



November 17, 2008

Data Integrity

Colorado
Mountain
College



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Executive Summary

The Data Integrity Project team was charged with addressing data integrity issues related to Datatel. The first step in this process was to determine what we were going to address. We decided on the following Project Statement:

To improve data entry accuracy of the new credit-seeking student Application process as measured by consistency and usability of student records.

Using a Relationship Diagram, we were able to further refine our attention to a manageable focus. We chose to review for accuracy six fields from the Application that are entered into Datatel – Name, DOB, SSN, Address, City/State/Zip and Phone Numbers. We felt input accuracy was critical in these fields as it not only drove what was reported out to the State and to the students' transcripts but also had a direct impact on duplication of student records.

Next, we defined a process for collecting data and a tool to measure accuracy. Through review of a random sample of all Applications put into Datatel for new "Credit" seeking students for the Fall 2008 semester, we were able to come up with an accuracy measurement for these six fields.

Based on a continuous improvement model, we decided that the accuracy of five of these six fields could be improved to 98.5% (Name, SSN, Address, City/State/Zip and Phone Numbers). The DOB field already had an accuracy rate of 98.2%.

Using a Systematic Diagram we came up with recommendations that we felt would improve the initial accuracy percentages. Those recommendations were to support a project already in progress in IT – implementing an online registration form – and proposing that a new Project Team be created that would review existing Application entry training. We believe that through enhancements to this training, once implemented, registration staff will be more knowledgeable about how to improve the data accuracy.

Once these recommendations are implemented, it is our intent to regroup and reassess the accuracy of input in these six fields to validate if, in fact, accuracy percentages have improved.

While developing this report, we learned that the current process for inputting Applications is quite inefficient. Although our focus for this project did not move down the path of providing hard and fast data to substantiate this, we felt strongly that a recommendation to implement "Workflow" should be brought forward for future consideration. On the surface, implementing "Workflow" would appear to not only vastly improve efficiencies but it also ties in with the online Application process and would likely improve data input accuracy.

Another recommendation was to provide a report noting blank fields that registration staff could use to self-check their inputs. If, in fact, the Application contains this information and the registration staff do not input it into Datatel, this report could be beneficial. However, we did not pursue any statistical analysis that would substantiate this error on the part of registration staff.

Background

In 2003, Colorado Mountain College transitioned its admissions/registration system from POISE to Datatel. Datatel is a complete administration system for colleges that includes Registration, Accounts Payable, Accounts Receivable, Human Resources and Person Record systems. To utilize this system, person records (students, vendors, instructors and staff) were merged into the new system. Decisions had to be made, at that time, whether records would be scrubbed or converted to the new system “As Is.” The decision was made to merge them into the new system without scrubbing.

When student records were entered into Datatel through the Application process, it was sometimes difficult to determine whether an existing record matched that student’s Application information or a new record needed to be created. Inaccuracies in data entry and duplication of records were the result of, among other things, the following:

1. Difficulty deciphering the information on the Application;
2. Existing records did not have complete information creating difficulty in determining if an existing record matched the information on the Application;
3. Limited instructions on how to check the database to see if a record already existed causing registration staff to create a new one rather than selecting an existing record; and
4. No instructions on properly entering data, e.g. the appropriate way to enter “hyphenated names”, appropriate address entry based on USPS standards, etc. were developed initially so the same record appeared in different formats causing registration staff to miss a match.

When reviewing our task under the broad heading of “Data Integrity,” as a team we determined that addressing the accuracy and usability of student records would be our focus.

Problem Statement

To improve data entry accuracy of the new credit-seeking student Application process as measured by consistency and usability of student records.

Team Members

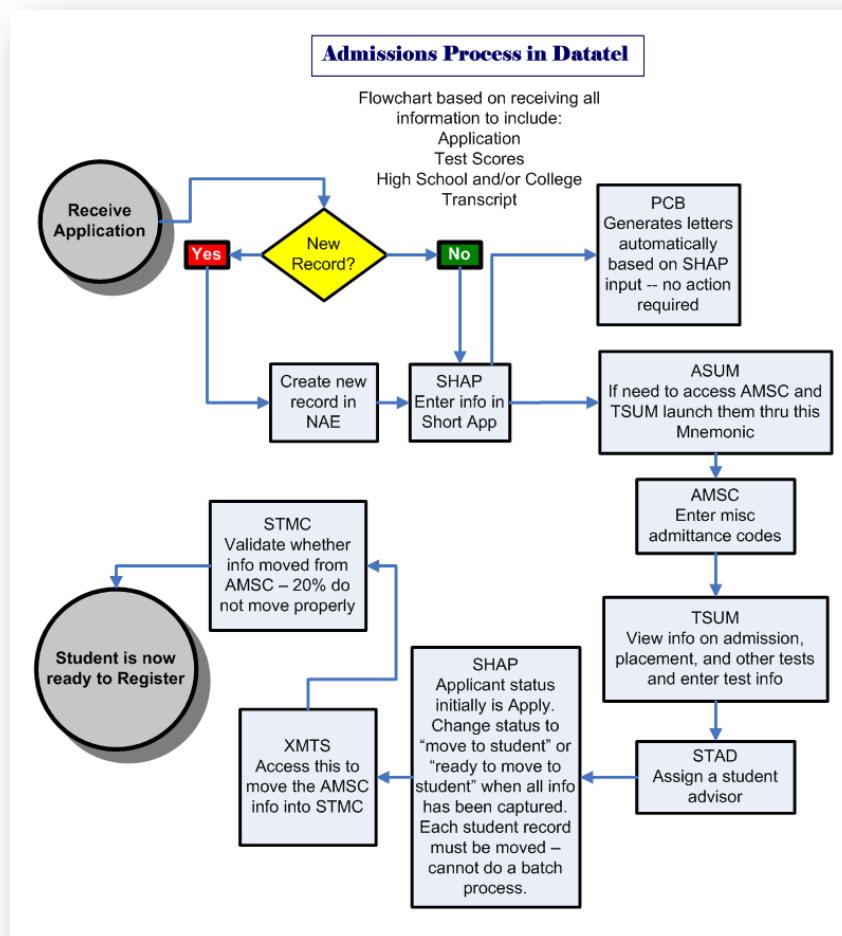
Team Members			
Team Sponsors	Scott Cowdrey Chief Information Officer		Debbie Novak Executive Assistant to the President
Team Leader	Karleen Clark Application Services Manager		
Team Members	Jonathan Hansen Research Analyst – Programmer Assistant	Terresa Herbst Instructional Supervisor	Mary Laing Registration Technician/Enrollment Specialist
	Sue Schmidt LMS Administrator & Technology Trainer	June Silva Registration Technician	Pat Tomasko Assistant Registrar

