

# Application Modifications and Enhancements

*HiCAMS Version 6.1 and Vendor 3.8 were released 9/23/2006.*

## **HiCAMS Version 6.1**

### **HICAMS – General**

- The Minimum Sampling Guide (MSG) has been redesigned to incorporate version control. This means that when MSG Material Types are changed, the changed version will affect future contracts and not be retroactive to all current contracts as it had been in the past. M&T will also be able to correct errors on the MSG and apply them to existing contracts at their discretion to take effect going forward.
- The MSG redesign's main impact on users will be that the Date will now need to be entered before the Material is selected so that the correct MSG Material Type is used. Except for the change to this order, the remainder of the data entry should be the same.
- The system has been enhanced to handle 2006 Standard Specification changes for Fuel threshold percent and Material Prepayment Invoice Percent.

### **CONTRACT SETUP – Authorize Contracts**

- The window has been corrected to work with the “Prompt for additional staff” option turned on in Flexible Notifications.

### **CONTRACT MAINTENANCE – Activate Contracts**

- Review Work Items has been removed from the right-mouseclick function in the verify portion of the window.

### **CONTRACT MAINTENANCE – Review Contract Details**

- The window has been enhanced to include a Fuel Threshold Percent field. The value will be defaulted from the system constants based on the contract's letting date. Contracts let before 11/01/05 have a default value of 10%. Contracts let on or after 11/01/05 will have a default value of 0%.
- The window has been enhanced to include an MPP Invoice Percent field. This value will be defaulted from the system constants based on the spec year of the contract. Contracts for spec years prior to 2006 have an MPP invoice percent of 90%. Contracts let for spec year 2006 have an MPP invoice percent of 95%.
- A Work Start Date value may now be entered that is greater than or equal to the contract's Completion Date.
- The Escrow Agent checkbox has been protected except for cases where an escrow agent has been assigned via BSIP.
- “OTH” type line items created by the Help Desk are now available in the Set Warranties window.

## **CONTRACT MAINTENANCE – Review Contract BOM**

- The Contract Bill of Materials window has been modified to track the version of the Minimum Sampling Guide in effect on each contract's letting date. This will allow the Materials Operations Engineer to apply specification changes to new contracts without affecting contracts already using a previous spec version of the MSG. An updated version of the Contract Maintenance – Review Contract Bill of Materials user guide will be available for download on the Main HiCAMS homepage <http://www.ncdot.org/it/projects/hicams/default.htm>.
- The Check for Materials indicator will be checked now whenever there are no materials for the source item on the Master Bill of Materials, or if the pay item is considered Generic or Supplemental.
- "OTH" type line items created by the Help Desk are now available to have materials assigned to them on the Contract Bill of Materials.
- The window has been corrected to allow deletion of materials that have substitution groups, even down to the final record. At the point there is only one record remaining, the system will automatically remove its substitution group.
- The Total Material Quantity field has been removed from the Contract Bill of Materials report.
- Materials added to the Contract Bill of Materials must have a non-zero conversion factor.
- A warning will be issued if a conversion factor is set to 1 but the line item unit of measure differs from the material unit of measure. A conversion factor of 1 should only be considered when the line item and material units of measure match.
- A new MSG tab has been added to track the MSG versions over the life of the contract that were used for each material on the Contract Bill of Materials.
- The window has been corrected to keep the insert icon available when appropriate. There were navigation instances previously where the icon would disappear.

## **CONTRACT MAINTENANCE – Review Contract Times**

- The Events tab column "Event Comment" has been renamed "Event Description", word-wrap has been added to the right-mouseclick function, and the cursor focuses on this field when a record is inserted.
- The Dates and Damages tab has been enhanced to display availability date ranges when applicable.
- The window has been modified to allow a Substantial Completion Rate to be deleted or to have a value of 0.

## **CONTRACT MAINTENANCE – Review Work Items**

- The label "Bid Quantity" has been changed to "Plan Quantity".
- The window has been modified to allow entry maximum entry of a Plan Quantity of 99,999,999.999.

## **CONTRACT MAINTENANCE – Review Subcontracts**

- The window has been corrected to reflect the certification percentage in the subcontract goals amount.
- It is no longer necessary to re-select ALL for the Other Type when selecting a Subcontractor. All once again means All Other Types.
- “OTH” type line items created by the Help Desk are now available in Subcontracts.

