# Purpose

This Standard Operating Procedure (SOP) details the steps to follow in NAXT system to review the Planned Orders output from MRP (Master Planning), these will become Purchase or Transfer orders. The schedule (Batch Jobs) have run the previous evening by Service Desk.

Stock replenishment is about when to stock certain items/parts, and if they are stocked how much inventory should be kept to meet our customer’s requirements, but at the same time, do not over stock our warehouses.

Sales requirements are for when there are firm sales orders for certain items (CAT/Hyster), and we wish to be able to combine orders to order via emergency airfreight.

NAXT Master Planning is the process that is only the start point of our Gough Group replenishment decision, we still need to be effective in the management of our outstanding purchase/transfer orders and production orders, counting journals, and in our management of our customer orders.

# Prerequisite

Run Master planning via batch job. These jobs are all scheduled by ITSD out of business hours.

# Terminology

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| **MRP** | Material Requirements Planning |
| **SOS** | Source of supply |
| **Call** | A Call is equivalent to a sales order hit, ie: this is a count on the numbero of times we have been asked for a item, via a sales order line, production order line, or service order line. |
| **Demand** | Demand is the Quantity per Call. |
| **ABC** | A items generate 80% of our calls, B items 15%, and C items 5%. |

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# Use of icons

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|  | **Business rule** |  | **Key point / Tips** |  | **Information** |

1. Find planned orders

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| 1. Navigate and open   **GGNZ > Master Planning > Common > Planned orders** |
| 1. Select the appropriate planned order to review from the Plan drop-down box.     **Gough NZTS (TWL and Transpecs)**   * + ‘NZTSBT’ Stock Transfer orders start with this then the relative warehouse no, eg: NZTSBT10C.   + ‘NZTSDI’ Stock Miscellaneous direct purchase orders, vendor to branch, (SOS 400) start with this then the relative warehouse, followed by an S. e.g.: NZTSDI10CS   + ‘NZTSHE’, Stock Hella Direct Purchase orders, Hella to branch, (SOS 475) start with this then the relative warehouse, followed by an S. e.g.: NZTSHE10CS   + ‘NZTSBG’ Stock Product Managers plans for our DC’s start with then the Product Managers code, followed by an S, e.g.: NZTSBG03S.   + **Gough Palfinger** uses ‘GGMNZPALS’ for stock orders.   + **Gough Materials Handling** uses ‘GGMGMHS’ for stock orders, and ‘GGMCAT’ for sales orders.   + **Gough CAT** uses ‘GGMCATS’ for stock orders, and ‘GGMCAT’ for sales orders |
| 1. What type of order are you completing    1. Sales order requirements, see Task 2 Firm planned orders (Sales)    2. Stock order requirements, see Task 8 Firm planned orders (Stock) |

1. Firm planned orders (Sales)

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| 1. Select GGMCAT Plan from Task 1.   All sales orders requirements are in this plan. |
| 1. Select all lines for your business unit to confirm    1. Apply the following MRP consolidation code       1. GMH: GMHBO       2. CAT: 000CATAKW, 000CATCHW, etc   Use the filter to ensure only your own business units orders are firmed.   * 1. Select all lines |
| 1. Select **Firm** |
| 1. Check **Setup** tab > **Update marking** is set to Standard   This keeps the marking to the Sales order |
| 1. Select **OK** |
| 1. For CAT interface orders, refer to SOP **MRP\_1.4\_Gough CAT purchase orders**   For GMH Hyster orders, see Task 9 Action firmed orders |

