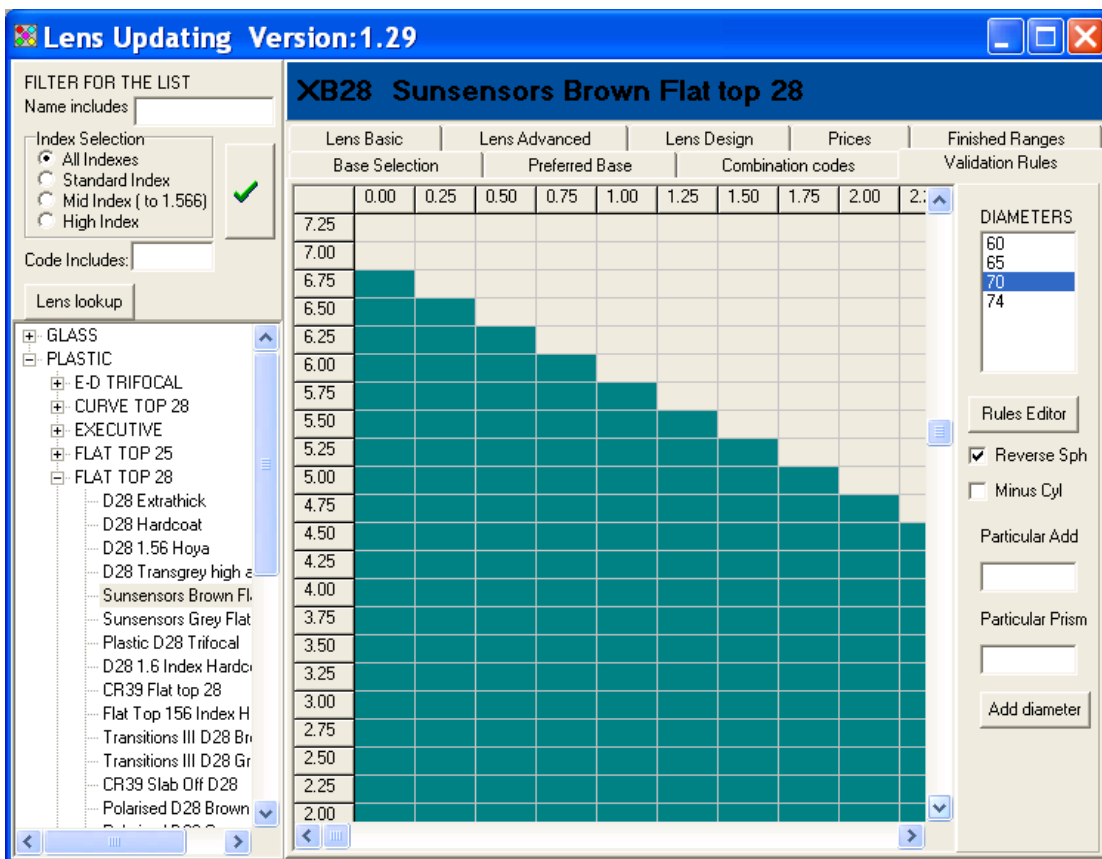
The lens and coat are retained but the job is priced as code MSV

Stock lenses only.

The combination is only done on stock lenses.

Validation Ranges:

This shows the validation ranges that are permitted for the lens. If no ranges are set up then Labman will still pass the order if it can be manufactured from the other data ie these validation rules will sit on top of the other validation rules. It is similar to the finished lens rules but with extra features.



The screenshot shows the 'Lens Updating Version:1.29' application window. The main title bar reads 'XB28 Sensensors Brown Flat top 28'. The interface is divided into several sections:

- Filter for the List:** Includes a search box for 'Name includes', radio buttons for 'Index Selection' (All Indexes, Standard Index, Mid Index (to 1.566), High Index), and a 'Code Includes:' field.
- Tree View:** A hierarchical list of lens types under 'GLASS' and 'PLASTIC', including 'FLAT TOP 28' and various sub-types like 'D28 Extrathick' and 'Sensensors Brown Flat'.
- Table:** A grid showing validation ranges. The columns are 'Lens Basic', 'Lens Advanced', 'Lens Design', 'Prices', and 'Finished Ranges'. The rows represent different lens specifications. The 'Finished Ranges' column shows a range of diameters from 2.00 to 7.25.
- Right Panel:** Contains a 'DIAMETERS' list (60, 65, 70, 74), a 'Rules Editor' button, and checkboxes for 'Reverse Sph' and 'Minus Cyl'.

The **Diameters**, **Rules Editor**, **Reverse Sph**, **Minus cyl**, **Add Diameter** work the same as for the finished lens. The **Particular Add** and **Particular Prism** filter the validation rules to only show on the grid for the specified values entered. The Rules Editor brings up the following screen.

