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Publication Date	October 25, 2016

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Purpose:

This application provides the ability to load forecast orders into MAX from spreadsheets or select from an external source such as an <u>Avercast</u> database.

Sales order backlog and shipments can be netted against a Forecast by user defined buckets (commonly a month). This net Forecast is then loaded into MAX to drive demand through MRP for future requirements. Since only a NET forecast is loaded, duplicate demand in MAX is prevented for the specified periods. If Sales exceed the Forecast in the bucket, no forecast orders are loaded for that bucket. The previous forecast can be deleted or closed automatically in MAX when the new forecast is loaded. The cutoff date for the first bucket in the current range is determined by the user when the program is run, net forecast orders will be generated for the requested bucket periods into the future starting from the first bucket.

Requirements:

- 1) The SQL server name has to be the same name used to create the license hash.
- 2) We need to have 2 DLL's copied from MAX client folder into the application folder. The application tries to copy them if missing or old but sometimes is prevented and they will need to be manually copied:
 - a. C:\exact\rmclient\efw\ERMRemCl.dll
 - b. C:\exact\rmclient\efw\ EXACTRMEnc.dll
- 3) Make sure the MAX client runs on same PC. If MAX has an issue the application will also.
- 4) Sometimes 2 MAX DLL's need to be registered:
 - a. C:\exact\rmclient\efw\EXACTRMDEV.DLL
 - b. C:\exact\rmclient\efw\MAXUPDATEXML.DLL
- 5) The user referenced in the Data Settings needs read access to the EXACTMAX database
- 6) DotNet Framework version 4(Full) or newer

Installation:

Run InstallAdvForecast.exe and follow the prompts:

G AdvancedForecast Module Setup − □ ×	
Choose Components Choose which features of AdvancedForecast Module you want to install.	Select Crystal .Net Runtime if not installed already.
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.	
Select components to install: Crystal .Net4 Runtime AdvancedForecast Description Position your mouse over a component to see its description.	
Space required: 55. 1MB	
Nullsoft Install System v2.46	

Г

MAX Data:

VIAN Data. I Settings	- 🗆 ×	Enter the MAX server, credentials,
MAX Database		license path and MAX client path.
MAX		
MAX Server Name: TIMSLAPTOP2013	•	The user needs access to the
☑ Use Windows Authentication		
SQL Server Authentication		"EXACTMAX" database for read
User:		rights only.
Password:		
Company: Exact MAX Sample Company	•	Register:
DataBase: ExactMAXSAM		
MAX LIC Path:		Name and key provided
c:\exact\rmserver\lic		
MAX Client Folder (EFW): C:EXACT\RMCLIENT\EFW		Please Register your Module ×
	est	
		Company Name BPT
1		Key
		Register

Login: Use MAX User and Password and select company

	×
	MAX Advanced Forecast
Company: MAXSam2	•
User Name: MANAGER	
Password: *******	
	.:

External Forecast:

External Forecast data. Note: using External forecast data may require working with Balance Point to map the data.

J	Exaternal Forecast Data	_ □ >
External Forecast Name	AverCast	•
SQL Server: TIMSLAPT	OP2013	-
Vindows Login		
SQL Server Login		
User ID:		
Password:		
Database: AverStag	e	•
Table: SKUWkly	/Forecast	•
1st Forecast Bucket Fie	Id Name: SKUForecast1	•
Part Numb	er Field: SKU	•
		Test

Spreadsheet Format:

To Update Forecast in database, set cell to 'Y' or 1 (if the column is defined in Excel as numeric) or 'N'. (Y or 1 tells program to read new forecast numbers in from Excel, otherwise new forecasts are ignored)



List all <u>part numbers</u> with <u>location code</u> (all the same if only one location, per MAX data base). Forecast quantities for all months (uses a 12 month rolling forecast), or 0 or blank. <u>Bucket type</u> for each part (how monthly forecast demand is spread over month, see Bucket Type table), and whether to <u>include the current month's forecast as nettable</u> demand (Y) or accumulating demand (snowplow demand S), or not (N). Current Year and Next Year (Actual) required.

The application looks for a worksheet named 'MAXFC' and if not found will display a confirming message to use the first sheet name found:

AdvFor	recast_SQL	×
Do you want to load Sheet: HUH\$	rather than the expected M.	AXFC?
	Yes	No

Ensure CY (Cell A1) is set to Current Calendar Year, and NY (Cell A2) is set to Next Calendar Year in the Excel Forecast spreadsheet.

If a new forecast is to be read in from the Excel spreadsheet, set 'Update Forecast' cell (D) to 'Y', else set to 'N' if the currently loaded forecast is to be used. Setting cell to 'N' will cause Forecast module to skip reading Excel file and use forecast already stored in table. (This can be overridden from the main form.)

If the part's first month's forecast is to be ignored, set 'Include First Month' to 'N' for each part. This will cause the first month's forecast for that part to be ignored in the demand process. An 'S' or 'Y" in this column will cause the net forecast for the current month to be accumulated across the remaining month splits (affected by FC Cut Off Date).

If an alpha factor is to be used (adjusts monthly forecast up or down), set it > 1 to increase, < 1 to decrease (required).

The application will aggregate part sales against a forecast, allowing for the netting of sales against a product group or planning bill forecast. This is especially useful for forecasting demand by product group (more accurate than individual parts), or for configured items (actual sales can be netted against family planning bill). This requires running the batch process, "Update Aggregate Codes in Sales Orders" and requires linking parts to family or group through Part Sales UDFKey. If using Aggregation set Agg Code = group used in Part Sales UDFKey, else leave blank.

If an extension to the Bucket Description/Year is required as a reference in MAX, fill in Ref Ext, else leave blank.

If using Drill Down, set Drill Down to 'Y' (by Orders Requirements), F (by Feature Option configured order), B (by BoM), else leave blank. Setup by drill down Part Number, requires Drill Down flag in Forecast ID to be set on.

If using Customer specific Forecasting, enter Customer ID to net against, or common prefix of Customer ID for groups. Change to Stock ID's if using Stock ID netting.

If using Part Specific Sales Order Cutoff dates, enter in SO Cutoff column in date format.

