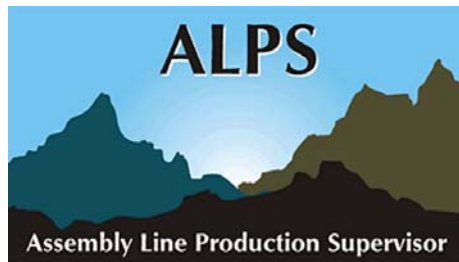


# ALPS LT 2.80 Release Bulletin



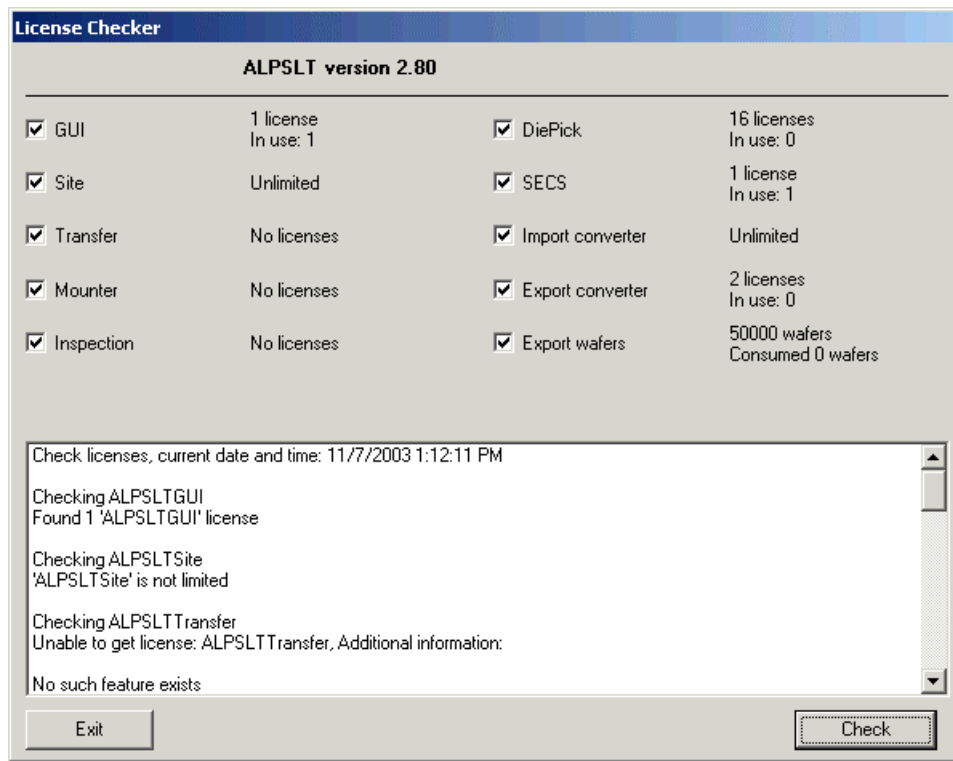
## General

- ❑ Database corruption problems solved: Several customers reported database corruption problems with the newer ALPS LT versions (2.61, 2.70). As part of the solution, the MS Access software (Microsoft Jet database engine) is no longer used by ALPS and has been replaced by Microsoft SQL Server 2000 Desktop Engine (MSDE 2000).
- ❑ System configurability improved: ALPS now offers an even smoother upgrade path beyond the limitation of the standard system of maximum 16 equipment connections per system, to much larger systems:
  - In the past such an upgrade required replacement of the ALPS EL/LT software by ALPS NT. ALPS NT uses Oracle for its database but offers the same graphical user interface (GUI) as ALPS LT; thus removing the need of operator re-training. Upgrading to ALPS NT is still possible with version 2.80.
  - From ALPS EL/LT 2.80 upward, upgrading to much larger system configurations can alternatively be realized by installing a higher-level SQL Server 2000 version, instead of the MSDE 2000 software included with the standard ALPS delivery. Such a SQL Server license should be acquired and installed by the customer separately. Different from the above-mentioned ALPS NT upgrade, this type of upgrade does not require a different ALPS software version.
- ❑ Database security improvements: The use of SQL Server (MSDE) by ALPS allows setting up reliable procedures for database backup, without interruption of production in the assembly plant.
- ❑ Windows security improvements: There is no need anymore on ALPS Server/Client installations to share a directory on the ALPS Server.
- ❑ Network failure sensitivity improvements:
  - Communication between ALPS Client and the database on the Server is re-established automatically without the need to restart the Server and/or the Client computers
  - Correct handling of licenses has been improved, also on hard restarts of computers.