Understanding the Current Process for Entering Student Records from an Application

With over 200,000 person records in Datatel and many of them being student records, our team determined that we needed to further limit the scope of our attention. We started by acquiring a clearer understanding of the process used in entering student records into Datatel.

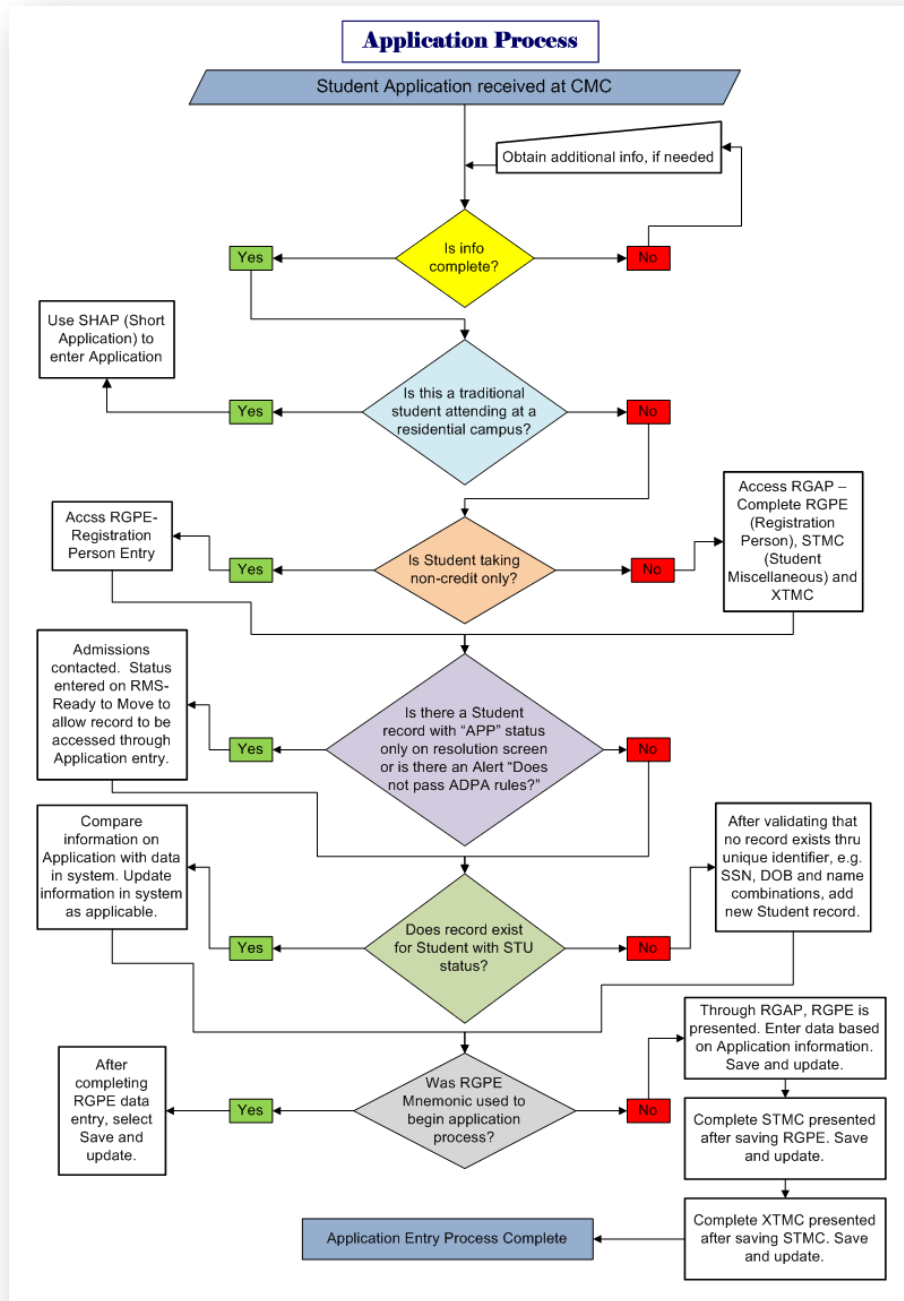
Since we were focusing specifically on “credit seeking” students, we developed the following diagrams to better understand the processes used when entering a student Application.

