Pack & Go
User Guide
Includes advice on using DSTV/NC Files
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PACK & GO INSTALLATION

The ParkerSteel® ‘Pack & Go’ add-on is a download available from http://www.graitec.co.uk and is free for all registered and maintained Autodesk® Advance Steel users running Advance Steel 2015.1.

Download the Pack & Go add-on file - ParkerSteelSetup_x64.msi – this is an executable file. To install the add-on, double click the file or select the file, right click and select ‘Install’ from the menu. The install dialogue will start:

Figure 1 - Select ‘Next’

Figure 2 - Accept the agreement by ticking the box and confirm by selecting ‘Next’.

Figure 3 - Click on ‘Install’ to start the installation

Figure 4 - On completion, click ‘Finish’ to exit the installation
Setting up ParkerSteel® Pack & Go

Once the installation has completed start Advance Steel in the normal way – A new ribbon called ‘ParkerSteel’ has been added to the ribbon menu and includes three icons:

*Figure 5* - A new ribbon 'ParkerSteel' has been added to the ribbon menu

*Figure 6* - Parkers Client Info

*Figure 7* – Project Information

*Figure 8* – User guide for Pack & Go

*Figure 9* – Pack & Go

**Parkers Client Info** - The ‘Parkers Client Info’ contains information relating to your existing ParkerSteel® account:

*Figure 10* – ‘Parker Client Info’ dialogue box. Contains your existing ParkerSteel® account information

It is only necessary to complete the ‘Parkers Client Info’ once. The information is stored in ‘Pack & Go’ for use in all models. The information is stored in the file path - C:\ProgramData\Autodesk\Advance Steel 2015.1\ParkerSteel.
**Project Information** - The ‘Project Information’ contained within ‘Pack & Go’ does not automatically populate the ‘Project data’ added to your model using the Advance Steel ‘Project settings’ icon in the usual way. The information contained in the ‘Project settings’ within your Advance Steel model, however, is automatically added to the ‘Pack & Go’ ‘Project Information’.

![Figure 11](image1) – The Advance Steel ‘Project data’ added to your model using the Advance Steel ‘Project settings’ icon.

![Figure 12](image2) – ‘Project settings’ icon.

![Figure 13](image3) – The ‘Parkers Project Information’ window – partially populated from the Advance Steel ‘Project data’.

The information contained in ‘Parkers Project Information’ is project specific.

**NOTE:** When entering data in either the ‘Parkers Client Info’ or the ‘Parkers Project Information’ windows, all fields highlighted in **bold** text must be completed. The ‘OK’ button will remain greyed out until all **bold** fields have been populated.

Click ‘OK’ when complete and save your model. You are now ready to use the ParkerSteel® Pack & Go utility.
PACK & GO USER INSTRUCTIONS

The icons and commands for Pack & Go can be found on their own ribbon tab called ParkerSteel.

Client Information

The first task is to complete your ParkerSteel client information. This is a one off task per installation. This client information tells ParkerSteel who the enquiries are coming from, who to send quotes back to and who to bill.

Click on the ParkerSteel Client Info icon.

Complete the details in the dialog box. All fields with a bold name are required fields.

- The first group “ParkerSteel Client Info / Billing Information” should be completed with details of the main account holder and the person who deals with any invoices from ParkerSteel. This information will be used to identify the correct ParkerSteel account and for any eventual billing and payments.

- User details should be completed with details of the person using Autodesk Advance Steel. This person will receive the quote and be responsible for checking technical accuracy.

- Default Delivery Address will typically be the name and address of your workshop goods in. All steel will be delivered to this address unless otherwise instructed. If your project is being delivered to another address (such as direct to site) then you get the opportunity to complete this information in the Project Settings box.

Once complete, click OK.

No enquiries will be possible without completing this information.
Project Information

In order to successfully quote and deliver steel for a structure more information is required than is in the standard Autodesk Advance Steel Project Settings dialog. This extra information must be completed for each project in the Project Information dialog.

Click the Project Information icon and the ParkerSteel Project Information dialog will be displayed. Three fields – Client’s Name, Project Title and Project Number are shared with the standard Autodesk Advance Steel Project Settings dialog and must be completed in there.

In the ParkerSteel Project Information dialog, all fields with the name in Bold are required fields. If any of these are empty, it will not be possible to place an enquiry.

Complete the dialog as required.

- **Contract Title** and **Phase Title** are free text. These titles will appear on relevant ParkerSteel documents to help you identify each enquiry. You may enter whatever text you wish in these fields.

- The ParkerSteel **Enquiry number** should only be completed if you are sending an amendment to a previous enquiry. Even then this is optional. If completed, any enquiries sent will be treated as overwriting the previous enquiry of the same number, and therefore everything to be included in that delivery must be included in the enquiry not just the changes. If no number is completed, then a new enquiry is raised and you can simply accept whichever quotes you wish.

