

DIGITAL VISION

RX ENTRY

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RX ENTRY

RX ENTRY AS THE HEART OF THE DVI SYSTEM

- ◆ Every job at the lab is processed by the Rx Entry program – often several times
- ◆ What does the Rx Entry program do?
 - Evaluates the completeness and correctness of the order as entered on the screen
 - Routes the job to the appropriate processing department
 - Creates an optimal lens modeled on the order as entered
 - Evaluates available semi-finished lenses available and makes selections
 - Evaluates finished lens options and compares to the surfaced lens
 - Routes the job per the routing tables

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RX ENTRY AS THE HEART OF THE DVI SYSTEM

- ◆ What does the Rx Entry program do?
 - Sets processing controls like:
 - Prism optimization
 - Block selection
 - Crib values
 - Reprocesses the job when additional data becomes available, e.g. tracing data, surface maps, etc. holding information based on the current state of the job (job surfaced, lenses logged, etc.)

RX ENTRY AS THE HEART OF THE DVI SYSTEM

- ◆ The importance of starting a job with as much information as possible.
 - Complete and correct fitting and pattern data allows proper selection of base curve, blank thickness, calculation of center and edge thickness, and optimal crib information
 - It prevents breakage that arises from improper physical qualities
 - It is important for a lab that surfaces and coats in-house, but it can be **even more** important for a lab that subcontracts for surfacing and coating because of additional expense and timing concerns

RX ENTRY AS THE HEART OF THE DVI SYSTEM

- ◆ Reviewing Edits & Example Jobs.
 - Edits and warnings provide insight into why the system is doing what it is doing
 - Example jobs as a support tool get to the key issues most quickly
- ◆ Using Rx Entry as a training tool – it is important to be able to explain things about the optical manufacturing process that aren't intuitively obvious AND provide support for internal education.

WARNINGS – EDIT REDUCTION

- ◆ Warnings indicate a place to improve your setup, lens availability, or database configuration – lens picks and frames.
- ◆ Some warnings are because a job cannot be produced until it is resolved, and others show an opportunity to improve setup.
- ◆ DVI has been working on reducing the amount of warnings that make a job an edit problem if it can be handled in other ways while still recording the warning.
- ◆ The warning report in Archive Reports <3,4,6,1 – Catalog – Reports – Std Reports> is a good point of entry (@WARN) [example](#)

WARNINGS – EDIT REDUCTION

- ◆ Wait to Trace – activated when frame is “oneshot” and RX is calling for $CT > 4.0$. Now log only (no stop – shows on Work Ticket) on auto process.
- ◆ Improved handling for special V bevels (STEP,INCL)
 - If a frame is setup with INCL and receiving job shows HB, use INCL without warn.
 - If a frame is setup with HB, allow using INCL with no warn.
- ◆ New jobs with frames that only have one temple will populate the temple length and temple type on the screen without becoming edits.

WARNINGS – EDIT REDUCTION

- ◆ Frame base limit warnings relaxed...doesn't warn until using frame curve creates generator curve problems or thick blank.
- ◆ BCCH Process (Digital Vendor controls BC selection)
 - Don't warn on base selection.
 - Exclude Digital Vendor controlled (BCCH) base selection from warnings for convex, etc.
- ◆ Duplicate checking enhanced for managing second pair jobs without becoming edit problems – more discussion on this later.

RX ENTRY



WARNINGS - NEW

- ◆ Lens Not Found message.
 - Improved to show if lists are all X'ed out. Review picks for proper availability.
 - Instructions added to specify Fin, MF, SZ to get cut graphic on finished.
- ◆ Warn on split MFR if thick blank uses different one.
- ◆ Enhancement to “default fitting value only” styles.
 - New warning 140 "Style uses default fitvals only".
 - Warn if they are present when the RX is processed.
 - Warn in the tools menu but enable deletion there.
 - Ignored in process results from DS calculation engine.

PROCESS RECOMMENDATIONS AND KEY ITEMS

- ◆ Warning management
 - Work frame and lens file regularly to bring warnings down
 - System work
 - Frame, lens, pricing and acct data
 - Using Account Setup <3,4,1,1> “Hold” fields for account notes or instructions which can lead to relentless warnings
- ◆ Repeated warnings that could be fixed by...
 - DVI coordination
 - Database work
 - Combob use
 - Customer interaction

PROCESS RECOMMENDATIONS AND KEY ITEMS

- ◆ Surfacing or Subcontracting without frame data
 - Frame/pattern search prior to surface ... especially subcon-surface
 - Utilize frame search tools before releasing job into process
- ◆ Finish lens management
 - Lab should get 75% pick rate out of main event products
 - Key opportunities to expand subbing into other products.
- ◆ Improvements to base charts for DVI Digital Aspherics (Sweeps)
- ◆ Implementation of thin first choice SF that move to thicker on stronger curves
 - Saves waste and tooling wear and processing time. Hoya and Zeiss seem to use this concept.
 - No more lenses required in the inventory room, just more OPCs.

