

What's New

Major new features and changes in ProNest 2023. For a complete version history, please visit the [online knowledge base](#).

ProNest 2023 v15.3.0

- Tekla PowerFab Connector
- Vaporize
- Search in subfolders for CAD parts

ProNest 2023 v15.2.0

- Multiple crop lines per nest
- Cut up empty plate using crop lines
- Change cut direction of crop cuts
- Apply crop lines using XY coordinates
- Small entity detection
- Move machine home on remnants

ProNest 2023 v15.1.0

- Profile cut sequencing
- Drag a box sequencing method

ProNest 2023 v15.0.3

- Use the Production Manager web app on the EDGE Connect CNC
- Production Manager queue on the EDGE Connect
- Automatic discovery of EDGE Connect CNCs
- Smoothing improvements for gradual bevel

ProNest 2023 v15.0.2

- OMAX file support for XData
- Enhanced Quality support for OMX and ORD files

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- PlateSaver settings

- Split multi-pass bevel profiles
- Visualize slats on the nest
- OneClick enhancements
- Search for jobs using quote number
- Inventor part naming using part number
- Pass STRUMIS part data into ProNest

ProNest 2023 v15.0.0

- Production Manager
 - Keep track of scrapped parts
 - Freeze nests
- Welcome screen
- Customize the ribbon

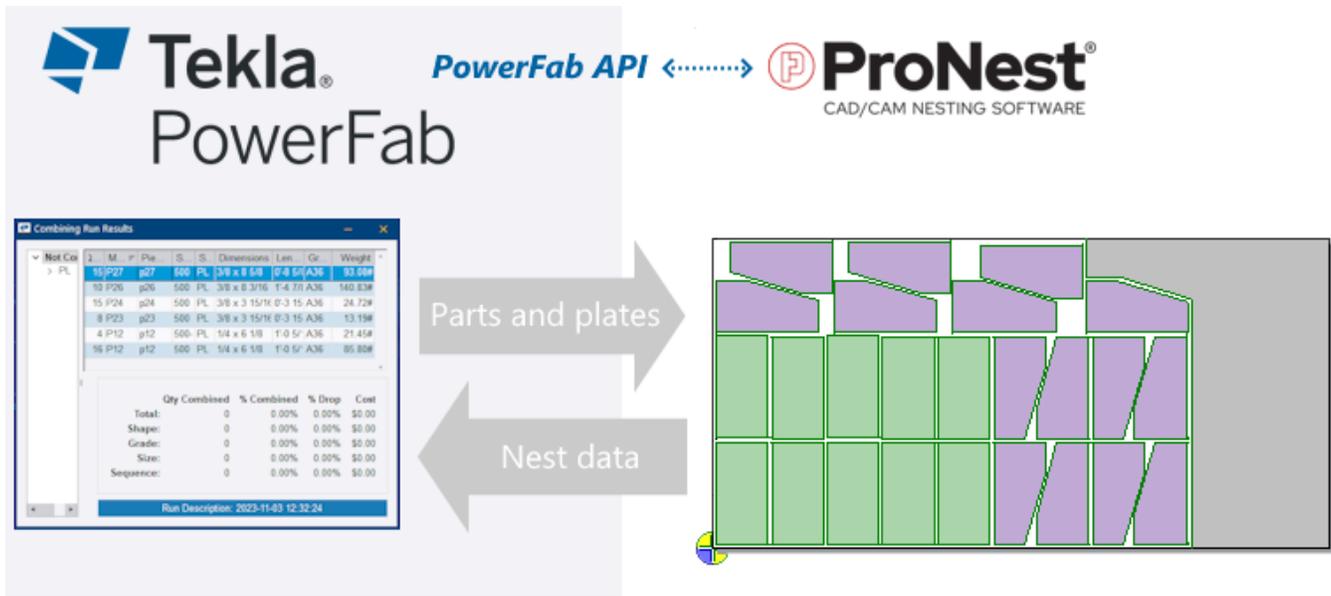
ProNest 2023 v15.3.0

Released November 2023

TEKLA POWERFAB CONNECTOR

Direct API integration

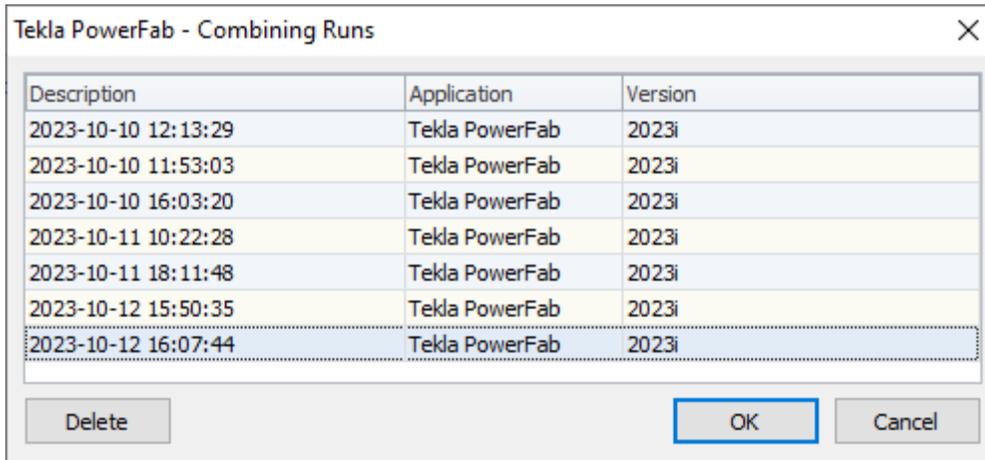
The Tekla PowerFab Connector for ProNest has been completely redesigned, providing improved job management for companies using both ProNest and PowerFab. ProNest users can easily nest combining runs of parts and plates from PowerFab, ensuring optimal material utilization. As nests are created and processed, results are immediately available in PowerFab.