- ❑ Internet Protocol addressing improvements: ALPS can now be used both with fixed IP addresses and with DHCP, to dynamically assign IP addresses to the ALPS Server and Client computers.
- ❑ Many stability improvements and clean-ups have been done on the ALPS GUI:
  - Error situations have been resolved, requiring a restart of the ALPS GUI using the Windows Task Manager.
  - Checks have been built in on the presence of incorrect reference die data in wafer maps imported, causing error messages on the ALPS GUI.
  - For file paths you specify in ALPS (import, logging, etc.) you are now required to always specify a Windows user.
  - Improvements of error message texts (all licenses being used, delete format that is still being used, etc.).
  - Improved consistency when navigating between screens: as much as possible related information (about the same wafer/run/format/recipe etc.) is shown.
  - The Folder Utility does not work correctly on Windows NT 4. It produces a "parameter error" when checking the location of the Sort log file in the Sort screen.
  - Further changes are listed for each of the GUI screen-specific information in the sections below.
- ❑ The wafer map printout function (several ALPS screens) now includes a bin list (which bins; number of dies) for each wafer map reported:

5750688-10			
<b><i>Wafer Information</i></b>			
Wafer ID:	5750688-10		
Frame ID:	5750688-10		
Run ID:			
Shipment ID:			
Wafer State:	MAPIMPORTED		
Total Columns:	76		
Total Rows:	60		
Null Bin:	130		
Total Dies:	3584		
Original Format:	EG_SECS 3.5		
Bin list:			
	<u>Code(Decimal)</u>	<u>Code(Ascii)</u>	<u>Count</u>
	15	(n/a)	13
	48	0	3095
	52	4	1
	56	8	110
	253	(n/a)	365

- The use of “features” from the ALPS license file has been improved, resulting in the License Tester to provide more meaningful information. For instance, the number of GUI licenses checked out now really represents the number of users logged-in on ALPS GUIs:



## Import Screen

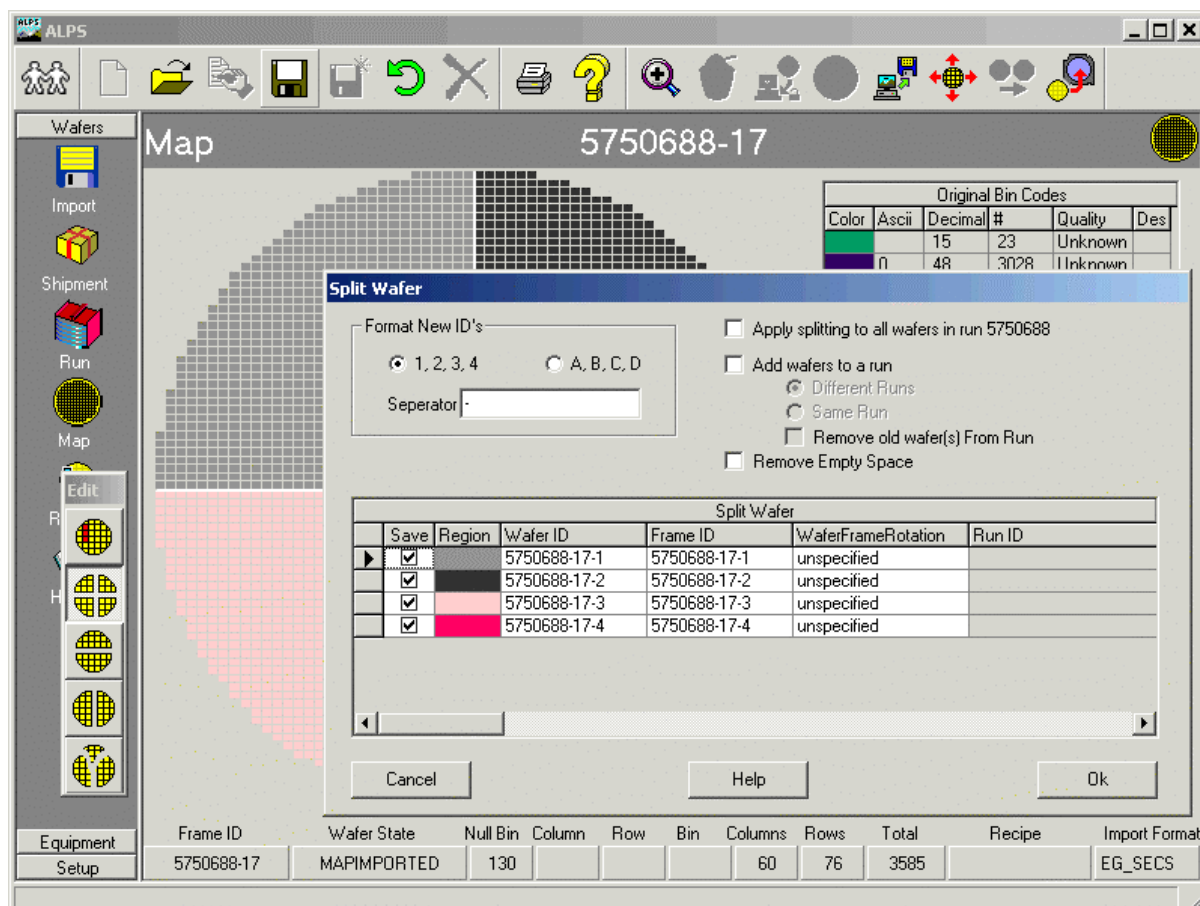
- When entering the Import screen, it took a long time before the whole screen was built up. This has been solved.