## **CONTRACT ADJUSTMENTS – Review Supplemental Agreements**

- The SA/FA report has been corrected to display the current contractor on defaulted contracts.
- “OTH” type line items created by the Help Desk are now available to have Supplemental Agreements created against them.

## **CONTRACT TRACKING - Review Material Receipts**

- The Line Item chosen from the dropdown list at the top of the window will now default in the Line Item column in the grid when inserting a Material Receipt.
- The window has been corrected to properly display the How Accepted code when navigating to the window from Project Certification.
- “OTH” type line items created by the Help Desk are now available in Material Receipts.

## **CONTRACT TRACKING - Review Pay Records**

- Corrected a problem that prevented the quantity from being edited if the pay record window was left open during generate and review estimate. The windows remain synchronized now, so updating an In Process pay record will set the estimate status back to pending generate, and the pay record status will remain in synch with the estimate processing status.
- “OTH” type line items created by the Help Desk are now available in Pay Records.

## **CONTRACT TRACKING - Review Tickets**

- The Ticket window has been modified such that Tickets entered against Work Items require at least one of the Do Not Pay indicators to be set.
- Modified the message that requires asphalt tickets for the same Material, Line Item, and Ticket Book Number to have the same JMF to be more clear.
- “OTH” type line items created by the Help Desk are now available in Tickets.
- Add "Ticket Book Number already exists" to ticket book error message. We need to simplify the message a bit

## **CONTRACT TRACKING - Review Work Accomplished**

- Modified the window to allow a maximum current quantity of 999,999,999.999.

## **CONTRACT TRACKING - Review Material Prepayments**

- The window has been modified to not check zip codes for addresses that Canadian or out of the United States.
- "OTH" type line items created by the Help Desk are now available in Tickets.
- Contracts let under 2006 standard specifications will now have a maximum invoice percent of 95%, rather than the traditional 90%.

## **CONTRACT TRACKING – Review Pay Adjustments**

- Corrected a problem where RE office personnel could update PARs for contracts in offices outside their division.

## **CONTRACT TRACKING – Audit Materials**

- See Notes under Project Certification – Review Project Certification

## **CONTRACT ESTIMATES - Generate Estimates**

- For Final Estimates, the reviewed indicator on the Contract Times tab is defaulted as checked and is now protected.

## **CONTRACT ESTIMATES - Review Estimates**

- If a Work Completion Date on any Contract Time is set or updated while an Estimate is in progress, the Estimate's status will be set back to Pending Generate and the RE, PE and Estimate's creator will be notified.
- Upgraded Estimate processing such that approvals (with proper pdf image and BSIP interface transactions) and printing can be done from Windows 2000 machines.
- Corrected a problem where printing the Estimate report using the Show Zero Quantities option in certain data conditions did not fully display the totals column.

## **CONTRACT ESTIMATES - Verify Final Quantities**

- The window has been corrected to reset the line item dropdown and default the line item indicator to "All Items" when a contract number is changed.
- The window has been corrected to resolve a problem where certain asphalt tickets could not be verified because the system had stored a different JMF for comparison than what was on the ticket record.
- Added JMF to the find/sort list on items where applicable.

## **DENSITY**

- Field densities have been incorporated into their materials instead of being a separate material. For example, the material type "Aggregate Base Course" now has Density Other Conventional and Nuclear associated with it. On contracts which contain the Material Type "Field Density - Aggregate Base Course", any ABC densities that were run after 9/20/2006 can be entered by selecting either "Aggregate Base Course" >OR< "Field Density - Aggregate Base Course" from the Density Material dropdown.

## **FIELD INSPECTION REPORTS – General**

- Removed Pre-HiCAMS Active and Pre-HiCAMS Complete status contracts from the Contract Selection pop-up window.
- The Find & Sort features have been corrected to match the appropriate fields available across the various reports, and word wrap has been added where applicable and possible.

## **FIELD INSPECTION REPORTS - Review Concrete Pavement**

- The window has been modified to require the value entered in Required Strength to be greater than 0.
- The window now enforces the business rule that requires the selected Concrete Mix Design to be from a ready-mix plant for matches the selected Producer.