The connector now uses a direct integration between ProNest and Tekla PowerFab, which works using the Tekla PowerFab API and ProNest Server. This provides fast and efficient communication between the two systems. Information about combining runs and inventory is available in real time.

Select from a live list of available PowerFab combining runs in ProNest

Combining runs exported from PowerFab are visible in ProNest.



Any ProNest user can select a combining run and it will become unavailable to other users. Parts and plates in the combining run are added to the job, ready to be nested.

Live view of PowerFab inventory in ProNest

The Edit Plate List in ProNest has a view of available inventory from PowerFab.

Plate Sources

Custom Plates | **Inventory** | Tekla PowerFab

Shape:

Name	Length	Quantity	Material	Thickness	Grade	Width	Plate Type	Weight
1/8 x 48	48.0000	10 MS		0.1250	A572-50	48.0000	Rectangular	816.6
1/4 x 48	96.0000	12 MS		0.2500	A572-50	48.0000	Rectangular	3919.9
1/2 x 48	96.0000	10 MS		0.5000	A572-50	48.0000	Rectangular	6533.4
1/2 x 60	120.0000	17 MS		0.5000	A36	60.0000	Rectangular	17354.4
1/2 x 60	144.0000	19 MS		0.5000	A36	60.0000	Rectangular	23275.4
5/8 x 48	144.0000	1 MS		0.6250	A36	48.0000	Rectangular	1225.0
5/8 x 48	144.0000	10 MS		0.6250	A36	48.0000	Rectangular	12250.1
3/4 x 48	48.0000	1 MS		0.7500	A36	48.0000	Rectangular	490.0
3/4 x 48	96.0000	30 MS		0.7500	A36	48.0000	Rectangular	29400.0
1 x 48	48.0000	1 MS		1.0000	A36	48.0000	Rectangular	653.3

Plate List - (Empty)

Remove Plate | Reserve All | Release All | View PowerFab Properties

Name	Qty	Nested	Size	Material

Preview

Properties: Tekla PowerFab

- Quantity
 - Stack: 0
- Attributes
 - Safe Zone ...
 - Priority: 0

You can add PowerFab plates to any ProNest job as needed. Plates can be filtered by shape type (PL, ALPL, PLGA, and so on) and plate data is viewable in ProNest.

Nest on custom plate and push plate to PowerFab

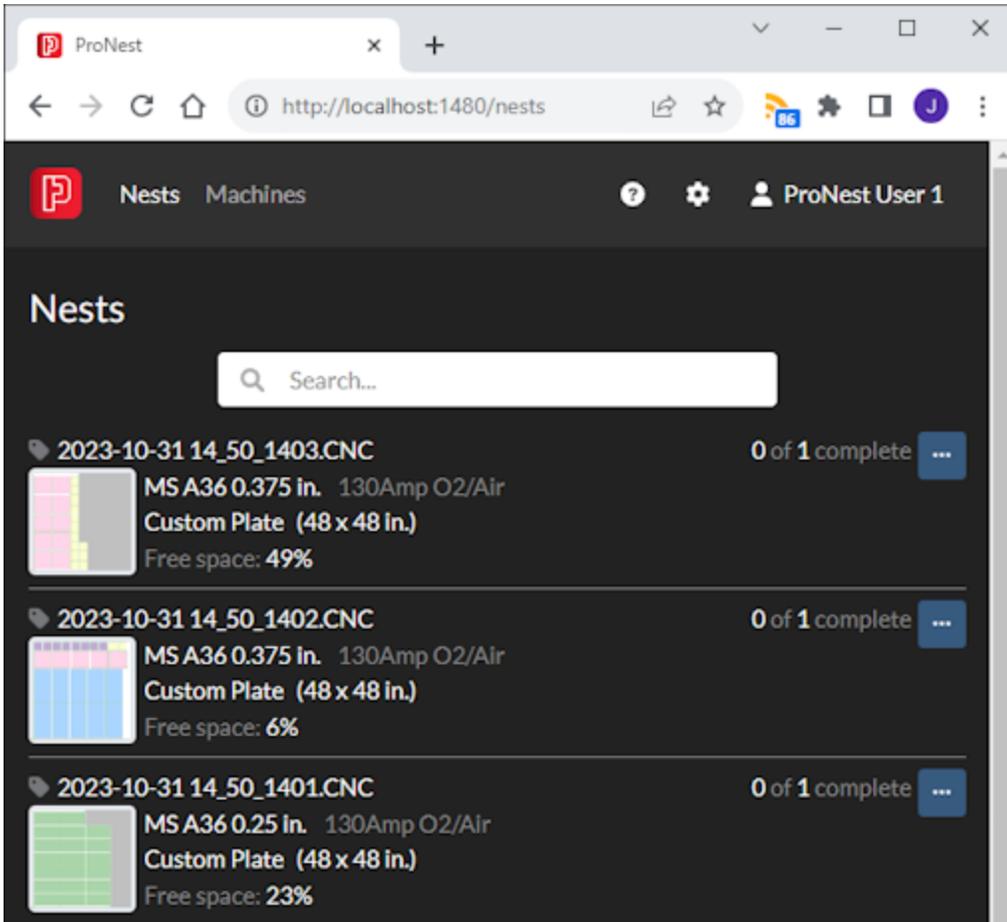
Any parts, whether they came from a combining run or not, can be nested on custom plate that didn't originate from PowerFab. When a nest is output, the custom plate is sent to PowerFab and either matched with available inventory or added as new orderable plate in a requisition.

Specify requisition number directly in ProNest

Requisition Number can be specified directly in ProNest for nests in that job.

Use the web app to process nests

View a list of saved nests in the ProNest web app and complete them as they are processed. Take From Stock is simultaneously done in PowerFab.



This page is available for any user as part of the interface (Production Manager is not required).

Alternately, you can use PowerFab Go to complete nests.

Configure part naming

Part Name can be configured to use *Main Mark - Piece Mark* or just *Piece Mark*.