Potential Students Not Registering When Application is Submitted: Frequently, potential applicants send CMC an Application for admissions. This is received in our Admissions offices – Glenwood Springs (Central Services), Alpine Campus, Spring Valley Campus and Timberline Campus. Because these students may or may not actually register for classes, the information is entered into SHAP in Datatel (Short Application). Although the Application may have complete information in all fields, not all fields on the Application are available through SHAP. If a student registers within a one-year period of completing this Application, it is pulled and all information is entered into Datatel through the RGAP process. If not within a year, the student must again fill out an Application and other screens in Datatel must be accessed to input this additional information.

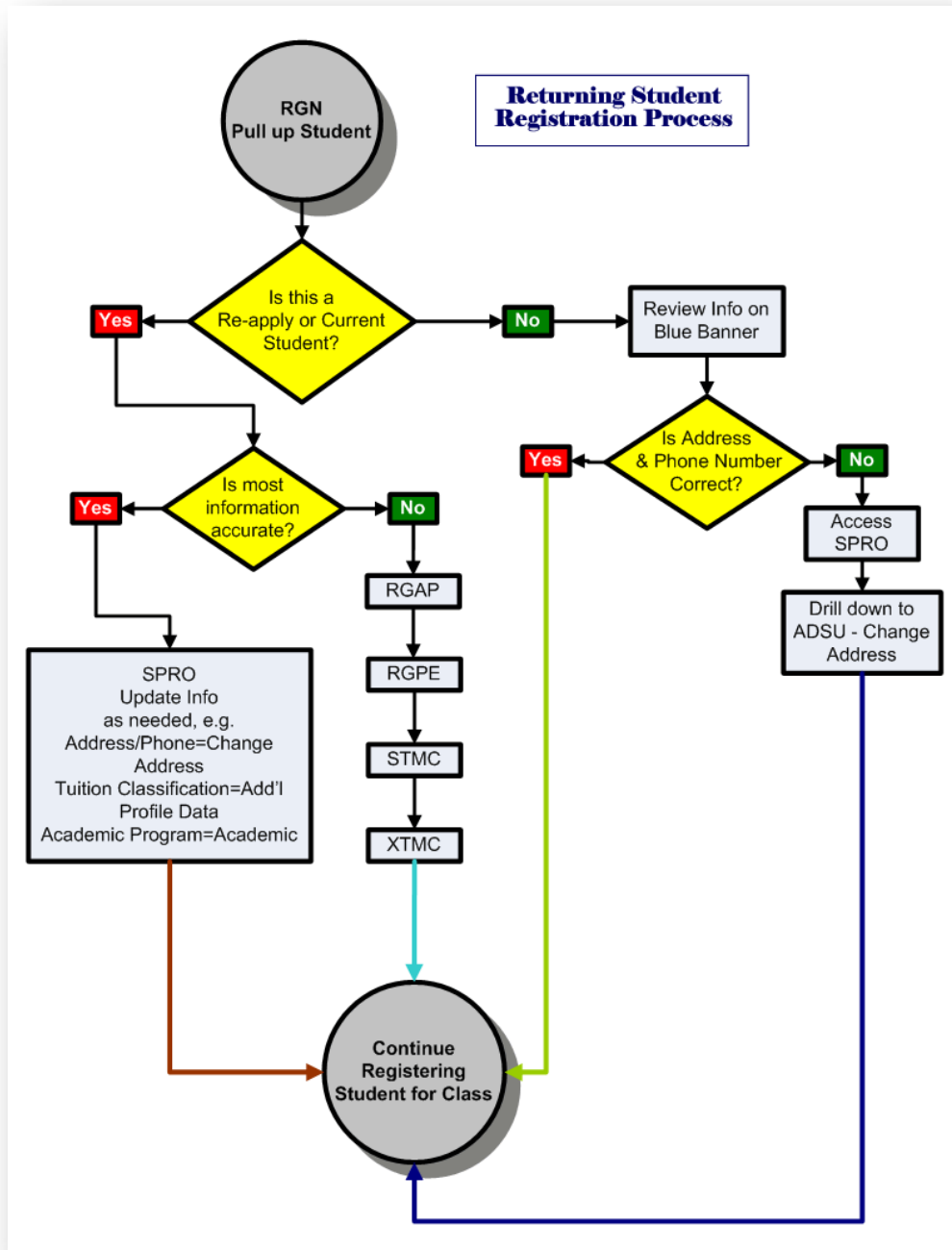


Students Registering When Application is Submitted: The following diagram shows the process used to enter an Application submitted by a Student registering for a class when the Application is submitted.

As additional information, all students (whether new or returning who have not taken classes at CMC within the last 365 days) must re-apply by filling out the Application. Registration staff are charged with validating information, making changes and additions for returning students and insuring that there is no record currently in the system that matches the information on the application for a new student (either as a “conversion” record from POISE to Datatel, maiden name-now married, etc.)



Finally, we looked at the registration process for the returning student since registration staff are also charged with validating the accuracy of information on the Application if the student must re-apply or has provided an updated Application.

