FeneVision® Best Practice

Glass Reject Implementation

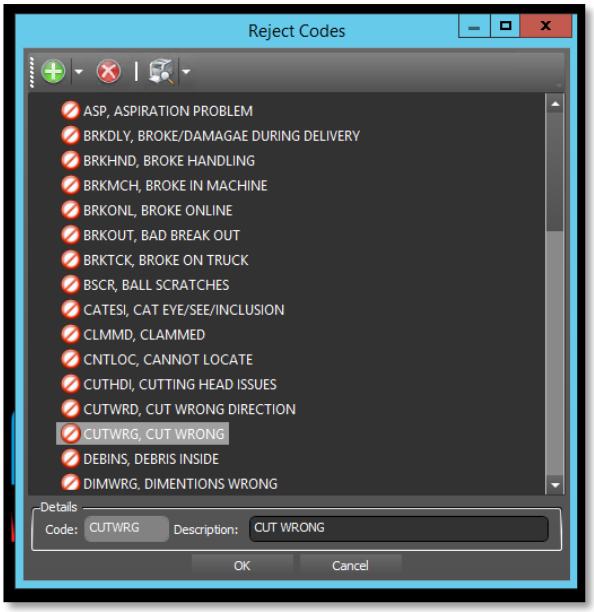
Introduction

This document will explain the recommended methods to configure glass reject part types, their assignments and Tracking station settings.

Note that the Glass Setup module can apply part type assignments if that module is enabled.

Reject Code Setup

Reject codes should be setup first before performing any configuration. These codes should be chosen carefully as these codes will be how rejects are tracked and reported. Codes can be added any time in the future as well. Reject codes can be created and managed in Setup > Rejects > Codes. The code is limited to 6 characters and is shorthand for the description of the code. The description is used to communicate a more detailed description of what the reject code means.



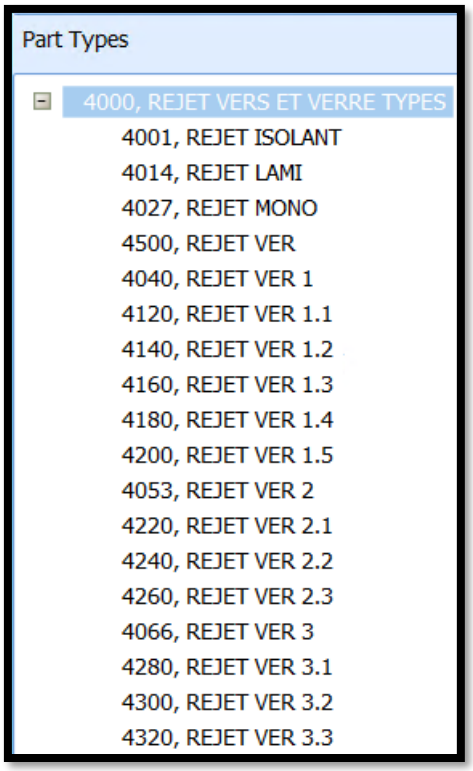
Advanced User Note: Adding reject codes to groups allows the user to define what reject codes appear for each order type in order entry. To accomplish this, the [OrderTypes] table in the [FVMaster] database must be customized with reject group assignments. Please contact FeneTech for help with this functionality.

	OrderType	Description	Sequence	Flags	RejectGroup
1	0	Quote	1	8	NULL
2	1	Order	2	15	NULL
3	2	Credit	3	0	NULL
4	3	Invoice Only	4	0	NULL
5	4	Manufacturing	5	7	NULL
6	5	Forecast	6	2	NULL
7	6	Pickup	7	4	NULL

Part Types

Part types are used for many things throughout the system. They are used heavily when rejecting units on the floor. Part types are managed in Setup > Products > Part Types. The below image shows a standard set of reject part types. This set of part types should include all the following.

- Unit level part types (IG, Lami, Mono)
- Lite level part types (1, 1.1, 1.2, …, 2, 2.1, …, 3, etc.)
- A lite independent part type (“REJECT LITE” or “REJECT GLASS”)



Note: The above is in French. See the following translations as needed. Rejet=Reject, Isolant=IG, VER=Glass.