CUT SEQUENCE

Vaporize

A new Vaporize settings page is available, allowing you to control when vaporize profiles are sequenced relative to other types of profiles on the nest. Options allow you to group vaporize profiles by profile, part, or nest. An additional option is available for inserting vaporize profiles before the first cut, scribe, or punch in the sequence.

This feature is for laser machines that support vaporize only.

WORK ORDERS

Search in subfolders for CAD parts

ProNest can search in subfolders for a CAD file specified in an work order when using the "Search in subfolders" preference. This is useful in cases where work orders were imported into ProNest without a full path to the correct CAD source file, or in cases where CAD files have moved between different folders. If you have a file system that uses many levels of subfolders, using subfolder search can save time because you can quickly specify a higher-level folder without having to get the full path for each individual CAD file.

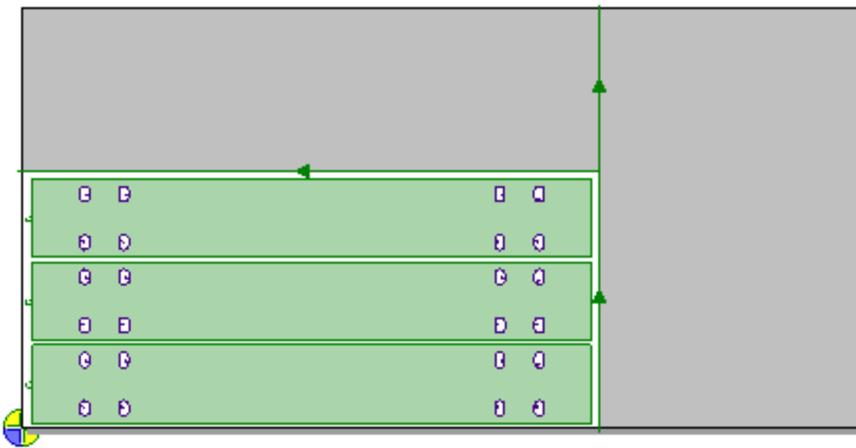
ProNest 2023 v15.2.0

Released June 2023

CROP

Multiple crop lines per nest

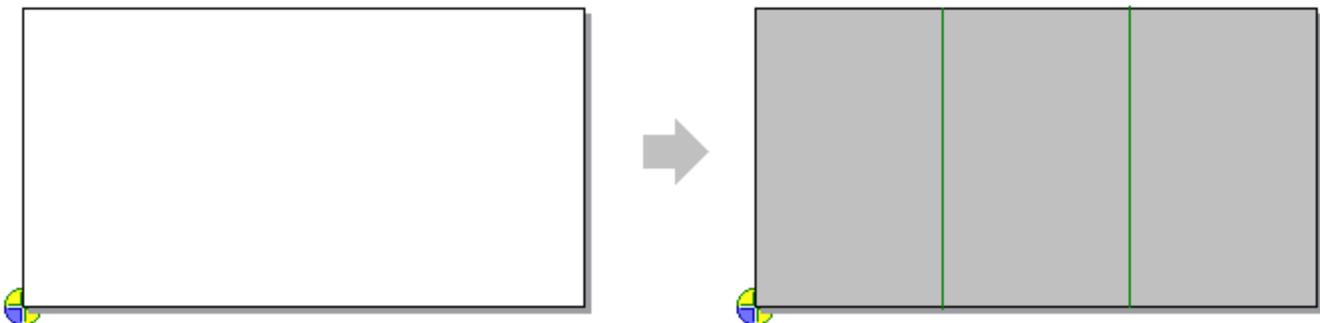
Apply multiple crop cuts to a single nest. This can make plate handling and storage easier when the remnant is an irregular shape and you want to cut it into smaller, more manageable pieces, such as rectangles.



You can add multiple crop lines in Crop mode. Crop lines can start or end at a point on an existing crop line or at the plate edge. Also, additional crop lines can be added on nests where AutoCrop is already applied.

Cut up empty plate using crop lines

An empty nest with no parts can be cut up with one or more crop lines. You can use this to divide a plate on a large cutting table into smaller plates that would fit on smaller cutting tables.



Remnants can be cataloged in inventory for later use.

Change cut direction of crop cuts

You can now edit the cut direction of any crop line in Crop mode. This can be used for crops that were added manually or automatically using AutoCrop.

Apply crop lines using XY coordinates

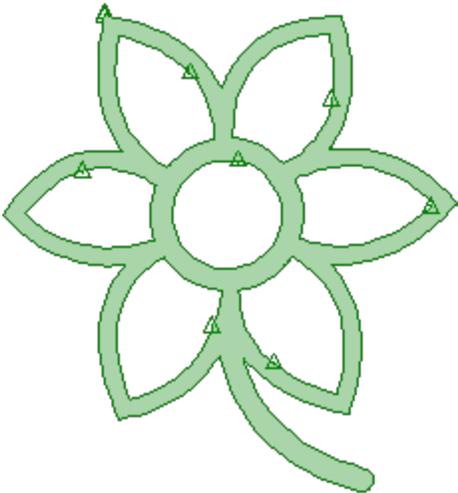
Place crop lines at a precise location on the plate by entering XY points in Crop mode. Absolute and incremental XY values are supported.

CAD IMPORT

Small entity detection

The new CAD import property "Small motion tolerance" allows you to set a length that will display a warning when you import a part containing a line or arc entity smaller than that threshold. This also applies to motions on lead-ins and lead-outs. Small motion detection is a useful way of identifying motions that are smaller than kerf width or other length value, which can cause errors at the machine or may result in poor cut quality.

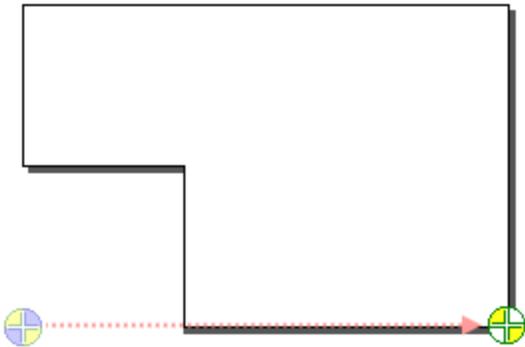
Small entities are indicated with a triangle icon () over the entity in the Preview of the Edit Part List.