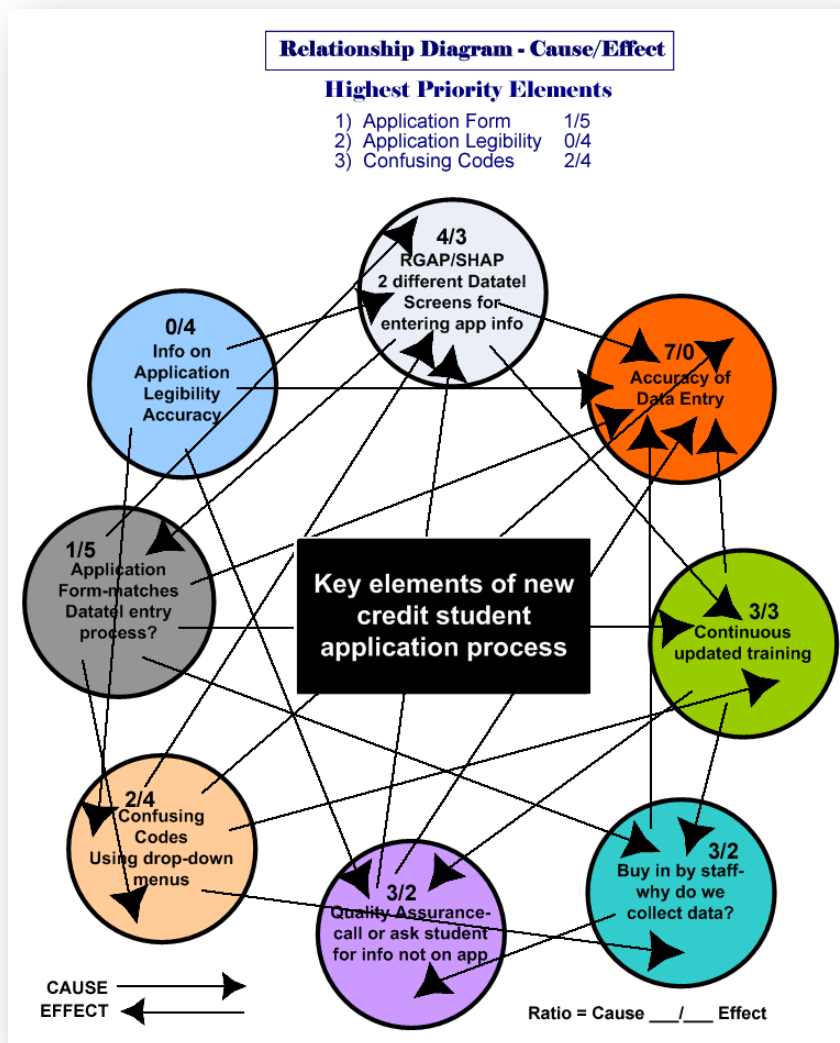


Relationship Diagram

Based on our problem statement - To improve data entry accuracy of the new credit-seeking student Application process as measured by consistency and usability of student records – and our understanding of the process used to enter credit-seeking students Applications into Datatel, we developed a Relationship Diagram. This diagram allowed us to easily identify the “1 acre” that had the greatest impact on improving data entry accuracy. Based on the diagram below, we found three elements:

1. Application Form – Matches Datatel entry process? Cause/Effect – 1/5
2. Information on Application is Legible and Accurate. Cause/Effect – 0/4
3. Confusing Codes – Using drop-down menus. Cause/Effect – 2/4

All three of these elements were directly correlated to the Application form and entry process.



Data Collection Process

The Relationship Diagram allowed us to focus in on the elements that would create improvements in data entry accuracy but we needed to validate the following:

1. Was it really a problem?
2. How would we measure it?
3. How would we insure the data we measured was statistically significant?
4. How can we validate that the recommendations in this report, if implemented, have improved data entry accuracy?