1. Set up planned order view

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| Personalise the Planned orders form for efficiency purposes.  Our recommendation is to Retrieve from user which is the NZTS recommended form view. This form is used for all business units including CAT Parts, some of their column headers are not used by other businesses. | |
| As an alternative, the planned orders can be exported and analysed in Excel. Macros can be used to amend a view and import current data, and conditional formatting can be used to highlight items that need quantity reviews or stocking decisions. | |
| MRP Consolidation code as used by GMH/CAT in Task 2 is not in this setup, if you are a user who performs Task 2 to Task 8, this field will need to be added in again via the Personalisation screen found in this Task, then dragged and dropped to where the user wants it. | |
| If your personal usage data is reset by ITSD for technical reasons, the personalisation will be lost and this task will need to be repeated. | |
| 1. In the **Planned orders** view, right-click on a field header and left-click on Personalise |
| 1. Select **Retrieve from user** |
| 1. Double click **bevanb**   This has set up recommended from defaults | |
| 1. Select the appropriate setup    1. NZTS-Planned Purchase for stock purchase orders    2. NZTS-Planned Transfer for stock transfer orders | |
| 1. Close **Planned Orders** | |
| When you go back to a menu the system resets to the form view you had just selected | |
| 1. Re-Open Planned orders   The correct settings will have been applied | |
| Definition of fields displayed in the Planned Order form.  Displayed in the order of the NZTS-Planned Transfer   * **Dangerous Goods** Is the item a dangerous good, Y or N = Yes or No. For When firming transfer orders these are filtered out separately, so the Sending warehouse can segregate DG’s from regular items * **Stocked** Is the item recommended to be Stocked in your warehouse Yes or No. (Note: Frozen Min/Max’s are set as No, so you do need to look at these items). * **Plan** Is your plan number * **Reference** Is the planned order type, note Master planning generates requirements, for planned transfer, planned purchase order, or planned production orders * **Item** **number** The part no. * **Product name** The item name * **From warehouse** In the case of transfers this is the warehouse you are transferring from, usually a Distribution warehouse, eg:10D, 15D, 60D   ! You cannot filter on this field in the ‘Edit in Grid’ form, only in the Planned Order form   * **To warehouse** This is the warehouse the goods are going to * **From warehouse available physical** This is the inventory physically available in the ‘From’ warehouse * **Last 6-month average demand** This is the last 6-month average monthly demand for this item in your warehouse * **To warehouse available physical** This is the inventory physically available in your warehouse * **To warehouse ordered** This is the inventory ‘ordered’ or under transfer into your warehouse, note can be a quantity under return for credit as well * **Req. Quantity** This is the quantity you are reviewing to transfer or order * **Package qty** This is the purchase package quantity * **Site Activity Calls 6 Months** This is a transfer pack quantity. (NZTS have appropriated the Activity indicator 6M field on the Released Product – Parts tab for this purpose so it is a visual cue only) * **Calc. minimum** This is the MRP minimum calculated stock level * **Calc. maximum** This is the MRP maximum calculated stock level * **Extended Dealer Net** Is the extended purchase price in currency used by the vendor, or NZD for transfers or local purchase orders, multiplied by Req. quantity * **Unit**  Purchase unit of measure * **SOS** Source of supply * **Part indicator** Used to flag groups of products in NAXT so NZTS can filter/ manage differently, e.g.: core range * **Product Manager** Initials, who’s responsible for managing this item. * **ABC-code calls** This is our ABC inventory classification, this is calculated on Paretos principles, and A item = top 80% of calls, a B item = the next 15% of calls, a C item is the last 5% of calls, a call is the count on how many times the item is entered into a sales order (incl. service calls) * **Buyer Group** Buyer group. Currently these are the same as Product Manager’s, however we do have flexibility in allocating these to other employees to order * **Lead time** Shown in actual Days, from the Vendor * **Dealer Activity** Fast, Medium or Slow. Fast = ‘A’ inventory, Medium = ‘B’ inventory, Slow = ‘C’ inventory. (For SOS 000 world this is dictated by CAT USA, for other SOS’s it is calculated by the ABC inventory classification) * **Currency** Currency as set on the Released Product * **Suggest order** If the number of calls for a ‘Stocked’ item drops below the limit, the planned order for the item is created with the tickbox ticked on the planned orders form; this indicates for the planner that the call number dropped, they can decide whether to order or not | |