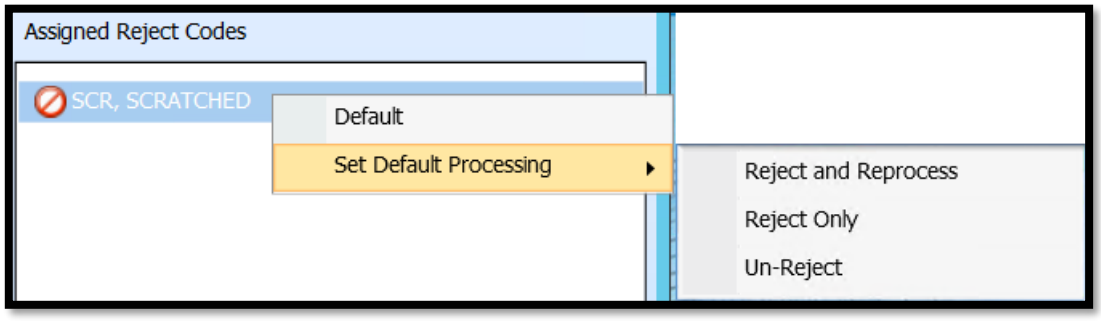
The IDs are not important but must be distinct. It is best practice to group these part types under a general reject part type (“REJECT LITES AND GLASS TYPES”). Glass Setup requires that this grouping be used if the user wants to take advantage of the auto-assignment feature.

Reject Part Types

Now that reject codes and reject part types configured, those need to be linked together. This is done in Setup > Rejects > Part Types. From this screen, reject codes are assigned to part types. This is important as all reject codes should not be available for all reject part types. Reject codes can be assigned to multiple part types.

For example, a “BROKEN IN QUENCH” reject code should not be available for the “REJECT LITE 1” part type, but instead should be assigned to the “REJECT IG” part type. Be selective when assigning reject codes to part types as the user can only see 4 to 5 reject codes at once and will be less willing to scroll through a long list to pick the correct code.

Once a reject code is assigned to a part type, it can be selected as the default reject code for that part type. Each reject code can also be assigned a default reject behavior. These defaults will affect the rejecting process in Tracking and Trucking. See the Default Processing section below for more information on these settings.



Note: Default setings can be overridden per station as well. This will be explained below in the Reject Stations section.

Default Processing

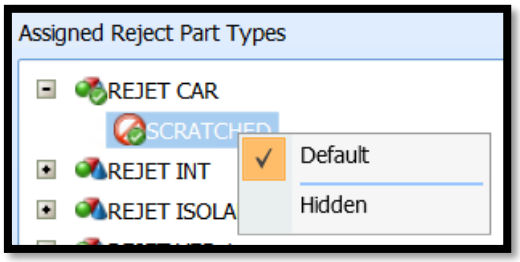
For each reject code, a default processing method can be defined that is selected when a reject code is chosen in Tracking, Trucking or Opti-Break. Each reject code can have its own default process. The same reject code can have a different default process per part type.

- **Reject and Reprocess –** If rejecting and reprocessing a lite of glass, the glass will be put into the remakes pool. However, if rejecting a finished good like an IG, then the unit will be sent back into CORE to be remade as materials such as spacer and butyl must be consumed again. These units will be available to be rescheduled through the remakes screen in CORE.
- **Reject Only –** The unit will be rejected; however, it will continue its workflow. A practical application of this is the glass is scratched, but the floor worker can just buff out the scratch instead of having it remade. In this case, the glass will continue its original workflow.
    a. *Note: The user does not have to Un-reject and accept the glass back at that station. Rather, accepting the glass at the next station will allow the glass to continue its workflow.*

    b. *Note: This processing option can be removed in newer version of the software using a setting.*
- **Un-Reject –** Clears the rejecting flag. This is typically used if a lite/unit was accidentally rejected.

Reject Stations

For each station, reject part types must be assigned. The assigned reject part types will determine which types the user can use at that station and thus which reject codes. Once assigned, part types and their corresponding reject codes can be defaulted using a right mouse click. As noted above, these defaults take precedence over Reject Part Types settings. Reject codes can also be hidden. This can be useful if a part type is used for multiple stations, but some of the reject codes should not be visible at both stations.



Standard Reject Stations

Typically, the lite independent part type (e.g., “REJECT LITE”) is assigned to the majority of the stations, while the unit level part types (e.g., “REJECT IG”) are only assigned to those stations that deal with the finished unit. The lite specific part types (e.g., “REJECT LITE 1”) are used at stations that deal with multiple lites of glass coming together (Insulation and Lamination).

Single Lite Operations

These part types should be used for any operation that is done on a single lite of glass. Example operations are the following: Fabrication, Edgework, Seaming, Painting, Tempering, Heat Soak, etc.