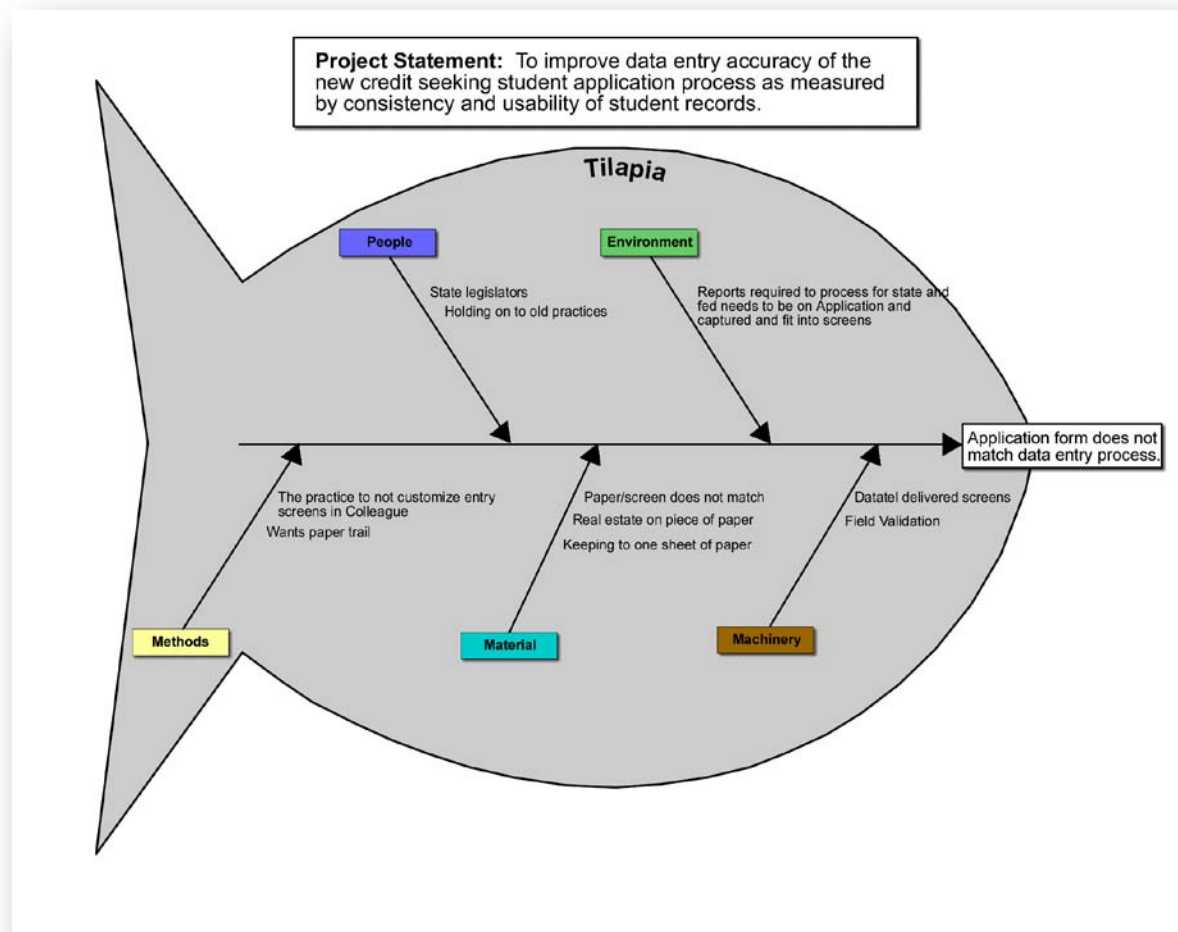
The following was the data collection process used:

1. Although there are many fields input into Datatel from the Application, we agreed to focus on five fields: Name, Date of Birth, Social Security Number, Street Address, and Phone Numbers.
2. These fields were selected because we felt they had the greatest impact on three key data entry errors – duplication of a record that already exist; not entering information present on the Application that could reduce record duplication in the future; and data entry errors, e.g. typos, etc.
3. We agreed to focus on the Fall 2008 semester. A report was run that pulled all “new” credit-seeking students enrolled in classes. A random sample of names were pulled from that list for each CMC site location (residential and commuter).
4. Each site was asked to provide us with the paper Application submitted by the students for those students on the site’s list.
5. An Excel spreadsheet was developed to use when comparing the paper Application to the data entered into Datatel.
6. Several people from our team performed this comparison. They looked for typographical errors, missing information on the Application and information on the Application that was not input into Datatel. Some also noted duplication of records (a new record entered when one already existed).
7. The results were compiled and analyzed and a summary report was developed. This report can be used as a baseline to measure future improvement if our proposed recommendations are approved for implementation.

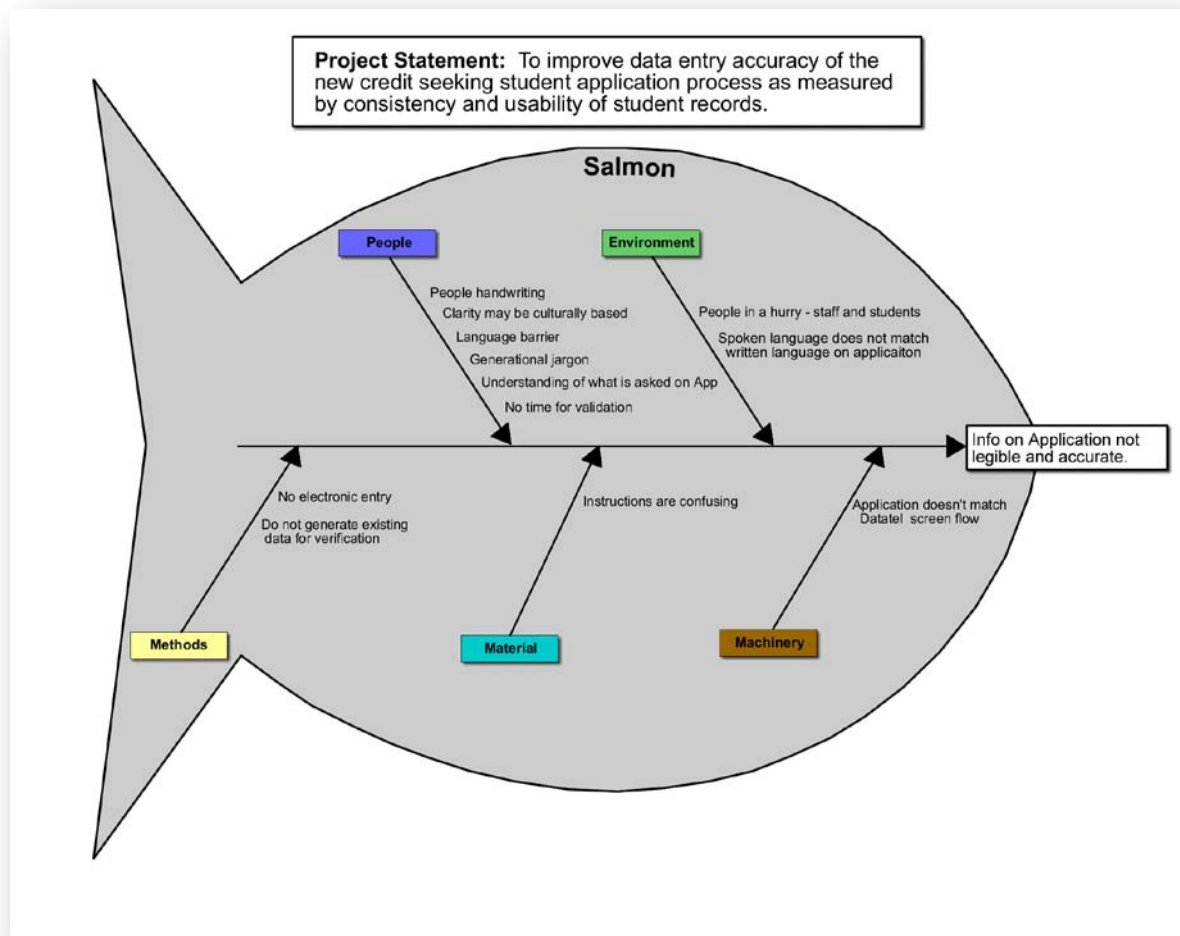
Cause and Effect Diagrams – “FISH” Diagrams