REMNANTS

Move machine home on remnants

A new CNC Output setting “Move to corner instead of closest point on plate” is available for remnants that do not have a corner at the standard machine home. This setting allows the machine home point to move to a corner on the remnant, making it easier to home the cutting head on irregular-shaped workpieces.



Additionally, changing any of the settings under “Adjust machine home on remnants” immediately updates the machine home icon on the nest, without having to output or enter Cut Simulation.

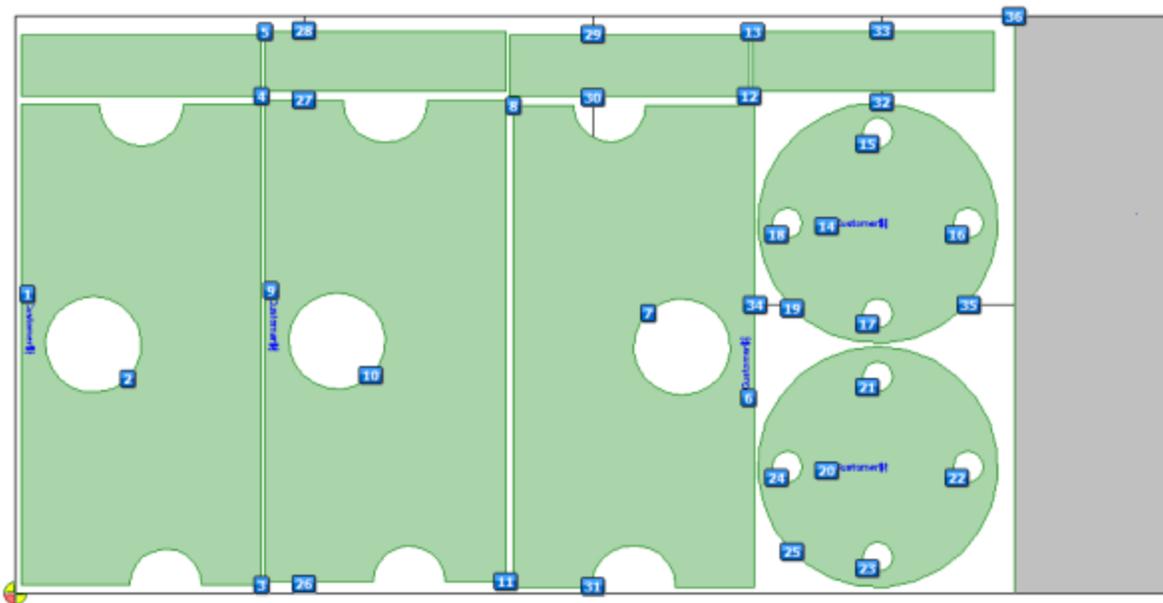
ProNest 2023 v15.1.0

Released March 2023

CUT SEQUENCE

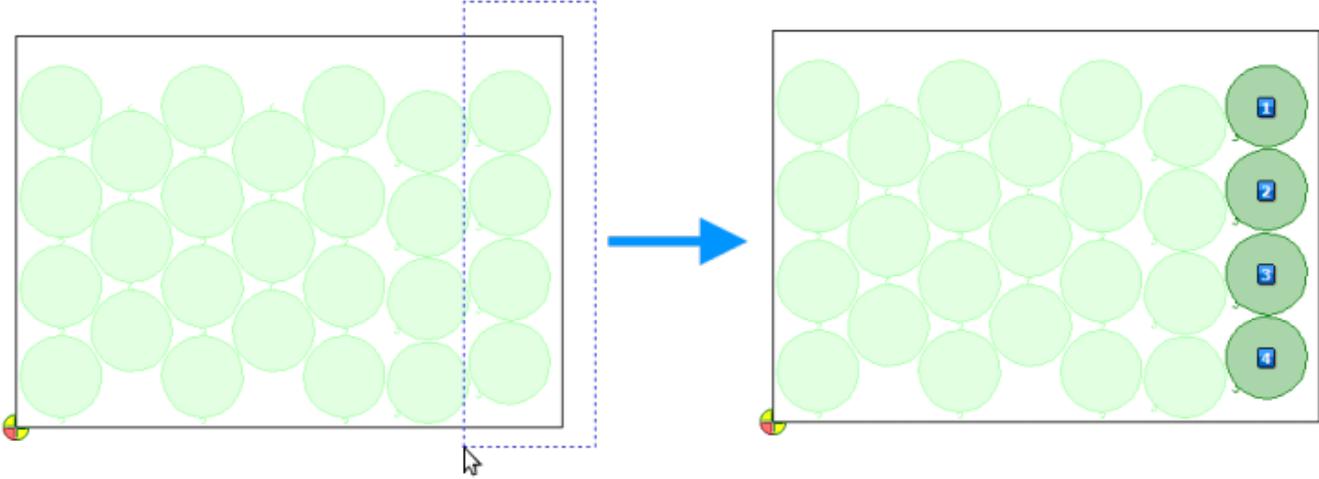
Profile cut sequencing

Profile Cut Sequence mode allows you to sequence interior profiles, exterior profiles, skeleton lines, and crop lines on a nest. This convenient mode doesn't require you to take individual parts into Advanced Edit to sequence interiors.



Drag a box sequencing method

In any cut sequencing mode on the nest or in Advanced Edit, easily sequence profiles by clicking and dragging a box around them. Sequencing by dragging provides a quick way of sequencing profiles on a part or nest, without clicking on each individual profile or relying solely on cut sequence settings.