RX ENTRY

PROCESS RECOMMENDATIONS AND KEY ITEMS

- ◆ Thin first choice usage vs thicker

| | | |
|-----------------------|---|---|
| 2.75Base 2.38-3.12 | HO75 UNC CThk: 6.5 True: 2.40 | ES75 MR10 CThk: 5.9 True: 2.60 |
| 3.50Base 3.13-3.87 | HO75 UNC CThk: 4.0 True: 3.37 | HO75 UNCV CThk: 5.4 True: 3.37 |
| 4.25Base 3.88-4.62 | HO75 UNC CThk: 5.7 True: 3.97 | SK75 UNC CThk: 8.0 True: 4.05 |
| 5.00Base 4.63-5.36 | HO70 UNC CThk: 4.0 True: 4.74 | HO75 UNCV CThk: 8.0 True: 4.74 |
| 5.75Base 5.37-6.12 | VE75 UNC7 CThk: 9.0 True: 6.02 | SK75 UNC CThk: 10.0 True: 5.66 |
| 6.50Base 6.13-6.99 | HO70 UNC CThk: 5.2 True: 6.24 | HO75 UNCV CThk: 9.0 True: 6.24 |

| | | |
|-----------------------|---|---|
| 2.75Base 2.38-3.12 | HO75 UNC W: 372.8 M: 2868.5 [3073.0] | ES75 MR10 W: 0.0 M: 14.5 [0.0] |
| 3.50Base 3.13-3.87 | HO75 UNC W: 221.0 M: 1906.0 [2531.5] | HO75 UNCV W: 2.5 M: 32.5 [45.0] |
| 4.25Base 3.88-4.62 | HO75 UNC W: 81.2 M: 759.0 [1045.0] | SK75 UNC W: 0.0 M: 0.0 [0.0] |
| 5.00Base 4.63-5.36 | HO70 UNC W: 130.2 M: 1097.5 [1553.0] | HO75 UNCV W: 93.8 M: 703.5 [373.5] |
| 5.75Base 5.37-6.12 | VE75 UNC7 W: 0.0 M: 225.5 [307.0] | SK75 UNC W: 0.0 M: 0.5 [0.0] |
| 6.50Base 6.13-6.99 | HO70 UNC W: 94.7 M: 629.5 [1047.0] | HO75 UNCV W: 69.7 M: 541.0 [344.0] |

PROCESS RECOMMENDATIONS AND KEY ITEMS

- ◆ For jobs coming in with pattern or frame sizing information from ECPs:
 - Frames set with “No job tracing” do not use remotely sent tracing and do not warn unless processing manually.
 - Popping the ED – when one-shots are entered with a smaller value than DVI’s default for jobs without a pattern – is restricted to edge jobs, uncuts will use the value entered.
 - Specifying axis overrides warning to prevent bad value entry

PROCESS RECOMMENDATIONS AND KEY ITEMS

- ◆ DVI creates tracing data from the default DVI shape when sending uncut jobs with “one shot frames”.
 - Ensures conservative cutout and thickness.
 - Transmit digital shape with sendrx.
 - Expand default B dimension if oc or seght up.
 - Override ED if entry less than default and no axis entered (unless surfaced).
- ◆ Update “Power Diff” warning to not warn if sending lab is DVI
- ◆ Enhancement to keep OPC of finished originally selected on subcontract jobs.
 - Enables tracking situation in finish labs that are subbing jobs that lab could have kept.