*Ensure last row in Sheet 'MAXFC' has 'END' in Ax, instead of part number, directly after last part number row. Do not rename sheet.

*Do not add rows or columns to top or beginning of spreadsheet. Do not delete any columns in sheet. If adding more buckets in sheet, make sure they are added to bucket range table as well.

Setup Forecast Tables:

					Setup Bu	ucket Ranges			
dd N	lew Bucket								
Bucket	Range ID:	DEFA	JLT			•			Delete Bucket Range
Re	set Year	# B	uckets 24	Set # Buckets	Bucket Label	Bucket Rang	e Start Date		Calculate Bucket Range Dates
2	015	Bucke	s/Year 12	Set Buckets/Year		Thursday ,	January 1, 2015	-	Create New Buckets
								Forec	ast ID's Using this Bucket Range
	Bucket_Co	ode	Description	Start_Date	End_Date	AH_Code	FYear	D	Description
•	1		M-001	1/1/2015	1/31/2015		2015	BPT	BPT DEFAULT
	2		M-002	2/1/2015	2/28/2015		2015	BPT2	BY CUSTOMER 24 BUCKETS
	3		M-003	3/1/2015	3/31/2015		2015	BPT	
	4		M-004	4/1/2015	4/30/2015		2015	BTX	WEEKLY FAST MOVERS
	5		M-005	5/1/2015	5/31/2015		2015	CETA	CETA TEST
	6		M-006	6/1/2015	6/30/2015		2015	DD 24	DD TEST AT 24
	7		M-007	7/1/2015	7/31/2015		2015	NS	C-Mac
	8		M-008	8/1/2015	8/31/2015		2015		
	9		M-009	9/1/2015	9/30/2015		2015		
	10		M-010	10/1/2015	10/31/2015		2015		
	11		M-011	11/1/2015	11/30/2015		2015		
	12		M-012	12/1/2015	12/31/2015		2015		
	13		M-013	1/1/2016	1/31/2016		2016		
	14		M-014	2/1/2016	2/29/2016		2016		
	15		M-015	3/1/2016	3/31/2016		2016		
	16		M-016	4/1/2016	4/30/2016		2016		
	17		M-017	5/1/2016	5/31/2016		2016		
	18		M-018	6/1/2016	6/30/2016		2016		
	19		M-019	7/1/2016	7/31/2016		2016		
	20		M-020	8/1/2016	8/31/2016		2016		
	21		M-021	9/1/2016	9/30/2016		2016		
	22		M-022	10/1/2016	10/31/2016		2016		
	23		M-023	11/1/2016	11/30/2016		2016		
	24		M-024	12/1/2016	12/31/2016		2016		

Forecasting buckets are user defined, with a start and end date. This allows user definition of months and bucket size (recommend monthly buckets, as smaller increments are less accurate). The first month of the year is defined by setting monthly offsets in global table. User sets how many buckets are used, and how many buckets per fiscal year.

All months or weeks that exist in the Forecast spreadsheet, with start and end dates, bucket codes (1- #periods), description, fiscal year. Set A/H Code to "True" for past months. Bucket Range 1 = First Month in Fiscal Year = First Quantity Column (column3) in Excel template. #Periods must = buckets on excel sheet. Other dates in bucket range can be auto calculated from start and end dates, and then manually adjusted to exact dates. Set # buckets to number in table (must match # in Excel), set # buckets per fiscal year.

Monthly: A/H Code is Checked for past bucket.

Reset Year: enter the current year and hit "Reset Year" button to automatically adjust the years in the bucket date fields.

Do next year first, then current year. Change Year to new current and next. Set AH to False. Run "Recalculate Bucket Range Dates" to calculate new dates.

Forecast ID: Add Forecast ID -				_ 🗆 🗙		2. 3.	Description Bucket Range for this ID			
Fores	Offset Startin Lead Time Of elete Forecast Delete For ose Prior Fore	ction Method Net Sales Net Sales Net Supply ginventory fset Enabled Orders cast Orders cast Orders Pess:	Bucket Types	May 17, 2015 Update Delete II		6. 7. 8. 9. 10. 11. 12.	Sales Data Collection Method: a. By Part (default) b. Aggregate c. Drill Down i. F=Feature/Option ii. Y= Shop Order iii. B=Multi-Level BOM d. Net Level i. Top ii. Component Net Sales - determines whether sales backlog is netted against forecast. Close forecast orders which are due prior to selected cut-off date. Net Shipments – Nets shipments against forecast Net Supply – (Repetitive) Offset Starting Inventory - net starting inventory. Lead Time Offset - offset the due/ship dates from the parent Sales Order for drill down forecasted items using the parent parts critical path value in Part Sales. Delete Forecast – delete existing forecast a. Delete by Part based on input Replenishment Enabled – allow for replenishment when below Stock ID ROP levels. Sales Order Cut Off – sales order before this date will not be including in netting.			
-	3		ek of Month							
-	4		eek of Month		г					
	5	Middle of M	onth		\neg		d only, 7 types which determine how to split			
	6	Weekly Spl	t of Month				ed forecast for bucket. 6 – Will split forecast veek, starting on Start Date of Bucket, using			
	7	Daily Split o	ver Bucket				BT dates for weeks 2, 3, 4, 5 (if applicable).			

	CustID	Description			
•	100	Intel Corporation			
	200	Medtronic Corporation			
	300	300 Saturn Automotive			
	400	400 Magna Corporation			
	500	Hewlett Packard			
*					

Customers: Enter Customers you want to include or exclude in Forecast calculations. See Customers Include/Exclude.

Sales Orders can be excluded from the netting process by entry date, by location or by part.