## Run Screen

- Wafers in the same Run with different wafer/frame orientation are no longer in the same split – meaning that they will be considered different devices, etc.
- When switching between lot A and lot B where lot B has no wafers; the info at the bottom of the screen (Wafer State, ...) is not updated.
- Fixed bug that the wafer orientation in the Run screen does not correspond with the setting on the System screen (works ok on Map and History screens).
- Solved a cosmetic problem: When creating a new run, the name of the run was not shown in the title bar.

## Map Screen

- ❑ Lot splitting has been implemented: When saving a split wafer, you can select that the all the wafers in the same Run will be split the same way. In that case, the wafers can also be assigned to the same run or to new runs. A few other settings allow the original wafer maps to be removed from the run, if desired.
- ❑ When splitting wafers, you can decide for each of the segments what to do with the missing part of the wafer:
  - Remove it from the wafer map
  - Replace the dies by null bin codes



- ❑ Repaired the Map screen behaviour when editing dies, specifying bin codes that have not yet been used.
- ❑ Added a new wafer state MAPSPLIT, being the state of the wafer after the map has been split. It is assumed that the wafer does not exist anymore, so the map cannot be downloaded, edited, etc. Recovery is allowed, of course.
- ❑ Corrected a map splitting bug: When the flat/notch setting of ALPS is not at the bottom, the splitting is done incorrectly.


- ❑ Repaired a cosmetic problem with run splitting: the "Apply splitting to all ..." text does not fit in the form when using a lower resolution (1024x768). Also, the column frame orientation actually specifies the orientation of the wafer on the frame.