Assigned Part Type(s): The lite independent part type only (e.g., “REJECT LITE”)

Note that at a post-lamination processing station, the additional “REJECT LAMI” part type is required. This does cause both part types to appear even when scanning a single lite of glass, but the reject results are the same. The only other way to get around this is to create a post-lamination station with only the “REJECT LAMI” part type assigned.

Lamination

Lamination Entry

Both the individual lite-layers and the entire lite can be rejected.

Assigned Part Type(s): Lite and layer specific part types (e.g., “REJECT LITE #” and “REJECT LITE #.#”)

Lamination Exit

The lite has been assembled, so only the entire lite can be rejected.

Assigned Part Type(s): Lite specific part types (e.g., “REJECT LITE #”)

Note: Lite and layer specific part types are sometimes assigned here as well.

Insulation

Insulation Entry

Both the individual lites and the entire unit can be rejected.

Assigned Part Type(s): Lite specific part types (e.g., “REJECT LITE #”) and the IG unit part type (e.g., “REJECT IG”)

Insulation Exit

The unit has been assembled, so only the entire unit can be rejected.

Assigned Part Type(s): IG unit part type (e.g., “REJECT IG”)

Part Setup

Part type assignment is done via Part Setup location in Setup > Products > Parts. These assignments are a crucial piece of configuration. There are four “levels” of parts that need part types assigned.

Ordered Units

These parts include “IG”, “LAMI” and “MONO” in standard configurations. Any parts using the main parts as a substitute part should have the same assignments as their assignment.

Each ordered glass part should have its own part type. For example, the “REJECT IG” part type should be assigned to the ordered “IG” part.

Lite Parts

The LITE1, LITE2 and LITE3 parts should have their corresponding part types assigned. For example, the “REJECT LITE 2” part type should be assigned to the “LITE2” part. These parts should also have the “REJECT LAMI” part type assigned for the case of post-lamination processing.

Lite-Layer Parts

The LITE1.#, LITE2.# and LITE3.# parts should have their corresponding part types assigned. For example, the “REJECT LITE 2.1” part type should be assigned to the “LITE2.1” part.

Glass Parts

The dynamic glass parts in the BOM should **not** have part types assigned. These assignments are not passed along to the dynamic part when the BOM is evaluated. Each glass part (parent parts only, not inventoried stock sheet parts) must have the part types assigned. Luckily, Glass Setup handles this assignment, see this document’s Introduction.

In other words:

- The “GL060.CL” part should have **all** reject part types assigned

- The “GL060.CL.096x130” part should have no reject part types assigned
- The “{LITE 1 TYPE}” (dynamic glass part) should have no reject part types assigned
    a. This can have the reject part types as this configuration is never used

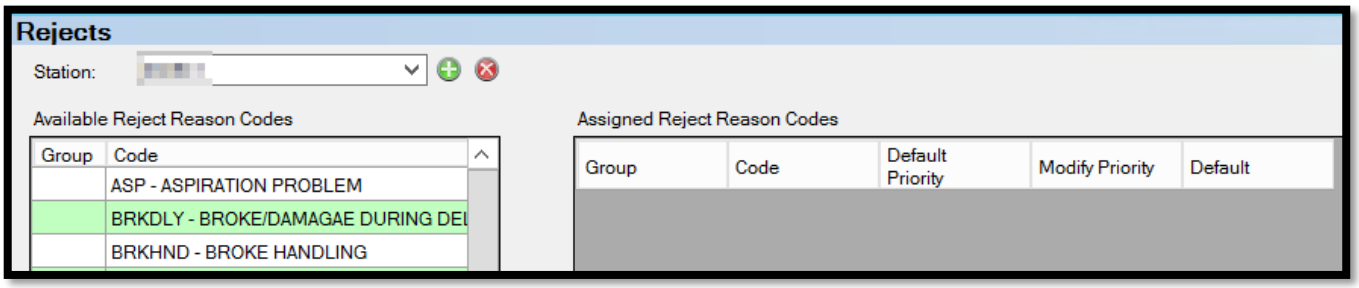
Note: Typically, all reject part types are assigned to the glass parts.

Opti-Glass

Reject codes can also be used in Opti-Glass; however, this is typically not configured as it may slow down the cutting table operators and the reject reason (code) is almost always the same. If interested, the functionality is explained below.

In Opti-Glass > Settings > Rejects, the available reject codes will be shown in a list. Those codes can then be assigned to stations as needed. Each reject code can have a default priority to determine what to do with the lite once rejected. “Modify Priority” allows the employee at the cutting machine to change the priority of the reject code on the fly at the machine.