- **Machining Level** – it is your choice what level of machining you wish ParkerSteel to carry out. The files sent will be the same, showing the fully finished parts, this setting is an instruction to ParkerSteel staff only.

- **Finish** – Regardless of the individual finishes specified on your parts in the model, ParkerSteel’s machine tools can provide one of four finishes only. You must select one of these to be applied to all beams in your enquiry.

- **Comments** – Type in here any further comments you wish ParkerSteel to take into account for the enquiry and manufacture of the parts.

- **Delivery details** – If you require the goods to be delivered to your default delivery address, simply tick the box, otherwise complete the details of who and where you want the goods delivered to.
Once complete, click the OK button.

**Pack & Go**

When you are ready to send an actual enquiry to ParkerSteel, this can now be done in a few clicks. If you wish to enquire for all parts in your structure model simply click Pack & Go. If you wish to enquire for only certain parts of your structure then select those parts using any method and then click Pack & Go. The Pack & Go process will only include whatever parts were selected when the command was called.

After clicking the Pack & Go icon, you will be presented with a Licence Agreement:

This reminds the user that Pack & Go is provided to streamline the enquiry process for convenience only, and in no way releases the user from full responsibility for the accuracy of any data and manufactured parts. Please read and click the I Agree button to proceed. If you click I Do Not Agree, the process will terminate without sending an enquiry.
It is possible to check the box “Do not show this dialog next time”. Do not do this if other users share your PC. Once turned off, this notice will not be shown again and it is considered that you agree with the statements for all future enquiries.

- **Selected parts:**
  
  If you selected part of the structure before running the **Pack & Go** command, you will be shown the next message:

  ![Pack & Go selected components message](image)

  If you want more guidance on controlling part numbering in different lots / phases consult your Graitec support team. Please read and understand the message, then click **Yes** to proceed. (If you click **No**, the operation will, of course, stop here).

- **All Parts:**
  
  If you did not select any parts prior to running **Pack & Go**, then ALL parts in your structure will be processed. You will be shown the following message:

  ![Pack & Go all parts message](image)

  If this is correct, then please click **Yes** to process. (Of course, clicking **No** will stop the Pack & Go process now).

Now the Pack & Go process will proceed to create all required documents and send an enquiry to ParkerSteel. A Progress bar at the bottom of the screen indicates the progress through the various tasks required.

Many files are created and transmitted over the internet to ParkerSteel, therefore the time required for the Pack & Go process to complete will depend on many factors, such as the number of parts in the enquiry and the quality and speed of your internet connection.
Do not attempt to use Autodesk Advance Steel until the process is complete. Once the process is complete, you will be shown a message such as the following. This message confirms the transmission of the stated package, but it is not possible to verify or guarantee receipt by ParkerSteel. Hence the advice within the message:

![Message Image]

You may send as many enquiries as you wish from one model. Each package sent gets a unique name.

**Note:** In order to facilitate accurate processing by ParkerSteel's computer systems, the NC files will be named with both the parts Assembly number and Part number, e.g. C1-M1006.nc. Drawings and other documents will only refer to one or other number as normal.

**NC Warning**

During the creation of NC files, Autodesk Advance Steel performs various checks on the parts. If a part fails one of these checks, you will be shown a message such as the following.

![NC Warning Image]

The enquiry will continue to be sent, but the stated part (C2 in this case) **will not** be manufactured. It is recommended that the user notes the warning and adjusts the model accordingly. The enquiry can then be resent.

If you wish, you could wait for the quote from ParkerSteel first and then add the enquiry number into the Project Information dialog box before resending the enquiry via Pack & Go. This will tell ParkerSteel that this is an adjustment to the previous enquiry, rather than a whole new one. This facility is intended to help the user and ParkerSteel keep track of many enquiries, but is not essential at any time. No previous enquiry is manufactured until you give ParkerSteel the go ahead, so whether you have a change to an existing enquiry or make a new one makes little difference.
**Project Explorer**

In order to make it easy for the user to see what parts of a structure have been sent for enquiry, every Pack & Go process makes a new group in the **Project Explorer > Groups > Parkers Enquiries** folder.

The group name will be the time and date that the enquiry was sent. (6 October 2014 @ 11:42 in the image). You can rename these groups to whatever you wish. Using the light bulb, you can isolate the parts included in that enquiry. All other group functionality is also available.

**ParkerSteel**

Once your package is successfully received at ParkerSteel, their computer systems will automatically start producing a quote for you. ParkerSteel staff will review the requirements and contact you with any questions. A quote will be returned to you within 24 hours via email (to the User Email in the Parker Client Information dialog).

This quote will have a PDF attached, showing how ParkerSteel have interpreted the information sent and what their machine tools can actually make. If you accept the quote, you will receive parts that match the PDF and there may be difference to your model. Please refer to the leaflet “Things to consider when using NC files” for more information. It is the user’s responsibility to check they are happy with the contents of the PDF.