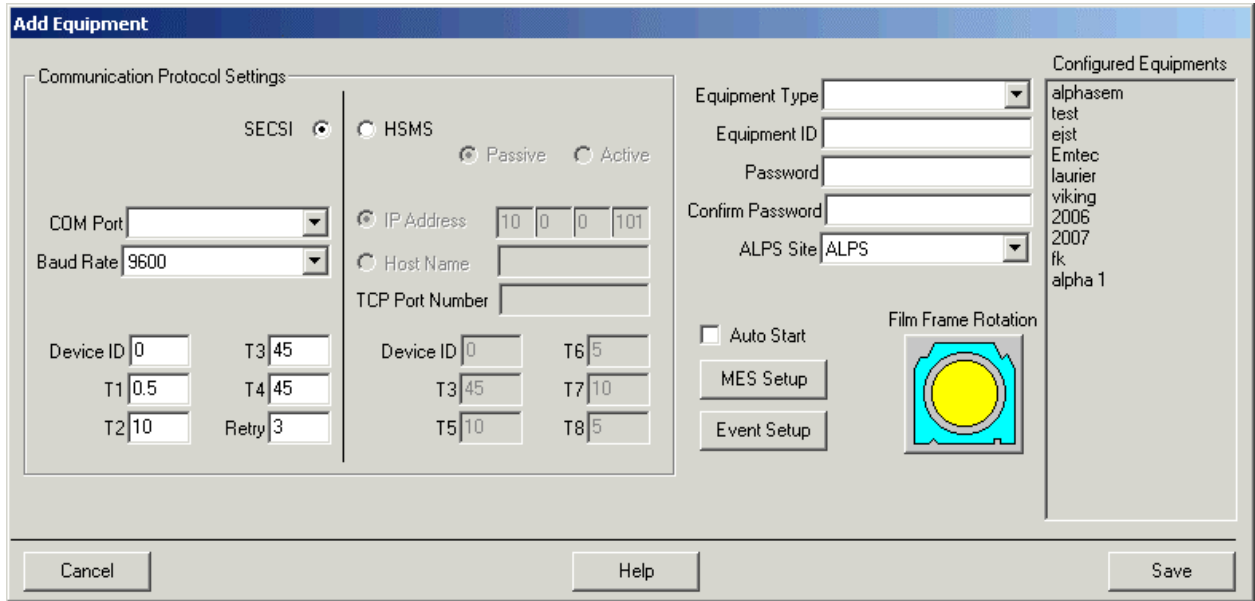
## ***Recipe Screen***

- ❑ The "Blind picking" feature has been investigated and improved considerably. This feature allows to process wafer for which no actual wafer maps are present; only a template map specifying the general wafer layout.
- ❑ The "recipe delete" bug has been solved (import wafer, create recipe, delete wafer, go back to recipe screen: problem).
- ❑ Repaired the recipe screen behaviour, when selecting (explicitly or implicitly) a wafer that has no wafer map.
- ❑ Repaired a problem on the Recipe screen that reference die coordinates are calculated incorrectly for wafer orientations 90 and 270.
- ❑ Repaired a problem that a recipe can be created without "Create and Edit recipes" permission.
- ❑ Repaired a problem that reference die Y coordinates cannot be entered correctly for wafer orientations 90 and 270.

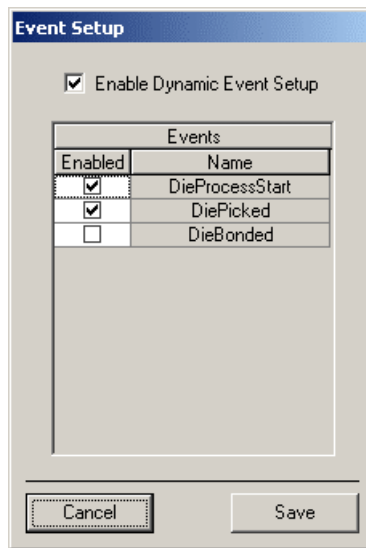
## ***Die Pick Screen***



- ❑ Zoom feature  has been added, like on the Map screen, History screen, etc. During die picking, the wafer map display is automatically repositioned to show the part of the wafer where the dies are picked, while maintaining the same zoom factor.
- ❑ ALPS supports the use of DHCP for defining dynamic IP addresses for both ALPS computers and equipment attached with HSMS connections. Instead of the equipment's IP address, the host name of the computer can be specified.  
**Note:** The HSMS standard, used for communication by certain equipment types, requires fixed IP addresses. When connecting ALPS to equipment using the HSMS protocol it may therefore very well be necessary to still use fixed IP addresses for that communication.
- ❑ The New/Edit Equipment window now shows all equipment defined in the system, to prevent the customer trying to use an already defined equipment id again:



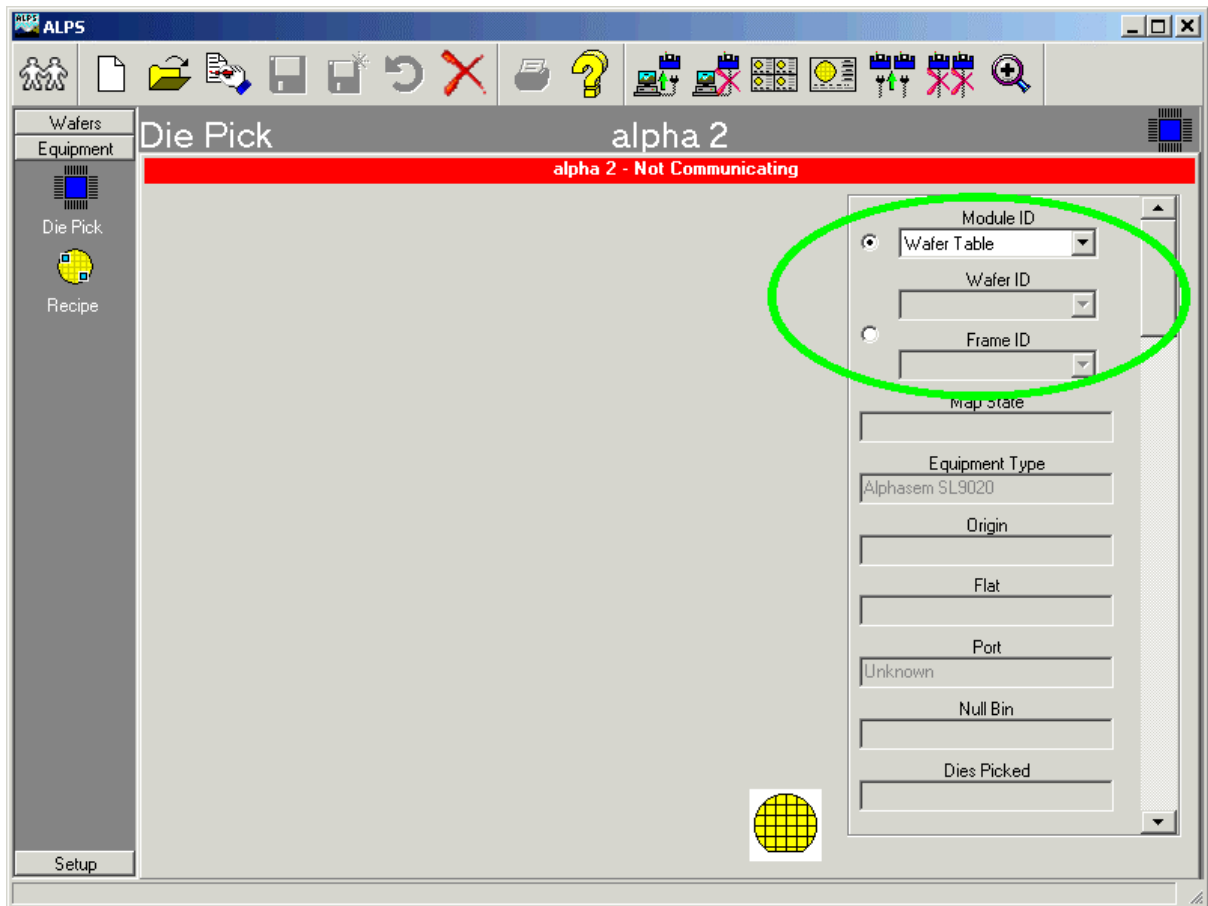
- The feature to define which events should be sent by the equipment, has been re-instated:



- The problems with starting new/edited equipment drivers while other drivers are still running, has been solved. Starting such drivers is now prevented and the GUI shows clear driver status information (DISABLED / NOT RUNNING / STARTING / RUNNING / STOPPING):

Name	Type	Status
Die attach #1	Alphasem Easyline	DISABLED
Die attach #2	Datacon	RUNNING
Die attach #3	Esec 2008	RUNNING
Die attach #4	Asm	RUNNING
Die attach #5	Alphasem SL9000	RUNNING
Die attach #6	Esec 2008	RUNNING
Die attach #7	Alphasem Easyline	RUNNING
Die attach #8	Datacon	RUNNING

- ❑ A verification is done with the operator ("are you sure...") when requested to stop equipment driver(s).
- ❑ For multiple-wafer, single-module equipment the Die Pick screen by default selects the one-and-only module:



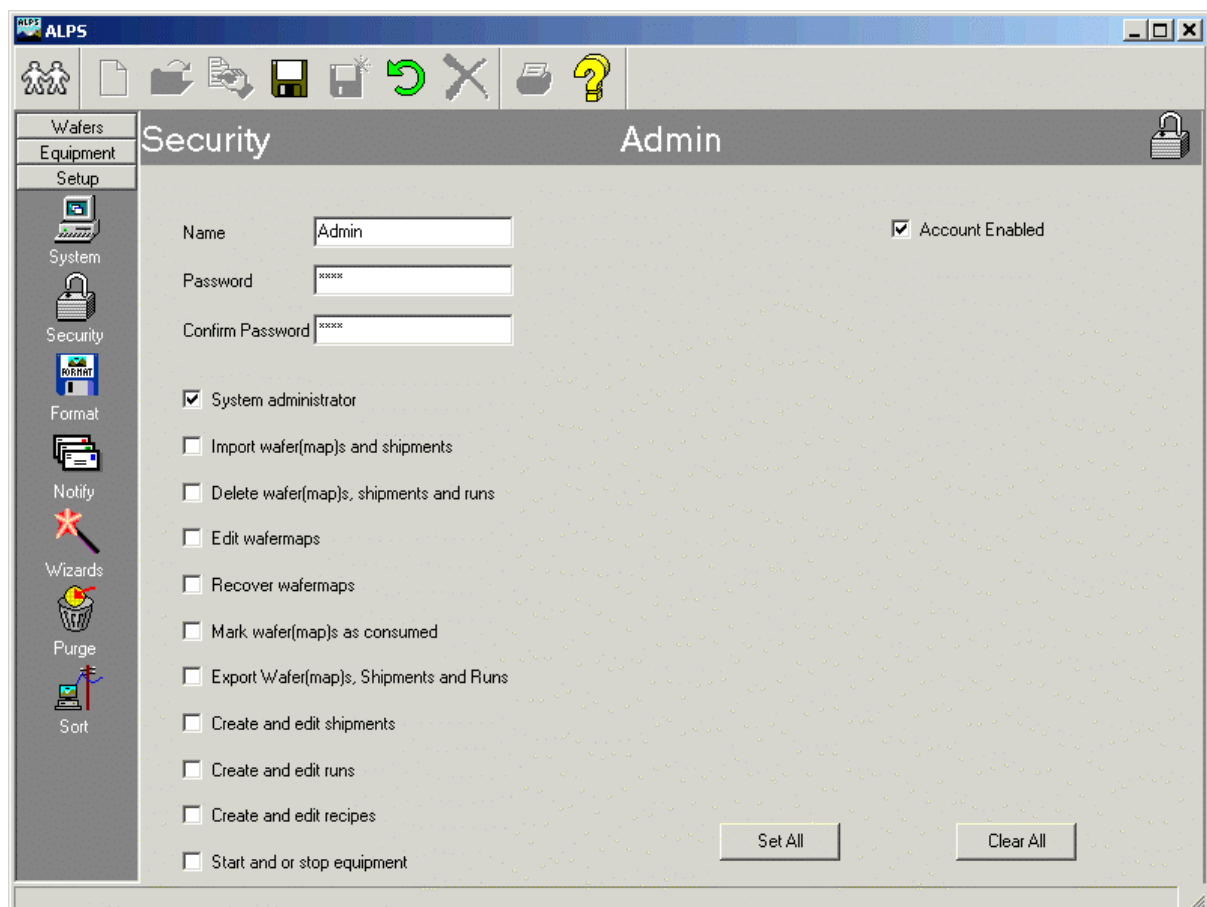
- ❑ Corrected a problem that newly defined equipment was not shown on the selector window.
- ❑ The multiple-wafer version of the F&K Delvotec driver is included.

## System Setup Screen

- ❑ Improved error handling when attempting to enable a local Equipment connection in the System screen while all SECS licences are already being used.

## Security Setup Screen

- ❑ The equipment driver start/stop permission has been separated from the System Administrator permission
- ❑ Buttons have been added, allowing to set and clear all permissions simultaneously.



## Format Setup Screen

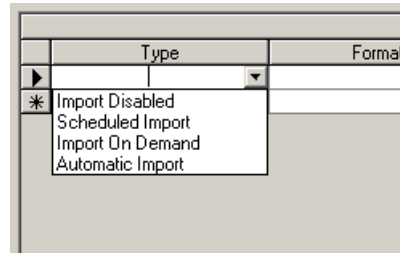
- ❑ Improved error handling when deleting a Format that is still being used by a Wafer or a Recipe.
- ❑ Repaired the bug that you could specify multiple NullBin codes.

## Notify Setup Screen

- Repaired a bug that not all events you can specify to trigger a notification e-mail would actually do so.

## Sort Setup Screen

- ALPS Sort: a new kind of automatic import has been implemented. We now have:



- **Scheduled Import**, which is the same as the former Automatic Import: Wafer maps are imported periodically, at user-defined intervals from user-defined file locations.
  - **Automatic Import (new)**: Wafer maps are imported as soon as new files are entered into the user-defined Import directory.  
Note: This works only for import using Windows file sharing, not when FTP is used.
  - **Import on Demand**: Wafer maps are imported only on request by equipment requiring the wafer map.
- Logged information for import runs has been made more informative.

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