An example would be a bad DXF. The priority should not be dynamic or the lite would be reprocessed incorrectly repeatedly. Instead, the priority should be set to manual. If the glass was just scratched, it can be reprocessed immediately using dynamic priority.



Note: When a reject occurs in Opti-Break/Track/Temp the “RejectCode” GSP value is the reject code that will be used if no reject codes are set up for the station. If this GSP does not exist, the first reject code in the RejectCodes table will be used. If there are no reject codes in that table, “R00” will be used.

*Note: In current versions, remakes are recut at the station it was originally cut at, **not** the station the unit was released to. I.e., if a unit was scheduled to be cut at CUT1 and ended up at CUT2, a remake for the unit must be cut at CUT2. This was introduced in 10.12 SP 09.*

Reject Priorities

For each reject code, the remake priority can be decided. Each reject code assigned to a station can be linked to one default behavior.

- **Unassigned –** Not reprocessed until priority is set to one of the other levels.
- **Manual –** Will be reprocessed manually outside of the system.
- **Normal –** The remake is reprocessed in the same manner as today.

    a. It could be reprocessed automatically via dynamic mode or included in another release.
- **Re-release –** Reprocessing will require that the remake be included in another release.
- **Dynamic –** Reprocessed in dynamic mode and not available to be included in another release.

Note: When a remake is directly recut at Opti-Break ("dynamic" mode mentioned above), it is automatically sent to the table that originally cut it, in the release called "Remakes". The operator can check "all machines" and see all remakes from all tables.

Tracking Settings

This section will outline typical tracking station settings relating to rejecting.

Single Lite Operations

These settings should be used for any operation that is done on a single lite of glass. Example operations are the following: Fabrication, Edgework, Seaming, Painting, Tempering, Heat Soak, etc.

Mode: Part Updating
Enable Master and Parent Key Rejecting: Yes
Reject All Sub Assemblies: Yes

Lamination

Lamination Entry

Both the individual lite-layers and the entire lite can be rejected. Master and parent key rejecting is enabled as it allows the user to scan a lite of glass and instantly know which layer the lite of glass belongs to. Without master and parent key rejecting enabled, the user would see all of the reject part types for "1.#" and be forced to choose which one to reject. Master and parent key rejecting chooses the correct lite of glass for the SUMP.

Mode: Work Route Updating
Selection Mode: Rack
Enable Master and Parent Key Rejecting: Yes
Reject All Sub Assemblies: Yes

Lamination Exit

The lite has been assembled, so only the entire lite can be rejected. Note that it is also common to run this station in Part Updating mode requiring a scan of the previously printed LITE# label.

Mode: Work Route Updating
Selection Mode: Rack
Enable Master and Parent Key Rejecting: Yes
Reject All Sub Assemblies: Yes

Insulation

Insulation Entry

Both the individual lites and the entire unit can be rejected. The user will be prompted with both lite and IG unit reject part types.

Mode: Work Route Updating
Selection Mode: Work Route
Enable Master and Parent Key Rejecting: No
Reject All Sub Assemblies: Yes

Insulation Exit

The unit has been assembled, so only the entire unit can be rejected.

Mode: Ordered Part Updating
Enable Master and Parent Key Rejecting: No
Reject All Sub Assemblies: Yes

Packing/Crating

Mode: Container Tracking
Enable Master and Parent Key Rejecting: No
Reject All Sub Assemblies: Yes

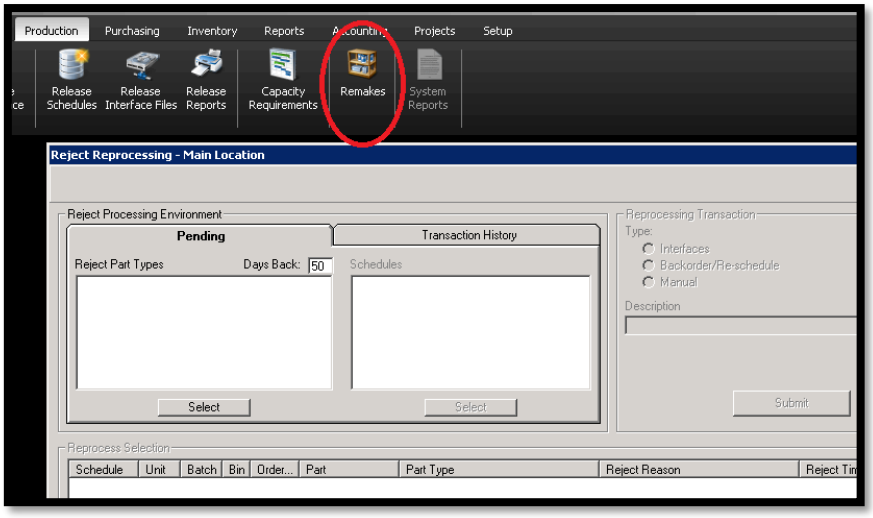
Miscellaneous

The following sections include information about other areas of the system related to rejects.