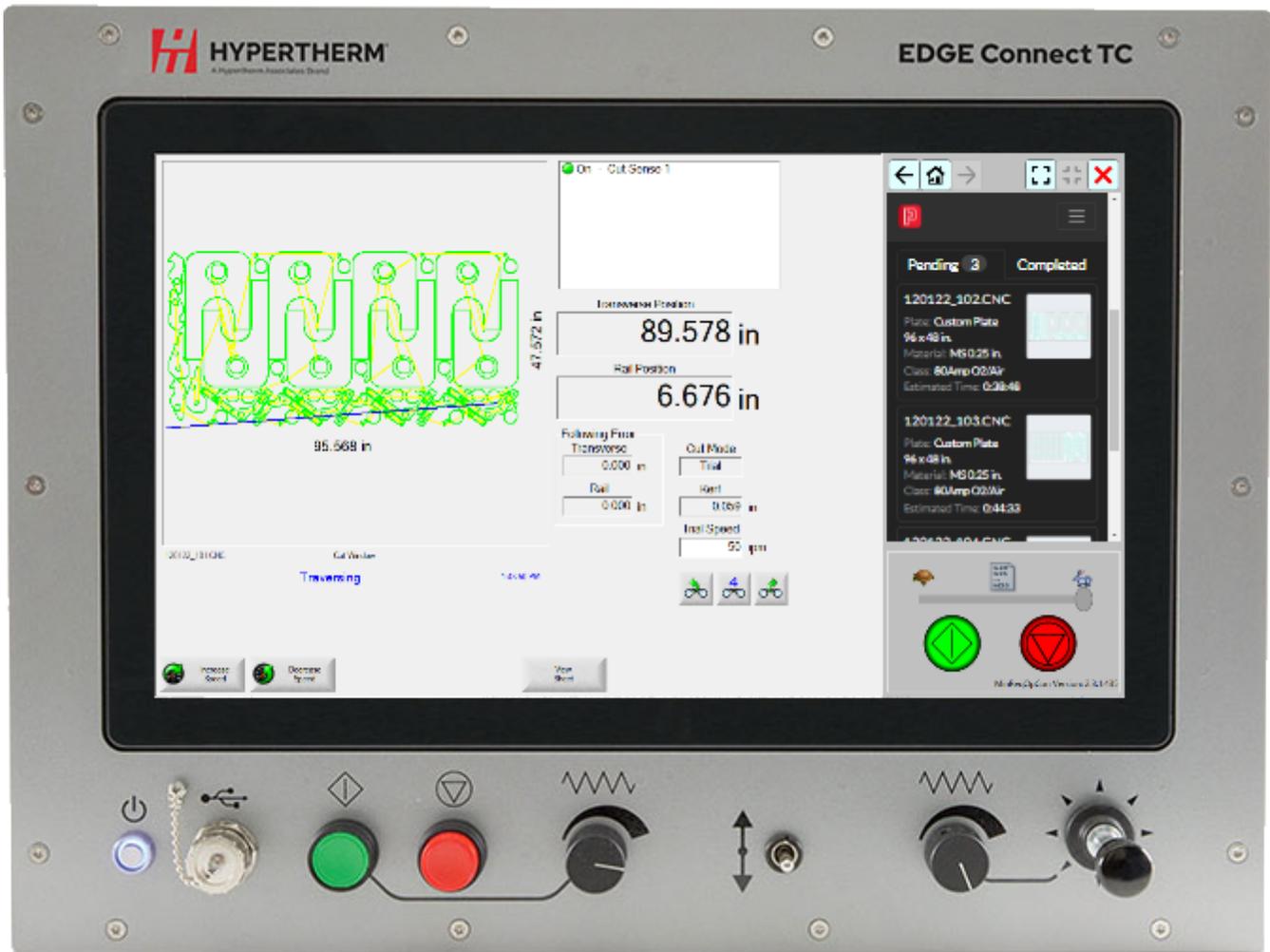
ProNest 2023 v15.0.3

Released January 2023

PRODUCTION MANAGER

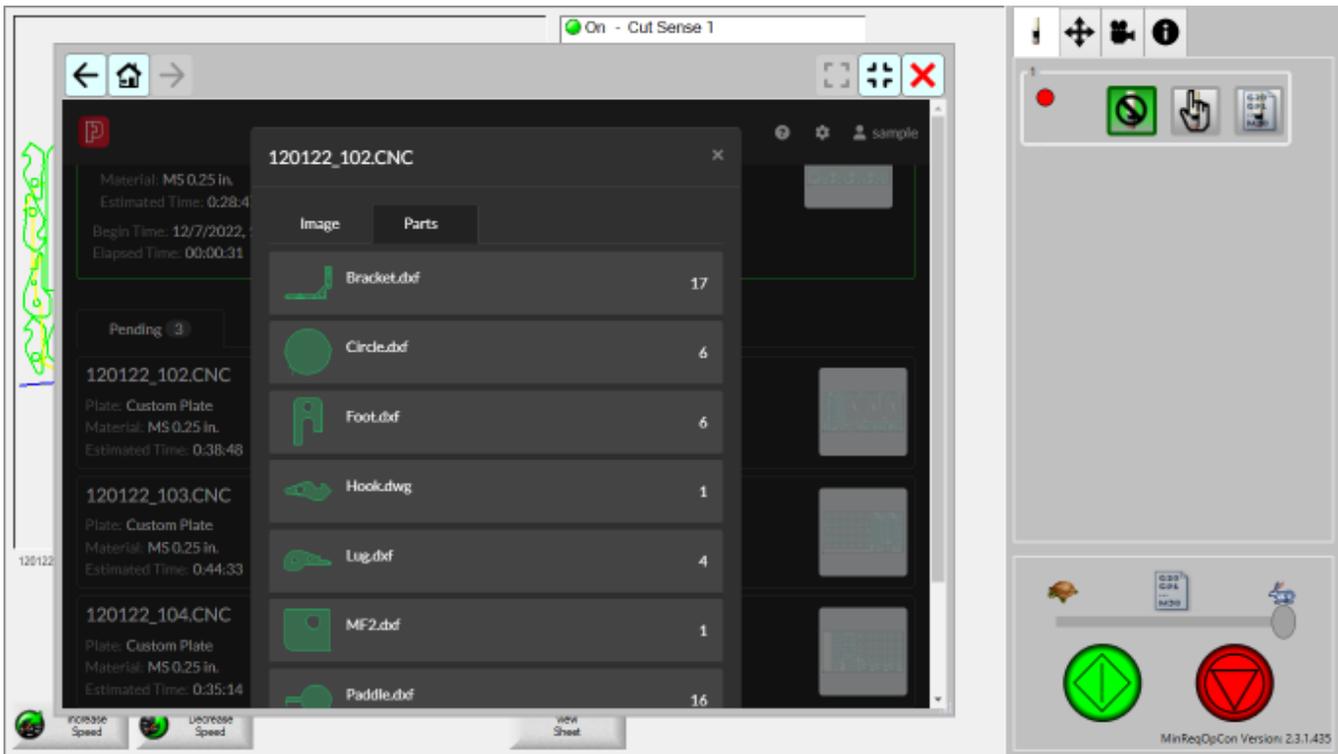
Use the Production Manager web app on the EDGE Connect CNC