Forecast and sales orders can be included or excluded by Customer. For Include logic the user enters forecasts by parts only for selected customers, and only sales from those customers are netted. Exclude logic is used when MAX contains forecast records from another source (such as EDI), and Advanced Forecast will not include sales from these customers. Forecast orders for these customers (as identified in the UDFKEY field on the order) will not be cleared. Customer specific logic uses the Customer ID in the "Cust ID" column from excel to only net sales for that customer

Global Parameters:	 Days in work week. Number of Features if using Feature/Options
Days in Work Week:	Customers Include/Exclude: 0-No Include/Exclude 1-Include Customers: Only Sales Orders for these customers will be netted 2-Exclude Customers: Sales Orders for these Customers will NOT be netted 3-Customer Specific: Customer or Customer Group will be netted. 4-Stock ID: Sales Orders will be netted by their Ship From Stock ID on Sales Order.
Drill Down:	Defaults: 1) Bucket Type 2) Include First Month 3) Alpha Factor 4) Drill Down code

Startup:

User can run program interactively by clicking on command button, or program can be setup to run automatically as a Windows Scheduler event (parameters set through Excel sheet, cutoff date defaults to start date of current bucket as determined from system clock).

Procedures:

If loading from a spreadsheet:

- 1) Ensure Excel Forecast file is up to date and is not open.
- Setting Update Forecast cell to 'Y' will tell program to read in new forecast, 'N' will use data already in Forecast table, skipping spreadsheet data. You can also select (Load with Update Forecast = "N") to ignore the setting in the spreadsheet.
 If loading from external forecast database:
 - 1. Ensure that the data settings are correct.
 - 2. And the data is current
- 3) Select Cutoff Date for Forecast generation (Start date of first Bucket in currently requested range)
- 4) Select in sequence:
 - a) **Import From Spreadsheet or External Forecast** this step will bring the data into the database and will not have any effect on MAX.
 - b) Net Sales / Forecast Against Forecast and Assign Bucket Dates this step will do the netting if requested and will match the bucket dates to the forecast and will not have any effect on MAX.
 - c) Load Net Forecast into MAX this step will load the Forecast Orders into MAX. Depending on setting the current forecast will be deleted in total or based on the parts being forecasted.
- 5) To run from command line in Windows Scheduler: Setup command line path to AdvForecast_SQL.exe, followed by /AUTO with optional parameters: Forecast ID, Spreadsheet file or External Name, and cut-off date (separated by a space.)

No optional parameters, defaults will be used:
C:\Program Files\AdvanceForecastSQL\AdvForecast_SQL.exe /AUTO
With optional parameters:
<u>Using Spreadsheet:</u> C:\Program Files\AdvanceForecast_SQL\\AdvanceForecast_SQL.exe \AUTO BPT C:\Projects\AdvForecast_SQL\Tester2_FCSTmax.xIs 1/20/2014
<u>Using External:</u> C:\Program Files\AdvanceForecast_SQL\AdvForecast_SQL.exe \AUTO BPT Avercast 1/20/2014
The date parameter can also use the following defaults: Asterisk = current date, "FOM" = first of current month, "FOP" = first of current period in Buckets

Processing:				
1	Advanced Forecast Module for MAX	/2016.0.0.15 - 🗆 🗙		
Activity Batch Updates Forecast Analysis R	leports Setup Forecast Tables Inquiries Ge	nerate Forecast Help		
Cutoffor Forecast/Sales Selection: Moday , October 3, 2016 Forecast IC BPTW V WEELLY TESTER Bucket Range ID: STW Select Sala Collection Method G Part ID	Process Forecast Source import From Spreadsheet Import From External Forecast	Forecast Input File C Vrojects/AdvForecastSQL V01 STEAter3 EFSTmax site Status: Open SpreadStrea		Input Spreadsheet File Or Import from External Source
C Aggregate C Drill Down				Cutoff date: select first day of
Drill Down Method Net Level © Feature Option © Top Level © Shop Order © Component Level © Multi Level BoM			4	current period (Bucket e.g. I/1/2010) (used for Jetermining which shipped
Replace All Users in As Is Table 🗭 Forecast Options Net Sales 🗭 Net Shipments 🗭 Net Supply Offset Starting Inventory	Last Forecast Load		c t	brders to include in netting and he starting period for loading new forecast orders).
Lead Time Offset Enabled Close Prior Forecast Orders Delete Forecast Orders Delete Forecast by Part	Last Run: 10/25/2016 1:47:10 PM Run By: MANAGER (BPT) FC Orders: 386		F	Forecast options.
Replenishment Enabled	Process			
MANAGER MAX: MAXSam2				

- 1) Cutoff for Forecast/Sales Selection: This will prevent any individual Forecast orders from being loaded that have due dates before the cut-off date, and is used for First Month forecast orders in combination with 'Include First Month' = 'S' to tell system to add individual forecast order quantities in the first month for FC orders that are before the cutoff date (will not be loaded) to those in the first month that are at or after the cutoff date (snowplowing demand for month.)
- 2) Forecast ID: the ID has to match the "Loc" column in the incoming spreadsheet and represents a profile of defaults for processing the forecast. Selecting the ID will set the switch values on the form, which can be changed if needed.
- 3) Bucket Range ID: is the set of time buckets associated with the Forecast ID. This can be changed.
- 4) Sales Data Collection Method:
 - a. Part ID specific parts
 - b. Aggregate forecast similar parts together (e.g. different colors but same basic part)
 - c. Drill Down forecast the components of a part
- 5) Drill Down Method:
 - a. Feature Option prior 3-month average quantity per of configured order components
 - b. Shop Order prior 3-month average quantity per of required components
 - c. Multi-level BOM exploded components

Forecast orders can be loaded one of seven ways (set by user in Excel) :

- First day of bucket
- Last day of bucket
- Middle of bucket
- 1st, 3rd week of bucket

- 2nd. 4th week of bucket
- Quarterly over the bucket
- Weekly buckets, evenly split over work days

Hit Process button after selecting individual steps (1, 2, 3) or all three at once:

Process Display:

Activity Batch Updates Forecast Analysis Reports Setup Forecast Tables Inquiries Generate Forecast Help Cutoff for Forecast/Sales.Selection: Monday October 3, 2016 Forecast ID: BPT Import From Spreadsheet Import From External Forecast Forecast ID: BPT BPT TESTER Bucket Range ID: DEFAULT Chrill Down Sales Data Collection Method Chrill Down Method Net Level Chrill Down Method Net Level Chrill Down Chrill Down Chronostic Level Component Level Compo		Advanced Forecast Module for MAX	: v2016.0.0.15 – 🗆 🗙
Cutoffor Porecasts Selection: Source Monday , October Source Import From Spreadsheet BPT Import From Spreadsheet BPT TESTER Import From External Forecast Bucket Range ID: DEFAULT DEFAULT Import ProjectsiAdvForecastSQLIXLS\Tester3_FCSTmax.xisx Sales Data Collection Method Forecast Inport From External Forecast C Aggregate Import ProjectsiAdvForecastSQLIXLS\Tester3_FCSTmax.xisx Portil Down Net Level C Fracust Control C Top Level C Shop Order C ComponentLevel	Activity Batch Updates Forecast Analysis	Reports Setup Forecast Tables Inquiries	Generate Forecast Help
C Multi Level BoM Replace All Users in As Is Table ✓ Forecast Options ✓ Net Sales ✓ Net Shipments ✓ Net Supply □ Offset Starting Inventory □ Lead Time Offset Enabled □ Close Prior Forecast Orders ✓ Delete Forecast Orders ✓ Delete Forecast Dy Part □ Replenishment Enabled □ Buckets Loade = 25 Process	Monday October 3, 2016 ▼ Forecast ID: F F BPT ▼ BPT ▼ Bucket Range ID: DEFAULT DEFAULT ▼ Sales Data Collection Method ♥ © Part ID ▲ C Aggregate ♥ C Drill Down Method ♥ ● Feature Option ♥ Top Level ● Fature Option ♥ Top Level ● Multi Level BoM ♥ Replace All Users in As Is Table ♥ Forecast Options ♥ Net Sales ♥ Net Supply □ Offset Starting Inventory □ Lead Time Offset Enabled □ Close Prior Forecast Orders □ Delete Forecast Orders □ Delete Forecast Orders □	Source Import From Spreadsheet Import From External Forecast Last Forecast Load Last Run: 2016-10-25 141720 Run By: MANAGER FC Orders: 366 Buckets Loaded = 25	C:VProjects/AdvForecastSQLIXLStTester3_FCSTmax.xisx Status: Open Spreadsheet Show Data Started: 2016-10-25 14:17:07 Started: 2016-10-25 14:17:07
MANAGER MAX: MAXSam2 .:	MANAGER MAX: MAXSam2		

Show Data: Reveals the input as it is read into the database

utoff for Forecast/Sales Selection: Monday, October 3, 2016	Process Forecast Source	Foreca	ist Input File:						
precast ID:	Import From Spreadsheet	C:\Pro	ects\AdvForeca	stSQL\XLS\Tester3_FCST	max.xlsx				
PT TESTER	Import From External Forecast	Status	:			¢	en Spreadshee	t Hide [)ata
EFAULT	_		2016	Column2	CY	Update Forecast	N	Column6	Colu
Part ID			2016	Column2	CY	Update Forecast	N	Column6	Colur
C Aggregate			2017		NY	**** CURRENT FL			
C Drill Down			Part No.	Description	Loc	J	F	м	A
Drill Down Method Net Level									
C Feature Option C Top Level			11000	Cust:100	BPT	1000	3000	600	400
C Shop Order C Component Level			11000	Cust:200	BPT	1000	3000	600	400
Multi Level BoM			11000	Cust:20649	BPT	1000	3000	600	400
			11000	Cust:ton000002	BPT	1000	3000	600	400
eplace All Users in As Is Table 🔽			11150	666	BPT	300	500	900	600
Forecast Options			L1	L10	BPT	200	200	600	100
			12250	12250	BPT	200	200	600	100
	Last Forecast Load		12300	12300	BPT	200	200	600	100
Net Supply	Last Run: 2016-10-25 141720		12350	12100	BPT	200	200	600	100
Offset Starting Inventory			12100	12100	BPT	200	200	600	100
Lead Time Offset Enabled	Run By: MANAGER		END						
Close Prior Forecast Orders	FC Orders: 366					5300	13500	6300	2700
Delete Forecast Orders	Buckets Loaded = 25	•							
Delete Forecast by Part Replenishment Enabled	Process								,

Inquiries: Forecast Summary: Shows the forecast before it is loaded into MAX by Part

2			Forecast Summ	nary		_ □	>
Location ID BPT-24-24 BUO Part ID	KETS	•					
11000		<u> </u>	1			1	
FCYear	DueDate	FFCQnt	FCQnt	Qnt1	Qnt2	Qnt3	Qr-
2015	6/1/2015	23.00	23.00	23.00	0.00	0.00	
2015	7/1/2015	12.00	12.00	12.00	0.00	0.00	
2015	8/1/2015	11.00	11.00	11.00	0.00	0.00	
2015	9/1/2015	33.00	33.00	33.00	0.00	0.00	
2015	10/1/2015	100.00	100.00	100.00	0.00	0.00	
2015	11/1/2015	45.00	45.00	45.00	0.00	0.00	
2015	12/1/2015	44.00	44.00	44.00	0.00	0.00	
2016	1/1/2016	55.00	55.00	55.00	0.00	0.00	
2016	2/1/2016	66.00	66.00	66.00	0.00	0.00	
2016	3/1/2016	66.00	66.00	66.00	0.00	0.00	
2016	4/1/2016	77.00	77.00	77.00	0.00	0.00	
2016	5/1/2016	88.00	88.00	88.00	0.00	0.00	
2016	6/1/2016	99.00	99.00	99.00	0.00	0.00	
2016	7/1/2016	111.00	111.00	111.00	0.00	0.00	
2016	8/1/2016	122.00	122.00	122.00	0.00	0.00	
2016	9/1/2016	133.00	133.00	133.00	0.00	0.00	

MRP Detail and Summary: Details:

						М	RP Inqui	ry							-	
Print Grid																
IRP Detail MRP Summary	Reports															
Part ID		Part	Туре			Mir	n. Order Qt	v Safet	v Stock							
11000		М -	Master	Schedule Part		- 0		0								
Description1		, Mfg.	LT	Purch. LT Per	. Days Yield	Ma	x. Order Q	ty Reord	der Point							
mputer MAX () 'OS'		49		0 0	100	0		0								
Description2 Plan. ID UOM Order Policy		Or	der Qty Mul	Itiple Reord	der Qty											
		N77	7	EA O -	Order	- 0		0								
									Available Stock							
Firm Plan Schedul	e Flag		n Hand		on-Net Qty	52	2	2249	21							
MRP Flag Q - Que	ue 🔻	89	2	0			Date Range									
Options							All Dates		•							
MRP Need Date										Tree	CT	Order	- Com	Deferrer		_
MRP Need Date Need Date Neederence	PO Due Date 🔽		de Plan	ned Orders 🕅 I	Available	ATP	ATF	Date /	Qty	Туре	i	Order	Fim	Reference		-
● MRP Need Date ○	Order	Туре	ST	Qty	Available 225,164.00	ATP 225,16	ATF 225,76	Date / 4/30/2015	197,653.00		ST 3	Order 50000196	V	Reference		-
● MRP Need Date ○	Order 20000876	Type CU	ST 3	Qty 188.00	Available 225,164.00 224,976.00	ATP 225,16 224,97	ATF 225,76 225,76	Date / 4/30/2015 5/1/2015	197,653.00		i	-	<u> </u>	Reference	1	-
MRP Need Date C Reference	Order 20000876 20000915	Type CU CU	ST 3 3	Qty 188.00 55.00	Available 225,164.00 224,976.00 224,921.00	ATP 225,16 224,97 224,92	ATF 225,76 225,76 225,76	Date / 4/30/2015 5/1/2015 5/5/2015	197,653.00 0.00 0.00		i	-		Reference		<u> </u>
MRP Need Date C Reference 2015M-006-REF1	Order 20000876 20000915 10000023	Type CU CU FC	ST 3 3 3	Qty 188.00 55.00 23.00	Available 225,164.00 224,976.00 224,921.00 224,898.00	ATP 225,16 224,97 224,92 224,92	ATF 225,76 225,76 225,76 225,73	Date / 4/30/2015 5/1/2015 5/5/2015 6/1/2015	197,653.00 0.00 0.00 0.00		i	-		Reference		-
MRP Need Date MRP Need Date MRP Need Date O	Order 20000876 20000915	Type CU CU	ST 3 3	Qty 188.00 55.00	Available 225,164.00 224,976.00 224,921.00 224,898.00	ATP 225,16 224,97 224,92 224,92	ATF 225,76 225,76 225,76 225,73	Date / 4/30/2015 / 5/1/2015 / 5/5/2015 / 6/1/2015 / 7/1/2015 /	197,653.00 0.00 0.00		i	-		Reference		<u>-</u>
MRP Need Date C Reference 2015M-006-REF1 2015M-007-REF1 >LEAD TIME 49 Days	Order 20000876 20000915 10000023 10000037	Type CU CU FC FC	ST 3 3 3 3 3	Qty 188.00 55.00 23.00 12.00	Available 225,164.00 224,976.00 224,921.00 224,898.00 224,886.00	ATP 225,16 224,97 224,92 224,92 224,92	ATF 225.76 225.76 225.76 225.73 225.72	Date / 4/30/2015 5/1/2015 5/1/2015 6/1/2015 6/1/2015 7/1/2015 7/10/2015 5/10/2015	197,653.00 0.00 0.00 0.00 0.00		i	-		Reference	_	<u> </u>
MRP Need Date C Reference 2015M-006-REF1 2015M-007-REF1 >LEAD TIME 49 Days 2015M-008-REF1	Order 20000876 20000915 10000023 10000037 10000053	Type CU CU FC FC FC	ST 3 3 3 3 3 3 3 3	Qty 188.00 55.00 23.00 12.00 11.00	Available 225,164.00 224,976.00 224,921.00 224,898.00 224,898.00 224,895.00	ATP 225.16 224.97 224.92 224.92 224.92	ATF 225.76 225.76 225.76 225.73 225.72 225.72 225.72	Date / 4/30/2015 / 5/1/2015 / 5/5/2015 / 6/1/2015 / 7/1/2015 / 7/10/2015 / 7/31/2015 /	197,653.00 0.00 0.00 0.00 0.00		i	-		Reference		ŕ
MRP Need Date C Reference 2015M-006-REF1 2015M-007-REF1 2015M-007-REF1 2015M-008-REF1 2015M-008-REF 2015M-008-REF1 2015M-008-REF1 2015M-008-REF 2015M-008-REF1 2015M-008-REF 2015M-008-REF1 2015M-	Order 20000876 20000915 10000023 10000037 10000053 10000066	Type CU CU FC FC FC FC	ST 3 3 3 3 3 3 3 3 3 3	Cty 188.00 55.00 23.00 12.00 11.00 33.00	Available 225,164.00 224,976.00 224,921.00 224,838.00 224,836.00 224,875.00 224,875.00 224,842.00	ATP 225,16 224,97 224,92 224,92 224,92 224,92 224,92	ATF 225.76 225.76 225.76 225.73 225.72 225.71 225.71 225.68	Date / 4/30/2015 5/1/2015 5/5/2015 6/1/2015 7/1/2015 7/10/2015 7/31/2015 9/1/2015	197.653.00 0.00 0.00 0.00 0.00 0.00 0.00		i	-		Reference		<u>^</u>
MRP Need Date C Reference 2015M-006-REF1 2015M-007-REF1 2015M-007-REF1 2015M-008-REF1 2015M-008-REF1 2015M-008-REF1 2015M-010-REF1	Order 20000876 20000915 10000023 10000023 10000053 10000053 10000066	Type CU CU FC FC FC FC FC FC	ST 3 3 3 3 3 3 3 3 3 3 3	Qty 188.00 55.00 23.00 12.00 11.00 33.00 100.00	Available 225,164.00 224,976.00 224,921.00 224,838.00 224,836.00 224,875.00 224,875.00 224,842.00 224,742.00	ATP 225.16 224.97 224.92 224.92 224.92 224.92 224.92 224.92	ATF 225.76 225.76 225.76 225.77 225.73 225.72 225.71 225.68 225.58	Date / 4/30/2015 5/1/2015 5/5/2015 6/1/2015 7/1/2015 7/10/2015 7/31/2015 9/1/2015 10/1/2015	197,653.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00		i	-		Reference		<u>_</u>
© MRP Need Date © 1 Reference 2015M-006-REF1 2015M-007-REF1 2015M-008-REF1 2015M-008-REF1 2015M-010-REF1 2015M-011-REF1 2015M-011-REF1	Order 20000876 20000915 10000023 10000023 10000053 10000066 10000081 10000095	Type CU CU FC FC FC FC FC FC	ST 3 3 3 3 3 3 3 3 3 3 3 3 3	City 188.00 55.00 23.00 12.00 11.00 33.00 100.00 45.00	Available 225,164.00 224,976.00 224,921.00 224,898.00 224,898.00 224,895.00 224,875.00 224,842.00 224,742.00 224,742.00	ATP 225.16 224.97 224.92 224.92 224.92 224.92 224.92 224.92 224.92	ATF 225.76 225.76 225.76 225.76 225.77 225.72 225.71 225.68 225.58 225.58 225.58	Date / Date / 4/30/2015 / 5/1/2015 / 5/5/2015 / 6/1/2015 / 7/1/2015 / 7/10/2015 / 9/1/2015 / 10/1/2015 10/30/2015	197,653.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00		i	-		Reference		ŕ
MRP Need Date C MRP Need Date C MRP Need Date C ModeREF1 2015M-006-REF1 2015M-007-REF1 2015M-008-REF1 2015M-008-REF1 2015M-010-REF1 2015M-011-REF1 2015M-011-REF1 2015M-012-REF1	Order 20000876 20000915 10000023 10000053 10000053 10000066 10000081 10000095 10000081	Type CU CU FC FC FC FC FC FC FC	ST 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Oty Oty 188.00 55.00 23.00 12.00 11.00 33.00 100.00 45.00 44.00 44.00	Available 225,164.00 224,976.00 224,921.00 224,898.00 224,886.00 224,875.00 224,875.00 224,842.00 224,742.00 224,697.00 224,653.00	ATP 225.16 224.92 224.92 224.92 224.92 224.92 224.92 224.92 224.92 224.92	ATF 225.76 225.76 225.76 225.76 225.77 225.72 225.71 225.75 225.75 225.75 225.75 225.75 225.75 225.75 225.75 225.75 225.75 225.75 225.75 225.75 225.75 225.75	Date / A/30/2015 / 5/1/2015 / 5/5/2015 / 6/1/2015 / 7/1/2015 / 9/1/2015 / 10/1/2015 / 10/1/2015 / 12/1/2015 /	197,653.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00		i	-		Reference		ŕ
MRP Need Date C Reference 2015M-006-REF1 2015M-007-REF1 2015M-007-REF1 2015M-008-REF1 2015M-008-REF1 2015M-008-REF1 2015M-018-REF1 2015M-011-REF1 2015M-013-REF1 2015M-013-REF1 2015M-013-REF1 2015M-013-REF1 2015M-013	Order 20000876 20000915 10000023 10000037 10000053 10000061 10000081 10000081 100000113	Type CU CU FC FC FC FC FC FC FC FC FC	ST 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Qty 188.00 55.00 23.00 12.00 11.00 33.00 100.00 45.00 44.00 55.00	Available 225,164.00 224,976.00 224,921.00 224,898.00 224,898.00 224,895.00 224,842.00 224,742.00 224,657.00 224,653.00 224,598.00	ATP 225.16 224.92 224.92 224.92 224.92 224.92 224.92 224.92 224.92 224.92 224.92	ATF 225.76 225.76 225.76 225.73 225.71 225.88 225.58 225.53 225.44	Date / Data / 4/30/2015 // 5/1/2015 // 5/5/2015 // 7/1/2015 // 7/1/2015 // 9/1/2015 // 10/1/2015 // 10/1/2015 // 12/1/2015 // 1/1/2015 //	197,653.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00		i	-		Reference		
MRP Need Date C Reference 2015M-006-REF1 2015M-007-REF1 >LEAD TIME 49 Days 2015M-008-REF1 2015M-008-REF1 2015M-010-REF1 2015M-011-REF1 2015M-011-REF1 2015M-012-REF1	Order 20000876 20000915 10000023 10000053 10000053 10000066 10000081 10000095 10000081	Type CU CU FC FC FC FC FC FC FC	ST 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Oty Oty 188.00 55.00 23.00 12.00 11.00 33.00 100.00 45.00 44.00 44.00	Available 225,164.00 224,976.00 224,921.00 224,898.00 224,886.00 224,875.00 224,875.00 224,842.00 224,742.00 224,697.00 224,653.00	ATP 225.16 224.92 224.92 224.92 224.92 224.92 224.92 224.92 224.92 224.92 224.92	ATF 225.76 225.76 225.76 225.73 225.71 225.88 225.58 225.53 225.44	Date / Data / 4/30/2015 // 5/1/2015 // 5/5/2015 // 7/1/2015 // 7/1/2015 // 9/1/2015 // 10/1/2015 // 10/1/2015 // 12/1/2015 // 1/1/2015 //	197,653.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00		i	-		Reference		<u>_</u>