Validation Rules Editor

Block Minus Cyl-10.50 -1.25 0.00 8.00
 Block Minus Cyl -1.00 -1.00 0.00 7.75
 Block Minus Cyl -0.75 -0.75 0.00 7.50
 Block Minus Cyl -0.50 -0.50 0.00 7.25
 Block Minus Cyl -0.25 -0.25 0.00 7.00
 Top Left Minus Cyl 0.00 6.75 0.00 8.00

Diameter

XB28

Max Prism

Form
 Block
 Top Left
 Bottom Right

Cyl Form
 Plus Cyl
 Minus Cyl

From Sphere
 To Sphere
 From Cyl
 To Cyl

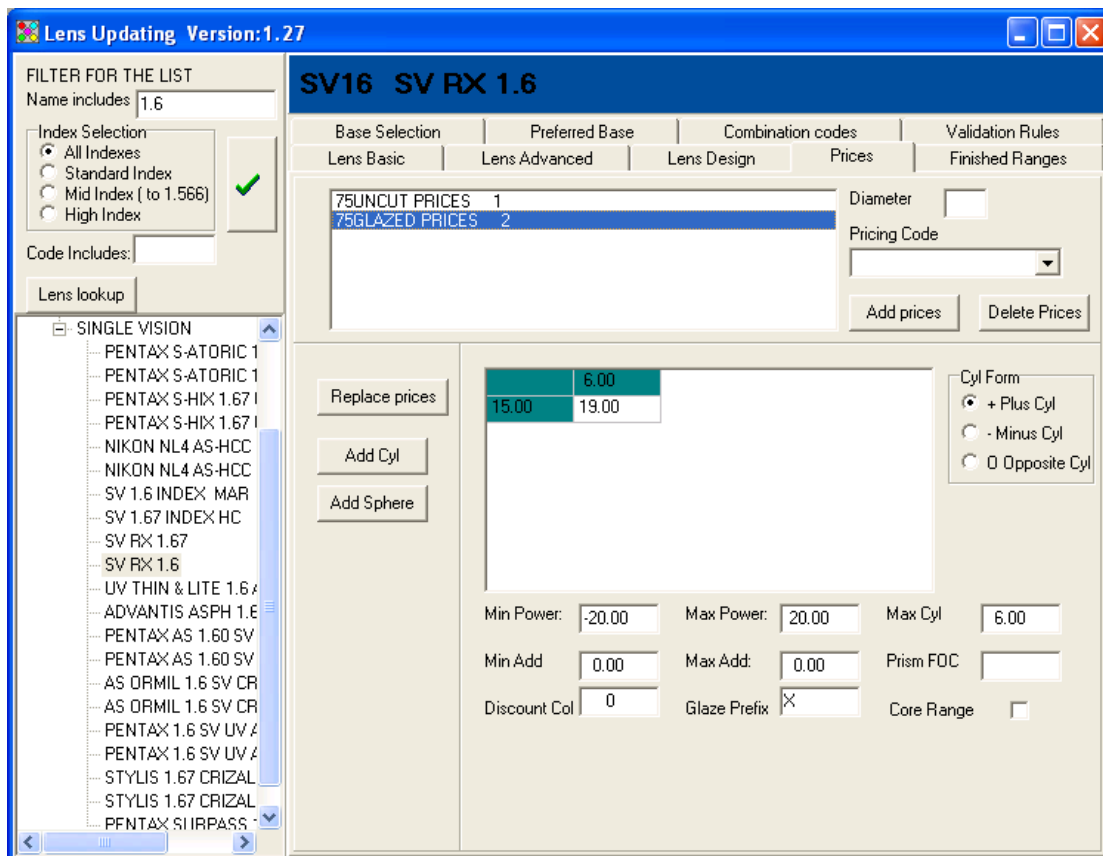
From Add(1)
 To Add (1)
 From Add(2)
 To Add(2)

Top Left to include combined, Bottom right to exclude power greater than combined