A new browser pane is available in Phoenix, which displays the Production Manager web app directly on the EDGE Connect.



What's New in ProNest

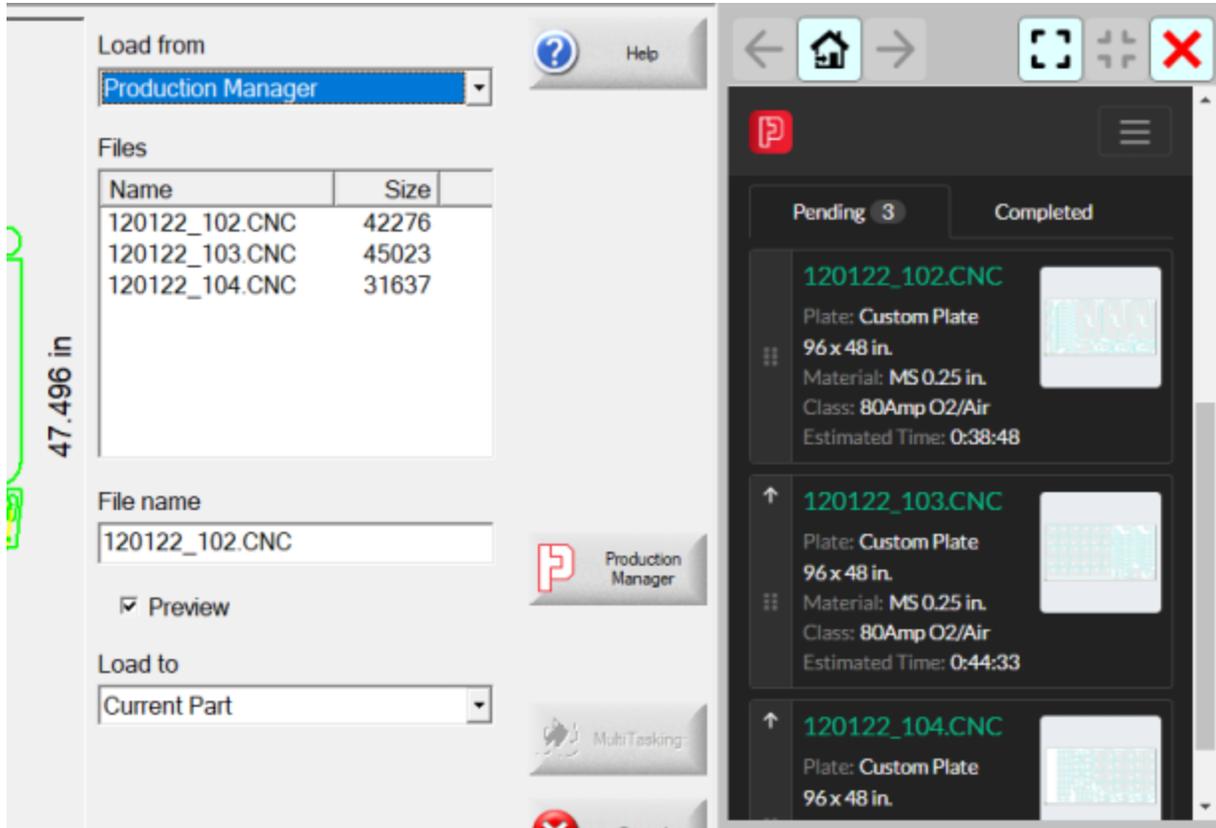
The browser is resizable for easy use and navigation.



All features available in the Production Manager web app are available directly on the CNC. This includes the machine queue, dashboard, nests and jobs pages, inventory detail pages, and so on.

Production Manager queue on the EDGE Connect

On the CNC, operators can easily view the latest scheduled queue of nests for that cutting machine, to see what to cut next.



In Phoenix, the Files > Load From screen contains a new list called Production Manager. The order of the part programs in this list automatically matches the order of the Production Manager queue. Operators can simply load part programs from the top of the list.

The queue is visible in the web app and updates in real time:

- New nests output from ProNest are added.
- Changes to the order of the queue are immediately visible.
- Frozen nests can be quickly identified.
- Nests are automatically added to the Completed tab when cutting is finished.

In addition, operators can enter parts scrapped for completed nests directly on the CNC, if needed.

Please contact us if you'd like to use this feature.

Automatic discovery of EDGE Connect CNCs

When adding new EDGE Connect machines in Production Manager, the app now automatically discovers available EDGE Connect CNCs on the network. The CNCs are automatically identified by serial number and added in Production Manager for tracking.

This lessens the need to manually enter host names or IP addresses of EDGE Connect machines when adding them to Production Manager.