PROCESS RECOMMENDATIONS AND KEY ITEMS

- ◆ Thick blank warning revised
 - More accurate checks on plus lenses. Checks in more places.
 - Correction to blank thickness for front side progressives. They are molded with BD prism, makes upper thinner. Lower thicker
 - Updated graphic on Work Ticket. More information in message.
 - Edge = Soft warning, Center = hard stop with graphic showing “squiggle” in center.
 - Learn how to use the graphic “hover” in Rx, work with DVI on how to analyze.
 - Establish procedures for edge vs center handling.
 - Lens pick analysis
 - Work ticket graphic analysis

PROCESS RECOMMENDATIONS AND KEY ITEMS

◆ Thick blank warning revised

| Tray | Acct | Patient | Rx# | Ship | Edge |
|------|------|----------|-----|------|------|
| 999 | 3035 | THK WARN | | | E |

SCOTT D.C. OPTICAL 503-231-6606

| Sphere | Cylinder | Axis | Dist | Near | Form | Enc | In/Out | Prism | Up/Dn | Prism |
|--------|----------|------|------|------|------|-----|--------|-------|-------|-------|
| +6.00 | -0.50 | 8 | 29.5 | 27.0 | | | | | | |
| +6.00 | -0.25 | 28 | 31.0 | 28.5 | | | | | | |

| Lens | Material | Color | Add | Seght | Thck | E/C | Ocht |
|------|----------|-------|-----|-------|------|-----|------|
| SV | PLY | CLR | | | | | |
| SV | | | | | | | |

| Base Curve | MfSz | Coats | Fa |
|------------|------|-------|----|
| | | | |
| | | | |

| Coats | Tint |
|-------|------|
| | |
| | |

| Stat | Frame |
|------|-------|
| S | COLE |

THICK BLANK OK?
Lens= ES81 Base= 7.00
LensCt= 6.99
BlnkCt= 7.00
Need 0.50 at Blank ctr
Rt
Need BlnkCt > 7.49 ..continue? (y/n)

LENS SELECTION - FINISHED

- ◆ Continuous work on substitution processes (Coat and Aspheric and vertical move for cutout) – We have specific reports that show substitution rates [Rpt Example](#)
- ◆ “OC Up” move for finished now works on uncoated lenses.
- ◆ Colors (e.g. mirror) and scratch coats pop like AR
- ◆ New “match MFR” routine used for both Factory & Lab AR Coating uncoated finished
 - We have one customer getting an 80% fill rate
- ◆ Cut out message shows 1st “biggest” lens that won’t cut...not the last

LENS SELECTION - FINISHED

- ◆ Scratch coats requiring uncoated will only select coatable (formerly “strippable”) for both F and SF (So no longer necessary to force SF if no finished appropriate).
- ◆ Scratch coats not set “try uncoated” will split mfr’s without warning.
- ◆ Save finished lens OPC for recording demand when job 1st picks finished but customer either logs or forces (“SF”) semi-finished without changing power/style, etc. Original demand track so shorts will be ordered.
- ◆ ¹⁸ Better reporting to find substitution opportunities and to track SF.

LENS SELECTION – SEMI-FINISHED

- ◆ Keep from convex grind in base chart lookup.
- ◆ Thick blank check (find a better lens pick) changed to see if next blank is thicker in center or if the rear curve is steeper.
- ◆ Base curve matching on digital add raises to avoid convex. Match to increased amount.

FINISH, AR AND SURFACE PROCESS UPDATES

- ◆ Layout enhancements (AR Process)
 - SV platform progressives centered to minimize crib as much as possible.
 - Keeps more lens in the “Crib to AR Ring” process.
 - Close cuts on SV platforms use med pt (best cut) layout for clearance.
 - Stay more on frame center and grind prism. Done mostly for smaller crib which helps efficiency in the “Crib to AR Ring” process (and surfacing too)
- ◆ Wrap frame processing on SV platform shifts to med grind on close cut out to improve clearance. (Finish)
- ◆ Computer lens (ES) option for using “block fit”. (Surface)
 - Has been being handled by pressing heavily into distance which can cause unwanted prism.
 - Lining the bottom of the ring with putty prevent alloy leaking when surface blocking.

FINISH, AR AND SURFACE PROCESS UPDATES

- ◆ ART Blocker enhancements (Surface):
 - ART Blocker volume calculation fine-tuned (implemented and reportable)
 - Produce a peripheral array of glue thickness for ART blocker de-blocking process.



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NEW CAPABILITIES

- ◆ DVI Spot seg enabled for SV (including cast SV Lenticular styles) with easy defaults to enable only specifying the add amount.
- ◆ Myodiscs to always show graphic with lines where the blank misses in thickness.
- ◆ Improved handling for a variety of specialty lens types.

FUTURE PLANS

- ◆ DVI bevel control improvements ala MEI Smart Bevel.
- ◆ Continue to reduce edit problems and continue to enhance processing.
- ◆ Find ways to improve database management.
- ◆ Find ways to connect the right patterns to jobs quickly and easily.

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THANK YOU

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