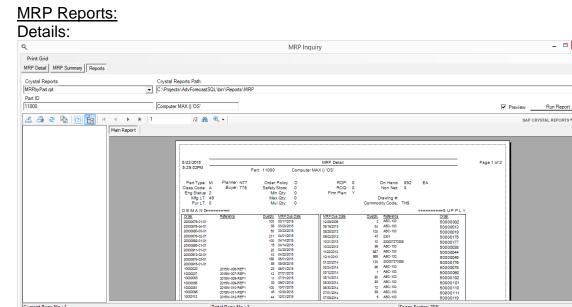
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Summary:

art ID		Part Type On H	and Non N	lettable	Time Buckets				
1000		M D	892						
escription1					• Daily				
Computer MAX () 'OS'					C Weekly				
Description2 Yield Start date					C Monthly				
100 Friday , May 22, 2015 ▼				22, 2015 💌	C Quarterly				
Options									
	Orders 🗌 Include F	Planned Orders	O MRP	Need Date O P	O Due Date				
						-			
Grouping	PastDue	5/22/2015	5/25/2015	5/26/2015	5/27/2015	5/28/2015	5/29/2015	6/1/2015	6/2/2015
orecast Demand	0	-	0	0	0	0	0		0
ustomer Demand	840		0	0	0	0	0		0
Dependent Demand	0	_	0	0	0	0	0	-	0
Fotal Demand	840	_	0	0	0	0	0		0
Projected Supply	224,967		0	0	0	0	0	-	0
Planned Scrap	0	-	0	0	0	0	0	-	0
Net Available	225,019	225,019	225,019	225,019	225,019	225,019	225,019	224,996	224,996
Planned Orders	0	_	0	0	0	0	0	_	0
Available to Promise	225,019		225,019	225,019	225,019	225,019	225,019	225,019	225,019
vailable to Forecast	225.859	225,859	225.859	225.859	225.859	225,859	225.859	225,859	225,859