While waiting for the data collection process to be completed, we assumed that our assumption that the Application process was problematic so we generated Cause and Effect Diagrams. Using five components – People, Environment, Methods, Material and Machinery – we brainstormed things that further impacted the elements that impacted data entry accuracy. We felt that this process would help bubble to the top those causes we had the most control over and that could be addressed to improve data entry accuracy.

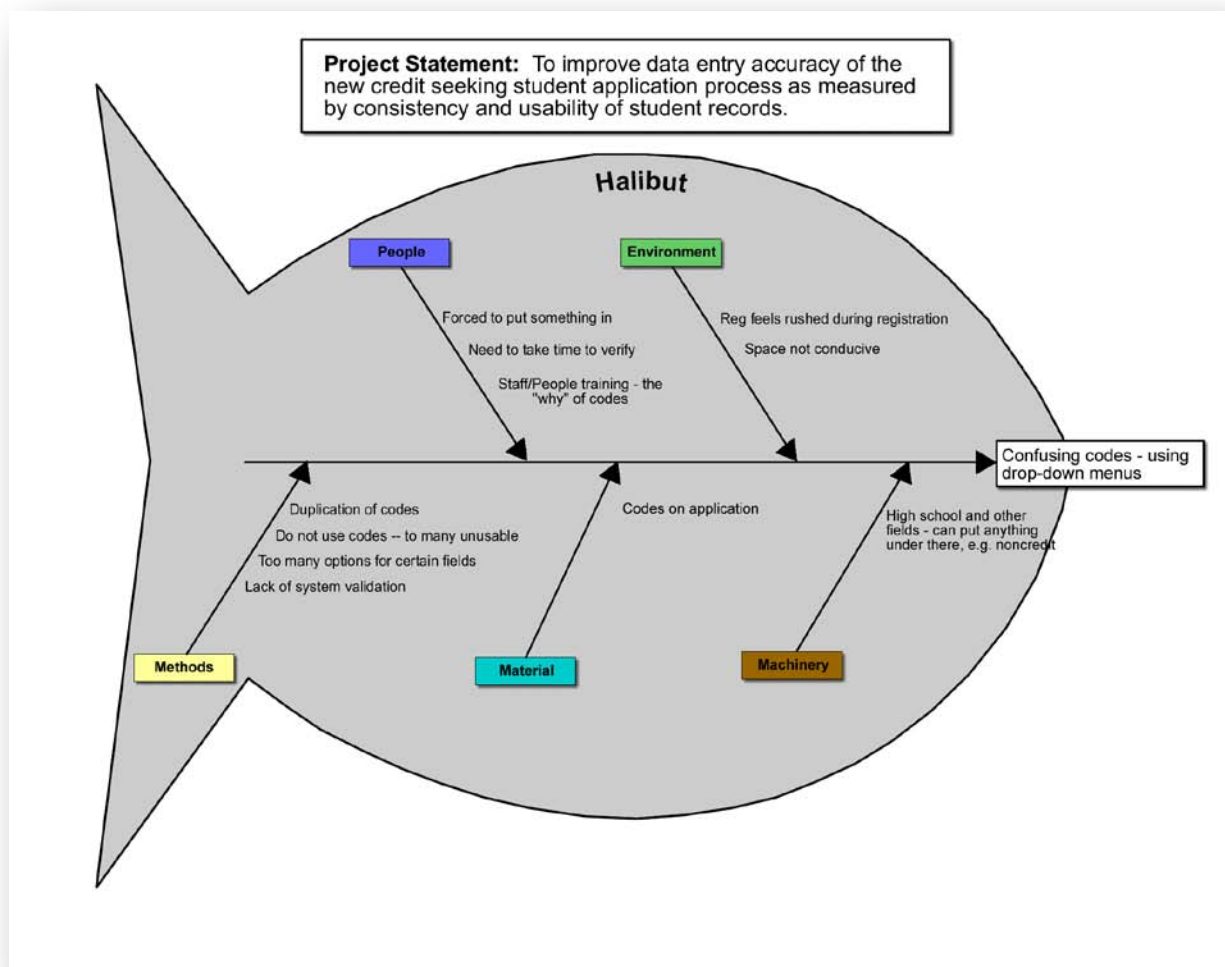
Tilapia – Currently, the fields contained on the Application do not match the flow of the screens used in Datatel to enter this information. This forces registration staff to flip back and forth on the form (front and back) to find the information needed for the next entry field. In addition, two different screens are used to enter an Application. For students applying to CMC but not registering at that point in time, the SHAP (Short Application) screen is used in Datatel to enter Application information. Although the Application may be completely filled out, not all of the fields on the Application are available on the SHAP screen. For those students applying to CMC at the same time they are registering for credit class(es), the RGAP process is used. This process ties three data entry screens together – RGPE, STMC and XTMC. This diagram focuses on the fact that the Application form does not match the Datatel data entry process.