1. Set up edit in grid form view

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| When needing to amend many lines in a Planned order, it is recommended to use the Edit in grid view for ease of use. First, this screen also must be personalised for efficiency purposes. |
| 1. C:\Users\graemeo\AppData\Local\Temp\SNAGHTML17ba1744.PNGTo change a recommended quantity in a planned order, select **Edit in grid** |
| 1. Repeat Task 3to personalise the edit in grid form view   The configurations window will have an **Edit in Grid** suffix |
| 1. Once completed, re-open **Edit in Grid**   The correct settings will display |

1. Review required quantity

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| Review the required (Req) quantities in a planned order to decide if the same quantities need to be kept, increased, decreased or deleted. |
| 1. View warehouse history:    1. Select first line.    2. Select **View**    3. Select **Warehouse items** |
| The warehouse items tab is where you can view up to 25 months (current + 24) on an items call and demand. |
| 1. Use the Min / Max levels to make the (Req Quantity) replenishment decision | |
| Useful fields on the warehouse item form:   * 1. **Warehouse** Location details 11C = TWL Whangarei   2. **Method Id** From Item Categorisation   3. **Dealer net/Calls** Extended Dealer Net per call   4. **Stocked indicator** From Lifecycle   5. **Cell Id** From Item Categorisation   6. **Lead time** From the Vendor. For territorial sub-warehouses this will come from the Item Categorisation lead time   7. **Calc. min** Min. calculation   8. **Calc. max** Max. calculation   9. **Territorial order code** Warehouse order in territorial hierarchy (not used by Transport)   10. **Last six months average demand**   11. **Frozen inventory type**   12. **Worker** Name of the person who sets the level   13. **Frozen to** A date the level is frozen to   14. **Reason to freeze** A free text field you can type a reason to freeze   15. **Frozen minimum / maximum**   16. **Territorial Call/Demand** Presents the rolled-up demand if the box is ticked. Used for Distribution warehouses   17. **Qualified to stock date** Date the item was considered stocked   18. **Qualified to planned order** Last time the item was on a planned order   19. **Activity since Last MP** Shows if the item has had call/demand or other transactions since the last time it was on a planned order |
| For more info on K to O and to set Frozen Min/Max levels see Task 12 Setting frozen min/max levels |
| 1. Select **Close**   Repeat for each line that you wish to review |
| 1. In the **Edit in Grid** form adjust the **Req quantity** as to your logic, within your business guidelines.   For NZTS the business rules are based on ABC-code calls:   * + **A & B** inventory Lines – Directly supplied from Hella or Miscellaneous NZ vendors: MAX = 1 x Last six months average demand - stock on hand – stock on order.   + **A & B** inventory Lines – ex Distribution warehouses MAX = 1.5 x Last six months average demand - stock on hand – stock on order.   + **C** inventory lines **=** Only order for committed customer requirements, keep to a bare minimum if stocked in your branch. | | |
| Filter on any of the lines within the Planned orders view. It is good practice to double check your Req. quantities on the high value items. To do this double click on the Extended Dealer Net column in your edit in form view. This is the extended purchase price in currency used by the vendor, or NZD for transfers or local purchase orders.  Another good practice is to check items with low demand, i.e.: sort the column ‘ascending’ in field =**Last six months average demand.** | | |
| 1. Once you have finished your review, advise Purchasing Staff via e-mail so they can firm the plan. | | |

1. Delete a planned order line

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| 1. Highlight the respective lines   Select **Delete**  Select **Yes** to **Confirm deletion** window |

1. Add items manually (Purchasing staff only)

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| Please note for Transports warehouse branch manager/supervisor reviews of Planned Orders, do not manually add any new lines, please advise Purchasing Staff for these items/quantities. This is to avoid overstocking and incorrect/duplicate data. |
| 1. In the **Planned order view**, select the following:    1. Select **Planned order type**   This will be Purchase order or Transfer   * 1. Change **Plan**, if required   2. Select **Item number** |
| 1. For a Purchase order, the Released Product Vendor will appear. Change Vendor if required | |
| 1. For a Transfer order select the **From warehouse** and **To warehouse**   Select **Req. quantity**  Transfers must have the quantity physically available in the **From warehouse** | |
| 1. Select **Create**   A new line will appear at the bottom of the Planned order |