## **FIELD INSPECTION REPORTS – Concrete Pipe**

- The dropdown field for Laying Length has been expanded to include a value of 120.

## **FIELD INSPECTION REPORTS – Guardrail**

- Added word wrap for columns Material Type, Material, and Zinc Test Status.

## **FIELD INSPECTION REPORTS – Stay-In-Place**

- The window has been modified to have the dropdown for Gage only contain choices that pertain to the contract's measurement system (i.e., English or Metric). This applies on initial entry and if a report is unauthorized for changes/corrections.

## **FIELD INSPECTION REPORTS – Structural Steel**

- The window has been modified to correct the spelling of the column label "Magnetic Particle"

## **INDEPENDENT ASSURANCE**

- The process has been modified to calculate/display the difference of the averages of the Acceptance and IA sample test results. Previously, the application had been calculating/displaying the average of the absolute value differences between the Acceptance Tests and the IA Test values.

## **SAMPLING – Enter Sample Details**

- Because of MSG Versioning, the Sample Date must now be entered before the Material in order for the correct MSG Material Type to be selected for testing requirements.
- The window has been enhanced to allow test category of acceptance when Sample/Test is required on MSG and a Field Inspection Report - Density type is required (e.g., Aggregate Base Course). This modification was necessary as part of the enhancement to record densities against the actual material records rather than the artificial "Field Density" materials.
- If route type selected is "NONE" or left blank, the user is no longer required to enter a Route Number.

## **SAMPLING – Review Sample Details**

- Separated the Part portion of Sample/Part into its own column so that sorts/finds can be performed on the field.
- Removed the Sample Card and Color from the window. This information is no longer stored on the Minimum Sampling Guide nor displayed on the Sample.

## **PROJECT CERTIFICATION – Review Project Certification**

- Corrected a problem where activating word wrap did not get reset after changing contract numbers.
- The process has been modified to retrieve the proper alternate id data when the MRR Alt ID filter option has been selected and the Alt ID Distribution button is used to display detail information on the alternate id.
- The process has been modified to correct a retrieval problem when the MSG Material Type filter option FIR Required Material Types Only was selected. The correct data is retrieved/displayed in this scenario now.

## **QUERY TOOL – General**

- Queries operate off of the HiCAMS table and field definitions. Many of those tables and field definitions changed with this release, particularly those related to the Minimum Sampling Guide. Please review any saved queries you have to see if they still work. The HiCAMS team attempted to update saved queries so they will work with the new release, but you should review your saved queries to make sure they work as you desire. It is possible that you may have to rebuild your queries using the 6.1 application and save them again.
- Corrected the order of the query tool choices from the Inquiries menu such that they are listed alphabetically.

## **QUERY TOOL – Contract Bill of Materials**

- Added the Letting Date and Check For Materials fields.

## **QUERY TOOL – Master Bill of Materials**

- Added the Minimum Sampling Guide's Criticality for the Material Type to the query tool.

## **STANDARD REPORTS**

- **GENERAL:** All reports that involve materials or material types have been enhanced to work with the new MSG versioning functionality. In many cases, these changes are transparent to the user (i.e., the report parameters and output appear exactly as they did prior to the release). However, some reports may show detail material quantity data broken into sections if the material is associated to different MSG versions over the life of the contract.
- **CONTRACT BILL OF MATERIALS REPORT:** Corrected a problem where the report would fail if a selected line item parameter was deleted prior to executing the report. If the line item parameter is removed, the system will default the value to "All" when executed.
- **CONTRACT PROGRESS REPORT:** The report has been corrected to display the current contractor on defaulted contracts.

- **FIELD INSPECTION REPORTS - GENERAL:** The reports have been corrected to display the current contractor on defaulted contracts.
- **FIR NOTICE OF REJECTION REPORT:** The report has been corrected to display the current contractor on defaulted contracts.
- **SAMPLE STATISTICS REPORT:** This is one report whose output may be different than in the past due to MSG versioning. If sampling frequencies are altered over the life of a contract, the report will break out the sample statistics information according to what data was entered during the time periods where the versions were current.

### **REFERENCES – Concrete Mix Design – Review Mixes**

- The window has been modified to prevent expiration of a mix with a date prior to the current date.
- Mortar content will be set to 27.00 cubic feet whenever the mix contains no aggregate (such as in the case of flowable fill).