Current Page No.: 1

BPT\TimSchell



Total Page No.: 2

MAX: |

- 🗆 🗙

SAP CRYSTAL REPORTS *

Zoom Factor: 75%

Summary:

		MRP	Inquiry		
int Grid					
P Detail MRP Summary Reports					
/stal Reports	Crystal Reports Path:				
PSummarybyPart.rpt	 C:\Projects\AdvForecastSQL\bin\ 	Reports\MRP			
rt ID					
000	Computer MAX () 'OS'				Preview Run Report
, 🗂 a 🗞 😰 📴 H 🖂	▶ H 1 /2 🏦 🔍 •				SAP CRYSTAL REPORTS*
	n Report				
3/1/2015					
3/15/2015	[
3/22/2015					
3/29/2015					
4/12/2015	5/00/0045		1100.0		
4/19/2015	5/22/2015		MRP Summary		Page 1 of 2
4/26/2015	5:30:11PM	Part:	11000 Computer MA	X () 'OS'	
5/3/2015 5/31/2015					
6/28/2015	Part Type: M Planner; N77	Order Policy O	ROP: 0	0.00 On Hand: 892.00 EA	
7/26/2015	Class Code: A Buyer: T76	Safety Stock 0.00		0.00 Non Net: 0.00	
8/30/2015	Eng Status: 2	Min Qty: 0.00	Firm Plan:		
9/27/2015	Mfg LT: 49	Max Qty: 0.00	r inter tan.	Drawing #:	
10/25/2015	Pur LT: 0	Mul Qtv: 0.00		Commodity Code: TH\$	
11/29/2015					
12/27/2015	REQUIREME	NTS		SUPPLY	
1/31/2016	DueDate	RunningTotal	NetByDate	RunningTotal	
2/28/2016				-	
3/27/2016	01/29/2015	0	16,584	15,692	
4/24/2016	03/02/2015	0	17,849	16,957	
5/29/2016	03/20/2015	18.527	-577	17.058	
6/26/2016 7/31/2016					
8/28/2016	03/23/2015	23,377	-5,357	17,128	
	04/01/2015	43,844	-15,824	27,128	
9/25/2016 V	Total F	age No.: 2		Zoom Factor: 100%	

Batch Updates:

Set Aggregate Codes in Sales Order Details:

Add Aggregate Codes to Open Sales Orders	
Location 10: 123 [6]AG1 ==> 11000 - Power Serve 2299 (1)A11000 ==> 11050 - Spec 46:571.2 (0)11000 ==> 11100 - Power Serve 5600 (1)11000 ==> 11111 - Model 1000 Pretol (2)11000 ==> 13800 - Printed Cicat Board (2)AG1 ===> HUH + HUH TESTER ====================================	This process will update open Sales Orders and Orders with Ship Dates on or after the entered cutoff date with the Aggregate codes defined in Part Sales UDFKEY_29.
L	This process is only needed if using the Aggregation.

Forecast Purge:

Used to delete forecast orders from MAX.

2	Purge MAX Forecast Orders	AdvFored	ast_SQL		×
Include Closed Forecast Orders If checked, purge Forecast prior to:	☞ Wednesday, December 31, 2014 💌	Are you sure you want to purge Fored	ast Orders prior to	12/31/2014?	
Purge			Yes	No	

The purge function can also be run in command mode by passing the following parameters:

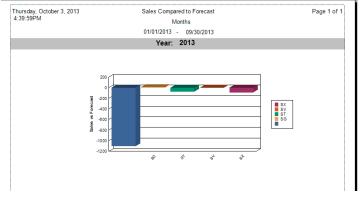
/PURGEFC 365 Y

355 = days to go back from current date and Y/N to indicate whether closed forecast are to be purged. If the 2nd and 3rd parameters are missing 0 and "N" will be used.

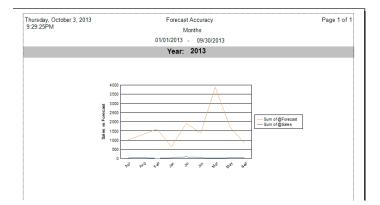
|--|

Forecast Analysis Reports: Image: state of the state of t	Assign Buckets: sorts and summarizes the sales and forecast data into buckets defined
From: To: Thursday , January 1, 2015 To: Thursday , April 30, 2015 Buckets: Bucket Range for Reporting: Assign Buckets DEFAULT	by a selected Bucket Range. The summarized data is stored in a MAX table called: CUSTOM_BPT_ADVFCST_SUMMARY
Report: Forecast Accuracy By Period and Part Report.pt Printer: NBptmule \HP Photosmart C5200 series Run Report	 dbo.Custom_BPT_ADVFCST_Summary Columns RECID (int, not null) UserName (nvarchar(100), null) Part (nvarchar(30), null) Due_Date (smalldatetime, null) BucketLabel (nvarchar(20), null) SalesQty (float, null) FcstQty (float, null) CustID (varchar(30), null) StkID (varchar(30), null)