1. Firm planned orders (Stock)

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| Now the planned orders have been reviewed they can be turned into Purchase or Transfer orders |
| Firming orders over 100 lines can cause NAXT to hang |
| 1. Select the lines in the Plan that you want to firm.   If the reference lines are all ‘Planned transfer’ select all lines  Apply filters as required to separate these out, e.g.: Dangerous goods or batteries, $ value by vendor.  Select **Planned order** tab > **Firm** to convert the planned order to purchase order or transfer order |
| 1. Select **OK** |

1. Action firmed orders

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| To see a list of the Purchase/Transfer Orders created,   1. Navigate and open   **GGNZ > Master planning > Inquiries > Processes > Planned order log** |
| 1. Review what items and transfer/purchase orders have been created    1. Select a **Plan**    2. Double click on **Firming date** to sort the latest at the top |

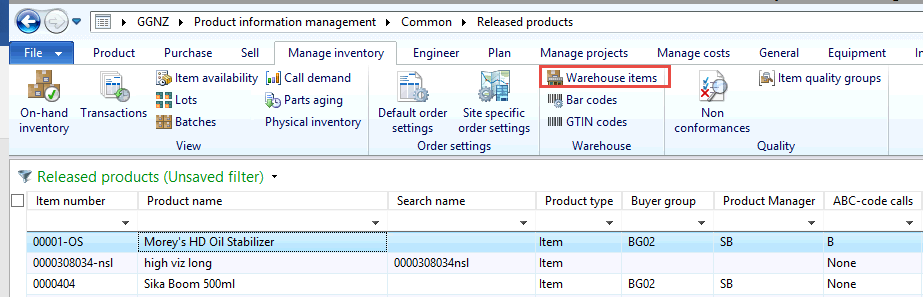
1. Action purchase orders

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| 1. Navigate and open   **GGNZ > Accounts Payable >My purchase orders** | | |
| 1. If required remove **Order class** filter   Filter for:   * 1. **Status**: Open order   2. **Approval status**: Approved | | |
| Latest orders are at the bottom   1. Sort CAT Warehouse prefixed Purchase Orders by double-clicking on the Created date and time field | | |
| 1. To confirm Purchase Orders for CAT interface orders, see **SOP MRP\_1.4 Gough CAT purchase orders** | | |
| 1. If coming from Task 2: Firm planned orders (Sales) and there are POs with multiple lines for different warehouses,    1. Open the Purchase order    2. Select **Header View**    3. Select **Warehouse**, this is the Delivery warehouse, eg: 15H, 60A, 10A   If you didn’t come from Task 2 continue with step 41 | | |
| 1. Press **F5** to refresh | | |
| Popup appears   1. Select **OK**   Do **not** tick Update Site and warehouse | | |
| Update delivery address popup appears   1. Select **Yes to all** | | |
| To confirm the PO without printing,   1. C:\Users\JESSIC~1\AppData\Local\Temp\SNAGHTML9ffb61.PNGSelect **Purchase > Confirm** | |
| To print the PO,   1. C:\Users\JESSIC~1\AppData\Local\Temp\SNAGHTMLa46615.PNGSelect **Purchase > Confirmation** | |
| The Confirm purchase order window appears   1. Tick **Print purchase order**   Select **OK**  C:\Users\JESSIC~1\AppData\Local\Temp\SNAGHTML87148.PNGPurchase order confirmation is created and confirmation prints to screen | |
| 1. To email to the vendor, save the PDF to your computer then attach it to an email    1. Hover your mouse at the bottom of the PDF and select the **Save** icon    2. Select the folder you want to save it in    3. Name it and save it    4. Open your e-mail and attach the file    5. C:\Users\JESSIC~1\AppData\Local\Temp\SNAGHTML1c83aa8.PNGSelect an email recipient and select send |

1. Action transfer orders

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| CAT Picking journals are automatically created |
| 1. Navigate to **Inventory and warehouse management > Periodic > Transfer Orders**    1. Select **Remove WWF** if needed    2. Select **Mode of delivery**    3. Select **Picking journal** to create a Picking journal for the Sending warehouse to process |