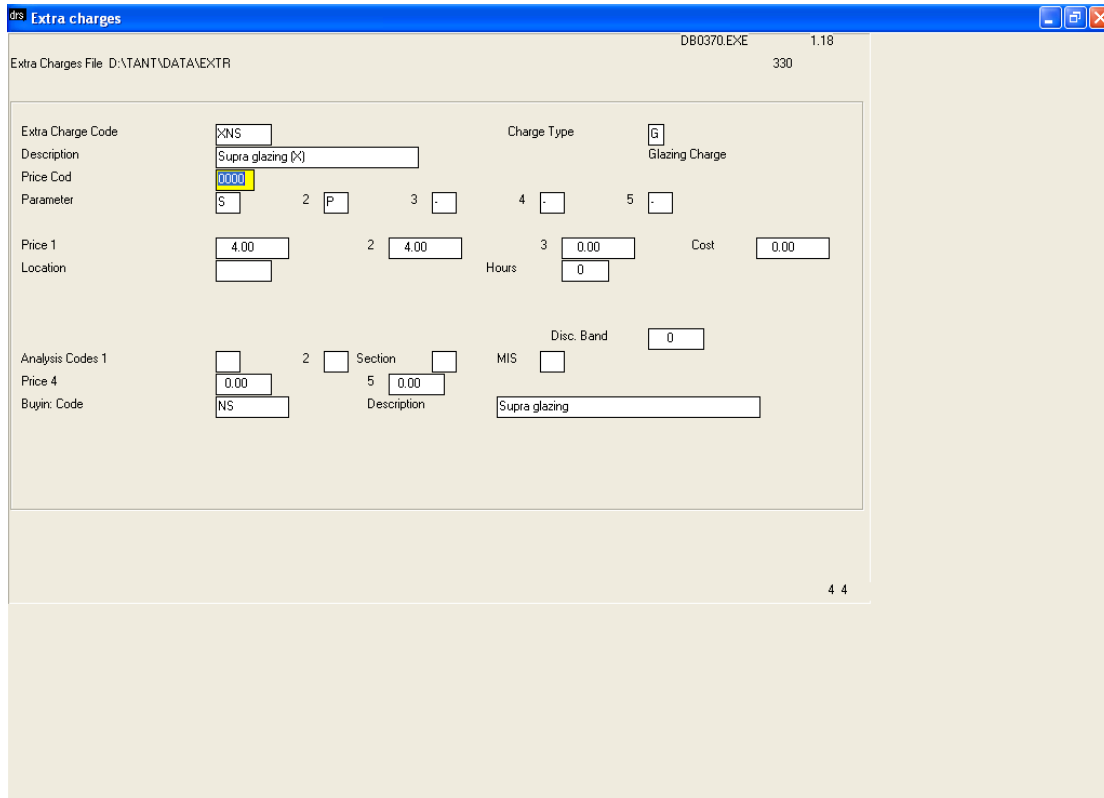
This works the same as the finished rules editor except that the rules allow a prism and the add range to be specified.

Special glazing prices :

1) add a single character eg X to the glaze prefix field in the lens price record



2) Create another entry in the Extra Charges file based on an existing glazing charge prefix (eg NS) and use the glazing prefix as the first character of the code.



The screenshot shows the 'Extra charges' application window with the following data entered:

- Extra Charge Code: >NS
- Description: Supra glazing (K)
- Charge Type: G (Glazing Charge)
- Price Cod: 0000
- Parameter: S 2 P 3 . 4 . 5 .
- Price 1: 4.00 2 4.00 3 0.00 Cost: 0.00
- Location: [Empty]
- Hours: 0
- Analysis Codes 1: [Empty] 2 [Empty] Section [Empty] MIS [Empty] Disc. Band: 0
- Price 4: 0.00 5 0.00
- Buyin: Code: NS Description: Supra glazing

3) order is entered, get following pricing

The screenshot shows the 'Order Entry' window with a 'SHOW PRICES' dialog box open. The 'SHOW PRICES' dialog contains a table with the following data:

DESCRIPTION	GROSS	DISC %	NETT	COST	LEVEL
SV RX 1.6	19.00	0.00	19.00	11.40	0
Supra glazing (X)	4.00	0.00	4.00	0.00	0
SV RX 1.6	19.00	0.00	19.00	11.40	0
Supra glazing (X)	4.00	0.00	4.00	0.00	0
SUPRA FRAME	0.00	0.00	0.00	0.00	0
	46.00	0.00	46.00		

Below the table is a 'CONFIRM PRICES' dialog box with the following options:

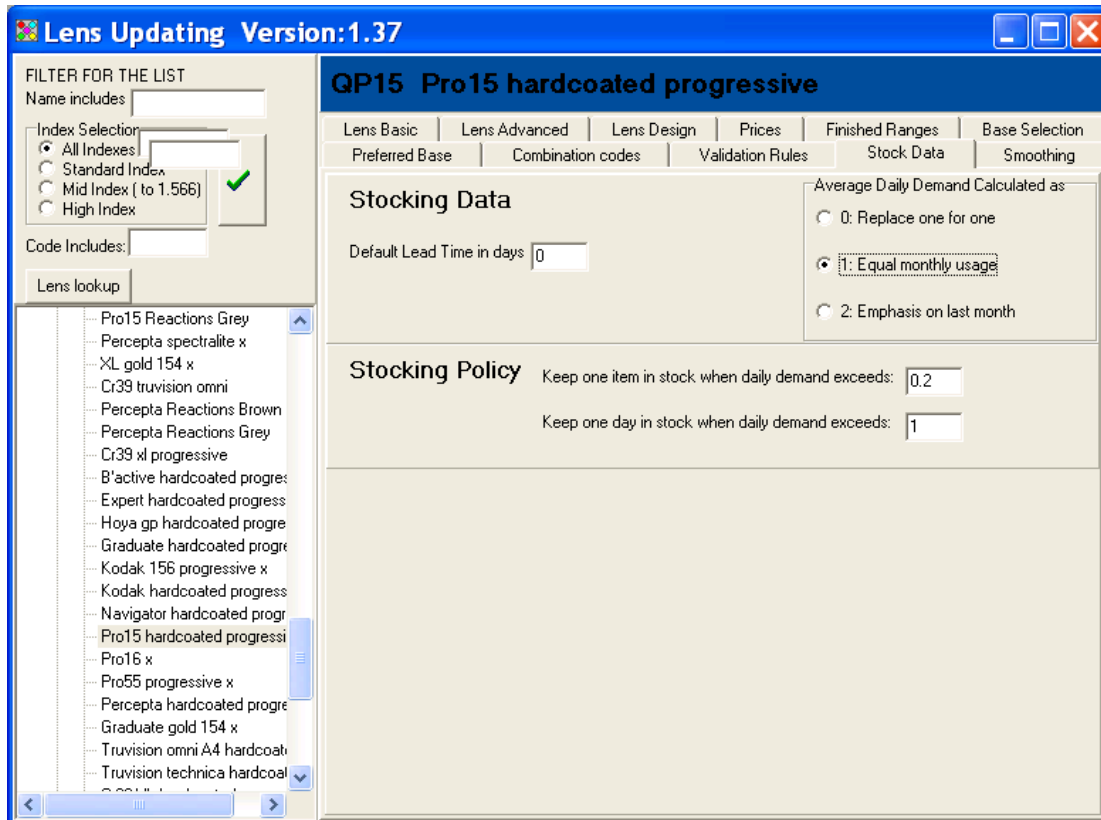
- Y CORRECT
- N DO NOT PROCESS
- A AMEND PRICES
- T INPUT TOTAL

The main 'Order Entry' window shows a grid of input fields for dimensions and a table of material specifications:

R	-2.00	0.00	0	0.00	0					Base	74	484	74	484
L	-2.00	0.00	0	0.00	0					Tool	-650		-650	
R	0.00			0.00						Cent	220		220	
L	0.00			0.00						Edge	306	396	306	396
										Pism	0	0	0	180

At the bottom of the window, there is a text field containing 'About to write frame' and a small 'L' icon.

Stock Data – relates to purchase orders for replacement stock:



The average daily demand is calculated as

Replace one for one: This indicates to treat this lens as now where replacement is ordered.

Daily Demand: Equal monthly usage. Each of the last three months is given equal weighting.

Emphasis on last month: The usage in the last month is weighted to make it more important in calculating the average daily demand.

Stocking Policy.

The values in these fields apply to ALL lenses where daily demand is configured ie not reordered on a replacement basis.

The first field indicates where a minimum stock holding is to be kept and this is indicated where the daily demand exceeds the stated threshold. A demand of 0.2 indicates that there is an average usage of one per week.

The second field indicates where a safety stock of one is to be kept when the daily demand exceeds the stated threshold.

Calculation of Reorder Quantity.

The *stock quantity* is calculated as the *lead time * daily demand*. If the *lead time* is zero then a lead time of one is still used.

A *safety level* is also calculated according to the rules described in the stock policy above.

The *trigger level* is set as *stock quantity + safetylevel – product already ordered*.

If the current stock level is below the *trigger level* then an order for

Example:

Suppose there is a daily demand of 3. The lead time is set at 4 days. The stock quantity is set at 12(4*3). The safety level is set so there is one day stock= 3 items. There is already an order for 2 items.

Suppose there are twenty in stock. The pattern will be:

Day	Level	Onorder	Safety Level	Lead* Daily demand	Trigger Level	Delivered	Order raised for
1	20	2	3	12	13	0	0
2	17	2	3	12	13	0	0
3	14	2	3	12	13	2	0
4	13	0	3	12	15	0	12
5	10	12	3	12	3	0	0
6	7	12	3	12	3	0	0
7	4	12	3	12	3	0	0
8	13	0	3	12	15	12	12
9	10	0	3	12	3	0	0



The pattern established is of running the stock down to the safety level when an order is delivered and a new order is raised.

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