CORE Remake Reprocessing

When a remake is generated in Tracking, the user can optionally decide to do any of the following reprocessing transactions from CORE should the glass not go directly back into Opti via the Reschedule Part type set up in Work Route Setup.

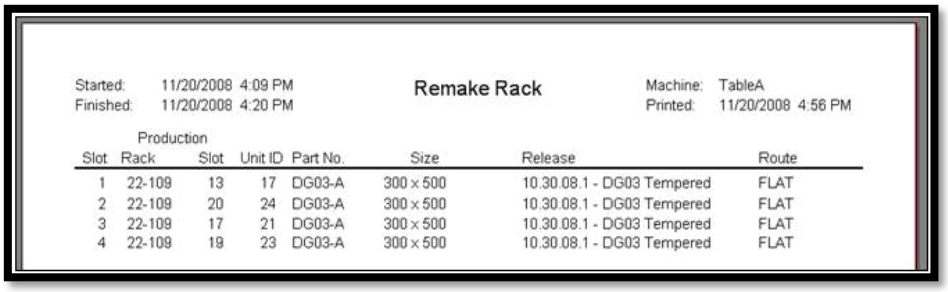
- Print new reports
- Print new labels
- Generate a new interface file (i.e., for bending the spacer in case the floor does not want to bend the new spacer using the original file)
- Reschedule the item (only when the complete product has been rejected)



See the user manual for the detailed information about the use of this screen.

Remake Rack in Opti-Break

Opti-Break can assign a remake rack and slots for the remakes (only harp racks are supported as remake racks). The remake rack will include the remakes and a remake list with the work route and original release of each item.



Started: 11/20/2008 4:09 PM
Finished: 11/20/2008 4:20 PM

Remake Rack

Machine: TableA
Printed: 11/20/2008 4:56 PM

Slot	Production Rack	Slot	Unit ID	Part No.	Size	Release	Route
1	22-109	13	17	DG03-A	300 x 500	10.30.08.1 - DG03 Tempered	FLAT
2	22-109	20	24	DG03-A	300 x 500	10.30.08.1 - DG03 Tempered	FLAT
3	22-109	17	21	DG03-A	300 x 500	10.30.08.1 - DG03 Tempered	FLAT
4	22-109	19	23	DG03-A	300 x 500	10.30.08.1 - DG03 Tempered	FLAT

Note: The remake rack is mainly used to print a list with its content. It does not use all the rack assignment rules and stacking rules that are used during schedule release.

See the chapter about “Racks” in the Opti-Break user manual for detailed information about the use of remake racks.

Rejects and Capacity Planning

If Tracking and Opti-Break stations are properly assigned to their capacity work cells in ‘Capacity Work Cell Setup’, rejecting a component (either a glass, a laminated glass, or an IG) will update the already completed quantity in capacity. The rejected items will reappear on the “open production report by work cell” of the previous capacity work cells. The planned date will remain the original plan date and will display these rejected items on top of the list, since these lists are typically sorted by production planned date ascending.

Reject Priorities

For each reject code, the remake priority can be set.

- **Unassigned –** Not reprocessed until priority set to one of the other levels (set by a responsible).
- **Manual –** Will be reprocessed manually.

- **Normal –** The remake is reprocessed in the same manner as today. It could be reprocessed automatically via dynamic mode or included in another release.
- **Re-release –** Reprocessing will require that the remake be included in another release.
- **Dynamic –** Reprocessed in dynamic mode and not available to be included in another release.

Each Tracking or Opti-Break station must be linked with some rejects codes and each reject code is linked to one default behavior. This is configured in Opti-Glass > Settings > Rejects.

Note: When a remake is directly recut at Opti-Break ("dynamic" mode mentioned above), it is automatically sent to the table that originally cut it, in the release called "remakes". The operator can check "All Machines" and see all remakes from all tables if required.

Additional Notes

1. The base glass label shows how many days behind a remade lite of glass is behind the original release date.
2. **Logon Required - Rejecting** – Anyone with a system logon will be allowed to reject when this mode is on. There are no permissions that can be set for this.