### **REFERENCES – Materials**

- When expiring a material, the window will only allow the expiration date to be set to the current date.
- As part of the MSG versioning enhancement, the Material Selection window was modified to be more consistent across the windows that call it (e.g., Sampling, CBOM, Densities, etc.)

### **REFERENCES – Master Bill of Materials**

- The window now allows multiple materials to be deleted in one action by using Shift-Click or Control-Click to highlight multiple rows.
- Added the Minimum Sampling Guide's "Criticality" field for the material's displayed on the Master Bill of Materials.
- The window has been modified such that a conversion factor of 0 is only valid if the conversion factor unknown indicator is set.

### **REFERENCES – Minimum Sampling Guide**

- The Minimum Sampling Guide (MSG) has been redesigned to incorporate version control. This means that when MSG Material Types are changed, the changed version will affect future contracts and not be retroactive to all current contracts as it has been in the past. An example would be if the MSG sample frequency requirements are changed from being 1 sample per 5,000 tons to being 1 sample per 2,000 tons. The new frequency would be applied to all new contracts but would generally remain at the old rate for existing contracts. M&T will also have the ability to correct any errors identified in the electronic MSG and apply those corrections to existing contracts at their discretion, to take effect on data entry for those contracts going forward.
- If Sample/Test is set to "Required" and Field Inspection is set to "Required", the only values that can be chosen for Inspection Types are those that pertain to Densities.
- Old archive records prior to release 6.1 are stored in the MSG database as status "History". These History records are there purely for information purposes and are not attached to any records in the system.

- Added Density Certifications to the MSG table, rather than having them stored in the application code.

## **REFERENCES – Test Formats**

- Prevented access to Specifications for expired test formats.
- Modified the window to default Specifications to “optional” (rather than “required”) when importing a new format.
- The window has been modified to eliminate deletion of specifications altogether. Instead, the user may expire specifications. That way, test results for samples processed against the expired specs can still be referenced correctly.

## **ADMIN – Security**

- The login process has been enhanced to ensure users who change their password prior to expiration will be able to log on, even if they had previously been revoked.

## **TOOLS - Notifications**

- Corrected a problem where notification messages appeared blank after a block of messages were deleted.

## **CLAIMS**

- The Claims and Intents letters have been corrected to display the current contractor on defaulted contracts.

## ***Vendor V3.8***

### **CONTRACTOR DIRECTORY - Review Contractors**

- History records that displayed changes to social security number are now filtered out.
- The Search and Selection windows have been modified to include the new “Other Types” from SAP.

### **TECHNICIANS - Review Class Enrollment**

- The window has been modified to send a notification to the RE, ARE, RE Office Clerk and Division DCE when a student is enrolled in a class. Previously, only the student and the person who enrolled the student received the notification.
- Modified the window to protect access to Fee and Payment information from inquiry only users and in cases where no fee is required.

### **TECHNICIANS - Review Class Maintenance**

- The window has been modified to provide a warning if an expired certification is selected from the drop-down when creating a new class.

## **TECHNICIANS - Technician Certifications**

- The window has been modified to identify the appropriate certifications status for reference in Sampling, Densities, etc. Previously, there were periodic historical certification data instances that caused the system to evaluate the technician's certification status incorrectly.
- Corrected a problem where periodically the certification tab data was protected when it shouldn't have been. The protection now occurs conditionally, row by row rather than the entire tab being protected.

## **STANDARD REPORTS**

- APPROVED PRODUCER/SUPPLIERS: The report has been modified to default and print in portrait style.
- DBE CERTIFICATION RENEWAL: The report has been modified to default the Address Type to "All" rather than "PO".
- DBE DIRECTORY: The report has been modified to default the Address Type to "All" rather than "PO".
- OTHER TYPES: The report has been modified to display the new "Other Types" from SAP.
- PREQUALIFIED CONTRACTORS: The report has been modified to default the Address Type to "All" rather than "PO".
- PREQUALIFIED CONTRACTORS EXPIRATION: The report has been modified to default the Address Type to "All" rather than "PO".

## **TOOLS - Notifications**

- The Review Class Enrollment window has been modified to send a notification to the RE, ARE, RE Office Clerk and Division DCE when a student is enrolled in a class. Previously, only the student and the person who enrolled the student received the notification.