1. Setting frozen min/max levels



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| Frozen Min/Max is used to set levels according to business decisions, and not NAXT transactions.  Frozen min/max settings should be used very carefully to avoid un-necessary increases of stock levels and should be kept to as few items as possible to reduce maintenance.  Examples of where it is useful is for brand new items we want to start selling, or a customer has advised they’d like to start buying certain items on a regular basis and need the items easily available in a local warehouse. |
| 1. Navigate to the Warehouse item via Task 5, or   Via **Product information management > Common > Released products** |
| 1. Filter and find an item number and select it   Open **Manage inventory** tab and select **Warehouse items** |
| 1. From the overview tab,  * 1. Select a warehouse line   2. Select the **Parts** tab |
| 1. Select from the following:    1. **Frozen inventory type**       1. **Temporary**: Temporary frozen min/max is released automatically if either the calculated minimum reaches the frozen minimum or the frozen to date expires. (Most useful for new items).       2. **Permanent**: Permanent frozen min/max is released only if the frozen to date expires; if it is not added, only a manual release is possible.    2. **Worker** This is populated automatically when first set. This will not change when updated at a later point unless the Frozen inventory type is also re-selected.    3. **Frozen to** The date until the min/max is frozen.    4. **Reason to freeze** A free text field, where the reason of the freezing can be added.    5. **Frozen minimum** This will be considered as the minimum for the item in the warehouse.    6. **Frozen maximum** This will be considered as the maximum for the item in the warehouse. |
| When a frozen min/max is set the system will consider the item to be stocked. |
| **Frozen Min/Max History**   1. To view historical records of frozen min/max settings, navigate and open   **GGNZ > Inventory and warehouse management>Inquiries>Frozen Min/Max history** |
| 1. Filter for **Item number** and other fields as necessary. All instances will appear. The latest occurrence (by created date and time and warehouse) is the current setting. |

1. FAQ: Required Quantity Variances (Stock)

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| Items should appear on the Master Plan if **Available Stock** hits the **Calc. minimum** or below. Then it orders via Req. quantity up to the **Calc. Maximum** figure.  The simplified equation for a Req quantity for a planned order is normally:  **Req Quantity** = (**Calc. Maximum**) – (**To warehouse available physical**) – (**To warehouse ordered**)  There are a few scenarios where this calculation can be over-ridden |
| **If the Req Quantity appears to be too high = Frozen min/max:**   1. Check the Warehouse items **Frozen min/max**.   These will override the calculated values.  Replace Calc. Maximum with Frozen max. in the above calculation. |
| **Frozen min/max** cannot currently be displayed on the Planned order grid |
| **If the Req Quantity appears to be too low and is a planned transfer = Not enough stock:**   1. Check the **Available physical** field, as the **From warehouse** may not have the full quantity available to supply. |
| **If the Req Quantity appears to be too low = Another line for a different reference:**   1. Check there isn’t also another line with a Reference of planned purchase/transfer/production in addition to the current line.   If the Plan is sorted by Item there may be a corresponding line duplicating the item number. The extra quantity required will be on the other line.  Amend either/both lines as required. |
| **If the Req Quantity appears to be too high and is a planned purchase = Pkg qty:**   1. Check the **Package quantity** field.   A Req quantity will round up. e.g. 1 required with a Pkg qty of 20 will order 20. |
| **If the Req Quantity appears to be too high = Sales orders not reserved:**   1. Check the On-hand, **On order in total**   This shows sales order requirements that are not yet reserved against stock or other incoming orders |
| **If the Calc maximum appears to be too low or too high across a range of items = Item categorisation levels:**   1. Refer to **GGNZ > Master planning > Setup > Item categorisation**.   Fields such as **Method id** (Probability %) may be set too high or even too low. **Safety days** or **Lead time** can also affect this. Review these with your Purchasing Manager, and test to get this to what is determined to be appropriate levels: |
| 1. In the meantime, refer to **Tableau (Parts Inventory Dashboard)** for ordering guidance. |