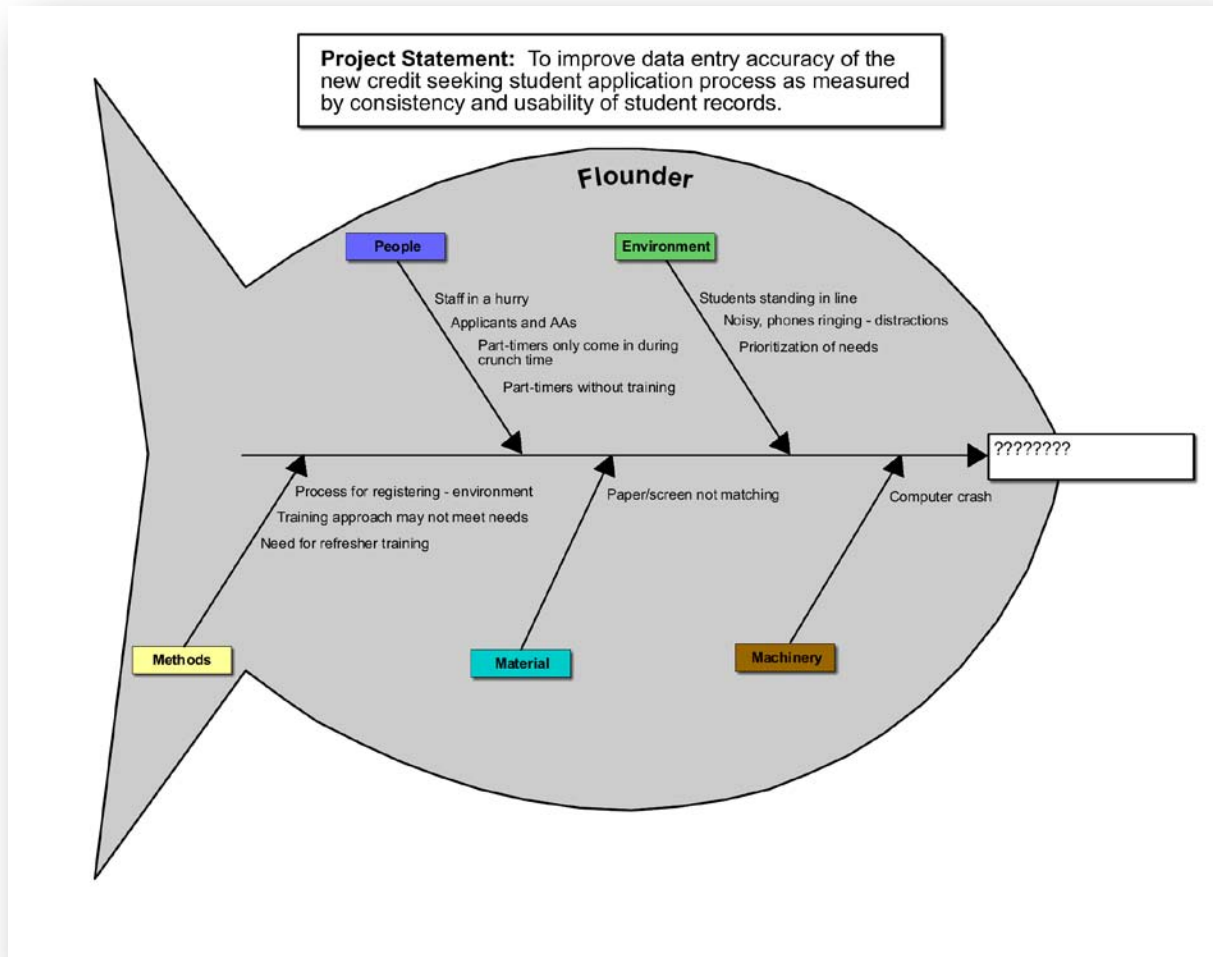
Salmon – Typically, the Application is filled out by hand. As a result, the person entering information into Datatel must decipher what was entered. In addition, currently there is no method to print off the Application, once entered, and hand it back to the applicant to validate accuracy of entry. Nor is there a process to automatically enter an Application submitted electronically into Datatel. This diagram focuses on the legibility and accuracy of information entered on the Application.