BEVEL MACHINE INTERFACE

Smoothing improvements for gradual bevel

Geometry smoothing for gradual bevels has been enhanced, offering more fluid machine motion when cutting gradual bevel contours, particularly when using a Hypertherm CNC.

ProNest 2023 v15.0.2

Released November 2022

CAD IMPORT

OMAX file support for XData

XData that is present in an OMAX file (.omx) during part import is retained in ProNest and included in output. OMAX parts with XData have restricted functionality in ProNest (for example, leads may not be modified or moved in some scenarios), and they can't be opened in Advanced Edit or your default CAD editor.

Enhanced Quality support for OMX and ORD files

- Quality colors match default quality colors in OMAX IntelliMAX software.
- Descriptions for standard OMAX quality numbers are included in the Color Legend.
- Leads, etch, and scribe profiles are assigned appropriate quality values at output, regardless of their quality assignments in ProNest.

Please contact us if you'd like to use this feature.

ProNest 2023 v15.0.1

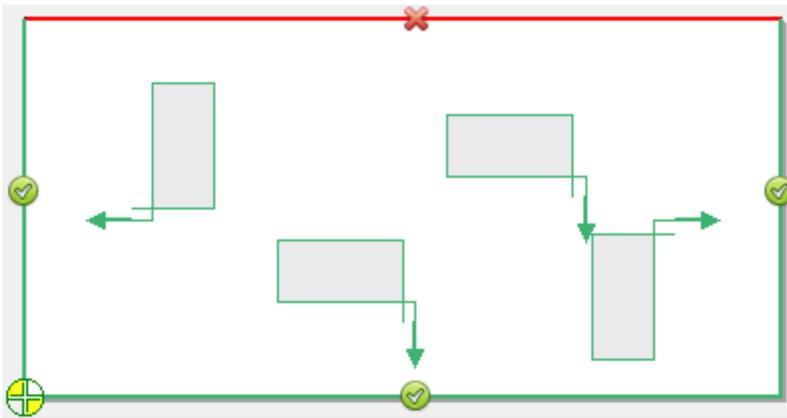
Released July 2022

SURECUT TECHNOLOGY

PlateSaver settings

A settings page for PlateSaver™ is available with an option that allows you to select plate edges that PlateSaver projected splash zones should avoid, when possible. Avoiding plate edges may help reduce pierce puddle blowback in unwanted directions. Up to three plate edges may be selected.

XPR and EDGE® Connect CNC running Phoenix version 10.18.1 or later are required to use PlateSaver.

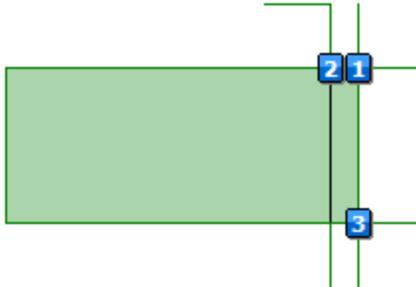


Example configuration of the "Avoid plate edges" setting, where the top edge is selected to be avoided.

BEVEL

Split multi-pass bevel profiles

For bevel types that require multiple passes (Y, X, and K), a new "Split multi-pass bevels" setting is available to automatically split passes into separate profiles when Make Pass Profiles is selected.



Y Top bevel with split profiles

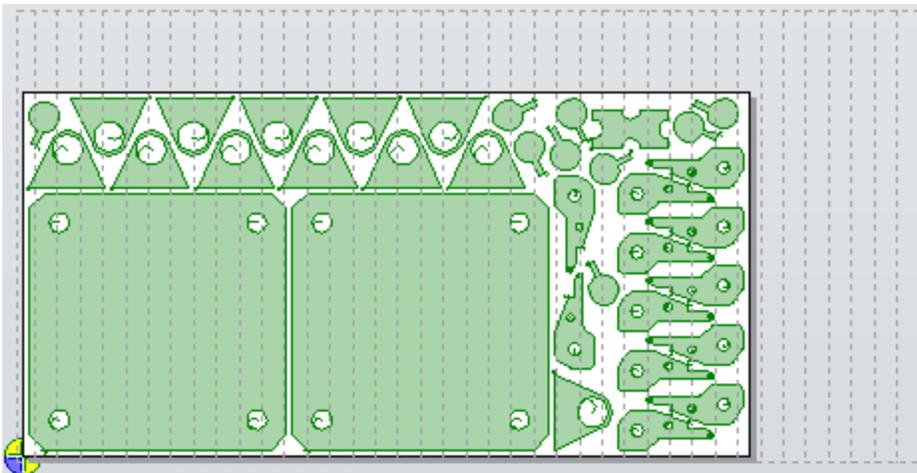
Typically, splitting multi-pass bevels results in more pierces, fewer transition loops, and greater control over pass sequencing, ensuring that the part will not drop before all profiles are cut. This method is also used to avoid crossing previously-cut paths and to improve cut quality in some applications.

USER INTERFACE

Visualize slats on the nest

You can model slats from your real-world cutting table on the nest and in cut simulation in ProNest with a DXF or DWG file. A new Slats settings page is available, allowing you to specify the CAD file to represent slats, as well as an option to select file units.

You can adjust the color of slats drawn on the nest in the Color Legend. Additionally, slats can be included in nest-level report images. Slats are display-only artifacts on the nest and do not impact nesting.



A 96 x 48 in. nest with 120 x 60 in. vertical slats

AUTOMATION

OneClick enhancements

While OneClick is running, you can pause OneClick to interact with many other features in ProNest before resuming OneClick. This enhancement is particularly useful if you need to make any adjustments to your nest or parts before creating output and reports. For example, you can pause OneClick to adjust leads, and then resume OneClick to finish running through the remaining actions.

JOBS

Search for jobs using quote number

In ProNest (File > Recents) and the Production Manager web app, quote number is now an available search keyword for jobs. Search results include jobs saved in version 15.0.1 and later.

3D CAD

Inventor part naming using part number

When importing Autodesk® Inventor® parts into ProNest, you can use the Inventor Part Number as the ProNest part name.