If you wish to proceed with the order, then click the button at the top of the email saying "Place Order". The data you previously sent via Pack & Go will be retrieved and the parts made and delivered using ParkerSteel’s state of the art facilities.
The Pack & Go Workflow:
GOOD PRACTICE WHEN USING NC FILES

DStV Files

NC files as generated by Autodesk Advance Steel follow the DStV standard recognised globally. This standard does not describe everything that is possible to model in Autodesk Advance Steel. The following limitations of the DStV Standard should be remembered when having parts made from NC files.

- **BLIND HOLES or BLIND CUTS** – There is no definition to describe a blind hole or cut in an NC file. The features will be described as through holes or cuts.

- **FOLDING PLATES** – There is no definition to describe folding in NC files. You will be provided with the flat pattern.

- **BENDING BEAMS** – There is no option to describe the bending of beams in NC files. You will be supplied with a straight beam of the correct section cut to the correct developed length only (no other machining).

There are also various options and interpretations permitted within the DStV standard. Different users may want different things. Different manufacturers may require different settings to be able to process the NC file on their particular equipment.

- **TUBES** – Tubular parts can be described either as a tubular section or as a flat plate to be rolled into a tube.

- Certain fields within the NC file can be set to show different properties (such as Assembly number, Phase number or Single Part Number).

- Default corner treatment for notches and cuts (e.g. 10mm fillet or square corner).

- Some fields are ignored by certain machinery (e.g. a saw will ignore holes).

- Some Machine tools do not follow the standard strictly which results in the files having to be adjusted to suit.

When using Pack & Go from Autodesk Advance Steel, certain options are preset by default to suit the ParkerSteel facility and cannot be overridden by the user. Other options remain the user’s choice.
Manufacturing Technology

While the NC file may be able to describe many conditions, there is not necessarily the suitable manufacturing technology available to make it. The following conditions are beyond the capabilities of an automate process or of readily available machinery. This may result in incorrect finish or the product requiring additional manual handling.

- **Countersunk holes in plates** – All countersunk holes are cut top down in the top side of a plate or beam. If you need holes countersunk on the bottom face they may be made incorrectly or require additional manual processing.

- **Holes and Cuts** must be perpendicular to the web or flange or top face of a plate. – If you have holes or cuts at any other angles they will be ignored completely even though they are defined in the NC file.

- **Holes drilled from inside** faces are ignored – If you attempt to define a hole drilled (or countersunk) on an inside face of a beam it will be ignored.

ParkerSteel facilities

ParkerSteel have the most advanced, state of the art, manufacturing facilities in Europe. There are, however, some limitations even for them as to what they can currently produce. Additionally certain assumptions or decisions are made by ParkerSteel that you should be aware of.

- **Weld Preps** – No weld preps will be produced.

- **Contour Features** – All Contour Features in plates will have perpendicular edges – If you have defined a contour feature on a UCS and it has edges that are not perpendicular to the plate you will have a cut made in the plate of the smallest dimensions and with square edges.

- **Countersunk Holes** – All countersinks will be 90°.

- **Scribing** – No scribing will be produced on plates even if called up in the NC file.

- **Skewed notches** – If you define a notch that is rotated in the plane of the beam web then the results may be incorrect.

- **Finish** – All items in a single enquiry will have the same finish defined – The Pack & Go Project Information dialog offers 6 choices for this but the selected option applies to all parts in the same enquiry.

- ***** Part marks** – Part numbers on beams will be HARD STAMPED and on plates will be LASER ETCHED.

- ***** Cutting Method** – ParkerSteel will select the most cost effective manufacturing method that produces the correct shape. This particularly applies to Angles and Plates where several cutting methods are available. If you need a certain quality of cut edge or other preference you must inform ParkerSteel.

- ***** Non-standard holes** – Any holes of unusual sizes, where no standard drill or tool is available, will be rounded up to the next larger standard size.

- ***** Slots** – It is assumed that all slots will be plunge drilled with a standard size tool.

- ***** Threaded holes** – All threaded holes will be Metric UNC Coarse.

Items marked *** may have other options available if you discuss your requirements with ParkerSteel. You can indicate your wishes in the comments box in the Pack & Go Project Information dialog. Alternatively you can discuss your needs with the ParkerSteel sales team.

As ParkerSteel continue to invest in state of the art facilities the above items may be subject to change and restrictions lifted.

Supplier Liaison

In all cases please check with your supplier to ensure that they can offer what you need and will interpret the NC files you send as desired.

In the case of ParkerSteel you will receive a set of drawings of the components with your quote. These drawings are produced directly from the NC files and will reflect what will actually manufactured from their systems and equipment. These drawings should be checked to confirm that everything is as expected.

Example Drawings

The drawings on the following pages show some examples. Features with no special notes will be made correctly, but features with special notes will have issues.
Notches like this may cause a problem.

1 No. UB305x165x40 - Mkd M1028

General Notes:
1. All holes 220 U.L.O.
2. Tile drilling machine is needed.
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