Forecast Accuracy Difference by Category Graph



Forecast Accuracy Sales versus Forecast Line Graph



Forecast Accuracy By Period and Part Report

Fhursday, October 9:31:16PM	r 3, 2013	Fore	cast Accuracy Months			Page 1 of 1
		01/01/2013	- 09/30/2013			
			2013			
Part	Description		Bucket	SalesQty	FcstQty	Delta
11000	PowerServe 2299		Feb	0	25	-25
			Mar	0	30	-30
			Apr	0	20	-20
			May	1	/1	-70
			Jun	16	0	16
			Jul	23	0	23
			Aug	33	0	33
11000-A10	PowerServe 2299		Jan	48	0	48
			Feb	12	0	12
			Mar	0	10	-10
			Apr	22	0	22
			May	0	27	-27
			Jul	34	20	14
			Aug	0	60	-60
11000-A20	PowerServe 2299		Feb	0	10	-10
			Mar	0	11	-11
			Apr	0	15	-15
			May	20	42	-22
			Jul	34	20	14
			Sep	56	0	56

Sales vs. Forecast by Category Bar Chart



Audit Reports:

Sales Quantities by Part and Bucket: Run as an option when initially reading the forecast spreadsheet:

Part							1
	1		2		3		Total
11000		16.00		200.00		200.00	416.00
HUH		0.00		200.00		0.00	200.00
Total		16.00		400.00		200.00	616.00

2/19/2008

Netted Forecast Quantities by Part and Bucket: Run as an option when netting the forecast.

	1/1/1980	1/1/2008	2/1/2008	3/1/2008	4/1/2008	5/1/2008	6/1/2008	7/1/2008	8/1/2008
11000	0.00	0.00	3,000.00	600.00	400.00	56.00	23.00	12.00	11.0
11150	0.00	264.00	440.00	792.00	0.00	0.00	0.00	499.00	0.0
13000	0.00	150.00	300.00	600.00	0.00	0.00	0.00	0.00	0.0
HUH	0.00	0.00	20.00	30.00	40.00	50.00	40.00	12.00	10.0
L1	0.00	200.00	200.00	600.00	100.00	190.00	200.00	300.00	100.0
Total	0.00	614.00	3,960.00	2,622.00	540.00	296.00	263.00	823.00	121.0

2/19/2008

Generate Forecast:

8	Generate Forecast From MAX Sales History -	□ ×	Γ
History Source			
Sales 🔽	Usage	-	
	Stock ID Specific:		
From: Sunday	. January 1, 2012 💌 To: Monday , December 31, 2012 💌	-	
Forecast Options	O Quarterly		
2014 💌	Output Folder: C:\Projects\AdvForecastSQL\bin\NewForecasts Monthly		
	O Weekly Output Name: FcstVS-14.xls		
Bucket Type:	1 - First of Bucket 🔽 🗌 Include First Month 1st Year Increase/Decrease %:	4	
Forecast ID:	BPT-24 - 24 BUCKETS 💌 2nd Year Increase/Decrease %:	5	
Drill Down:	- No Drill Down		
Parts Selected His			
Parts Selected His	tory		
Part Sales Onl	y Planner: Commodity Code:	J 🛛	
	Part Type: A11 Account Type:	J 🛛	N.
Part ID F	Range From: To:	- 1	
PartID	Description Type Commodity OnHand		
			1
			1
	Select Parts Get History Create Sprea	adsheet	

Generate a forecast from sales history.

Select date range, periods, planner, commodity code, account type and/or part ID range.

- Select Parts remove any un-wanted parts by deleing from the grid
- 2) Get History extracts the sales history by period based on the selection criteria
- Create Spreadsheet loads the data into a spreadsheet that is ready to be loaded into MAX

Select Parts:

Parts Selected History												
Part Sales Only Planner: Commodity Code: Part Type: A11 Account Type:												
Part ID Range From: To:												
PartID	Description	Туре	Commodity	OnHand		<u> </u>						
► 100-C	MULT-BALANCE	Α	R1000	0.00		-						
11100	Master Server	А	COMP-MFG	11.00								
11111	Model 1000 Famil	F		0.00								
11150	Ruggedized Cas	Α	COMP-MFG	3.00								
12100	System Unit	А	COMP-MFG	88.00								
12150	System Unit, Milit	А	COMP-MFG	0.00		•						
	1		i									
		_		-	- 1							
			Select Parts	Get His	Create Spreadsheet							

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Get History:

PartID	NumBucket	Bucket	Sold	Used	
12100	8	August	0.00	9.00	
12100	9	September	0.00	0.00	
12200	8	August	0.00	5.00	
12300	8	August	0.00	3.00	
13000	8	August	0.00	40.00	
13000	9	September	0.00	8.00	
13210	8	August	0.00	5.00	
13400	8	August	0.00	0.00	
13990	8	August	0.00	4.00	
13990	9	September	0.00	0.00	
HD-1	8	August	24.00	0.00	

Create Spreadsheet:

- 4	A	B	C	D	E	F	G	H	- I	J	K	L	M	N	0	P	Q	R
1	A	В	С	D	E	F	G	Н		J	K	L	М	N	0	Ρ	Q	R
2	2014		CY															
3	2015		NY															
4	Part No.	Descriptio	LOC	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
5																		
6	12100	System Ur	BPT-24	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0
7	12200	Cabinet	BPT-24	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
8	12300	Mother Bo	BPT-24	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
9	13000	Keyboard	BPT-24	0	0	0	0	0	0	0	42	8	0	0	0	0	0	0
10	13210	Hard Drive	BPT-24	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
11	13400	Microproc	BPT-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	13990	Box, Cardi	BPT-24	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0
13	HD-1	SOLID ST.	BPT-24	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0
14	L2	LOT TEST	BPT-24	0	0	0	0	0	0	0	1	26	0	0	0	0	0	0
15	L5	LOT TEST	BPT-24	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0
16	LS1	LOT SERI	BPT-24	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
17	PANEL1	PCB 1	BPT-24	0	0	0	0	0	0	0	40	18	0	0	0	0	0	0
18	REEL1	REEL COM	BPT-24	0	0	0	0	0	0	0	557	183	0	0	0	0	0	0
19	REEL2	REEL COM	BPT-24	0	0	0	0	0	0	0	493	237	0	0	0	0	0	0
20	REEL3	REEL COM	BPT-24	0	0	0	0	0	0	0	152	79	0	0	0	0	0	0