ERP/MRP INTEGRATION

Pass STRUMIS part data into ProNest

When importing items from STRUMIS into the ProNest part list, you can pass additional STRUMIS data to ProNest part properties. Map STRUMIS item information such as MarkName and PhaseID to the part properties Misc 1, Misc 2, Misc 3, Remarks, or Reference. Once in ProNest, the data can be included in reports, data export, and so on.

This improvement is backward compatible with ProNest 2021.

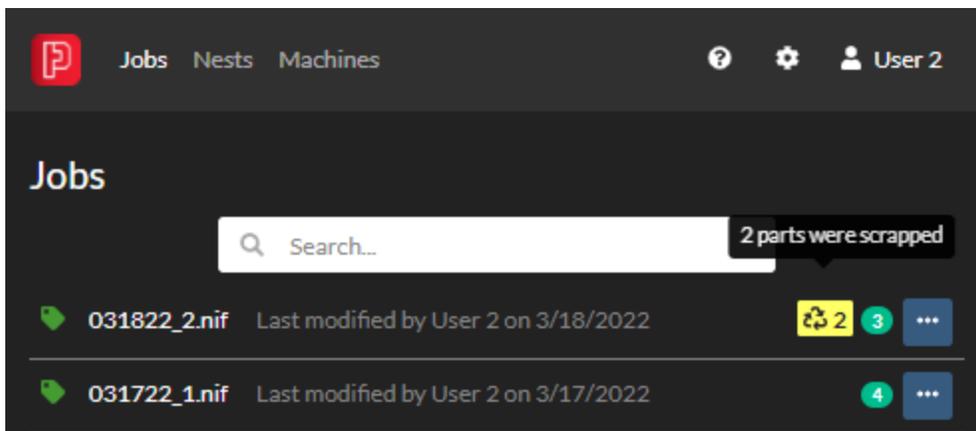
ProNest 2023 v15.0.0

Released May 2022

PRODUCTION MANAGER

Keep track of scrapped parts

In Production Manager, you can log the parts on a nest that were cut poorly and discarded. After a nest is physically cut, a quantity scrapped for each part can be entered for that nest cut. This ensures that real world cutting results for parts are visible in ProNest and Production Manager.



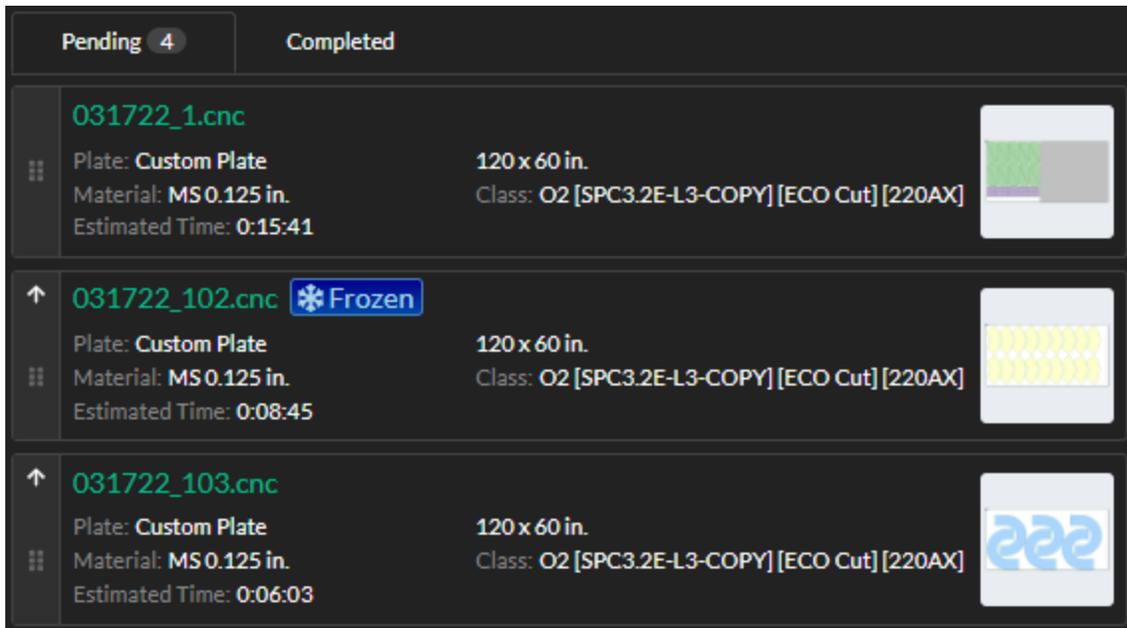
- Operators can enter a quantity scrapped for parts on a completed nest.
- Production Managers can view and edit quantity scrapped for parts in the web app.
- Work order quantity will be updated in ProNest and the web app to account for quantity scrapped. This means that those lost parts will be available again for nesting in ProNest.
- For any work order or non-work order parts, you can use this info to account for scrapped parts in invoicing or billing.

Freeze nests

Users with a Production Manager role can freeze any queued nest to prevent it from being processed. This might be useful if an order is suspended or cancelled, and you need to make sure any associated nests are not available for cutting in Production Manager.

You might also freeze a nest if there is a problem with the NC part program for the nest and adjustments need to be made in ProNest. Simply freeze the nest until a nest programmer can edit it.

A frozen nest is indicated clearly throughout the web app to all users.



Operators can see that the nest should not be cut and will not be able to run it on a Production Manager machine.

Any nest can be quickly unfrozen as needed.

USER INTERFACE

Welcome screen

When starting up ProNest 2023, you are greeted with a new welcome screen that highlights training videos, tips, and other resources. An internet connection is required to watch training videos.

Customize the ribbon

The ribbon area in ProNest—Home, Nest, Data, and View tabs—can be customized by adding, removing, and rearranging non-default buttons. In addition to the four standard tabs, custom tabs may be added. You can save different ribbon configurations and easily switch between them as needed, to best fit your workflow.

What's New in ProNest

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