Halibut – The screens used to enter Application information may have drop-down menus or registration staff must enter a specific code defined in Datatel. Some of these codes are no longer in use but are still displayed. Other times, there is confusion on what should be entered into the system, e.g. the actual high school a student attended or a code to indicate they attended high school outside of Colorado. This diagram focuses on confusing codes that may be selected leading to inaccuracy in data entry and data that cannot be used for analysis of trends or reporting needs.



“Flounder” Fish – When we began the Cause/Effect process we were confused about what should appear in the “Head” of the fish. So we started to brainstorm the five components. Although this fish will not be used for our proposed solutions, we felt the thoughts captured may be of value to a future group assessing data entry accuracy causes.



Data Collection Results

From a population size of 1,833 of new credit-seeking student applicants for the Fall 2008 semester, a random sample of 230 (12.54%) was selected. Seven (0.4%) of the paper Applications were not located. These records were removed from the sample calculations. The final sample size was 223 (12.16% of the population).

The paper Applications were then matched to the entry in Datatel using the following descriptions to determine data entry accuracy:

Code	Description
A	Application agrees with Datatel
MA	Missing on Application
MD	Missing in Datatel
I	Incorrectly entered into Datatel

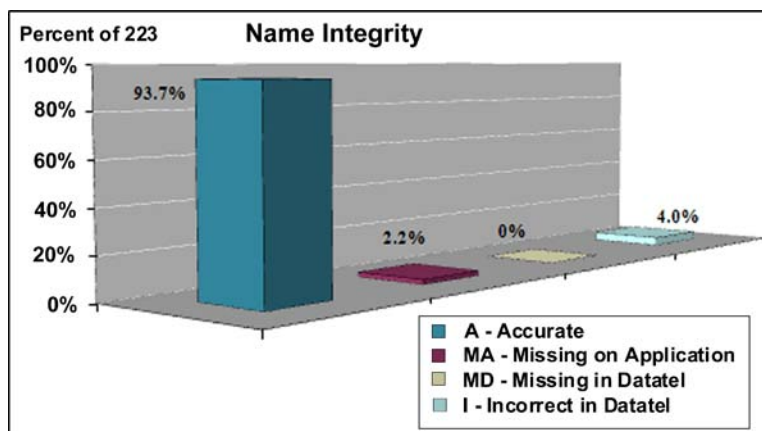
The fields that were compared were as follows:

Field	Description
Name	First, last and middle
DOB	Date of Birth
SSN	Social Security Number
Address	Street Number
City/State/Zip	Applicant Location
Phone #s	Home, Cell, etc.

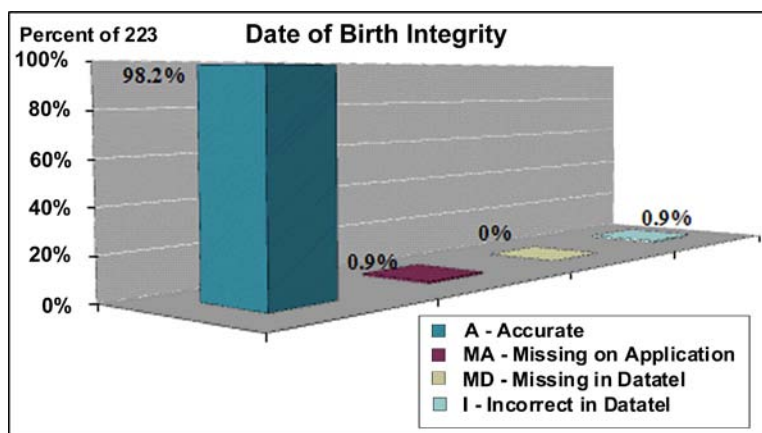
Although not graphically presented, the overall accuracy of Application data entry based on these six fields is 94.92% with a range of 7.2%.

The following results are reported by field:

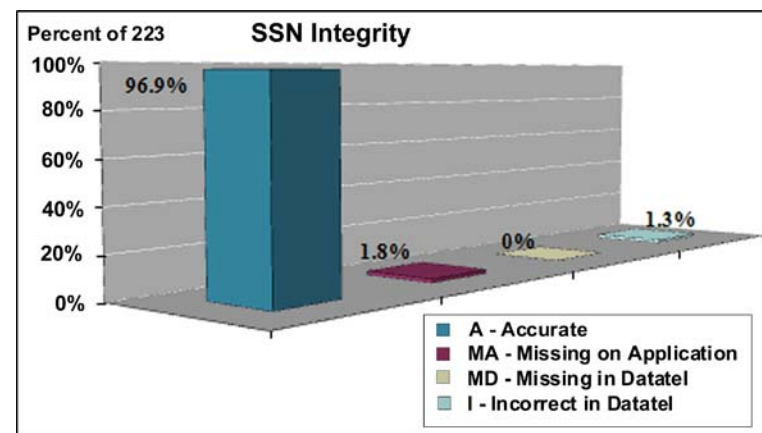
Description	"Name" Field
A - Accurate	93.7%
MA – Missing on Application	02.2%
MD – Missing in Datatel	00.0%
I – Incorrect in Datatel	04.0%



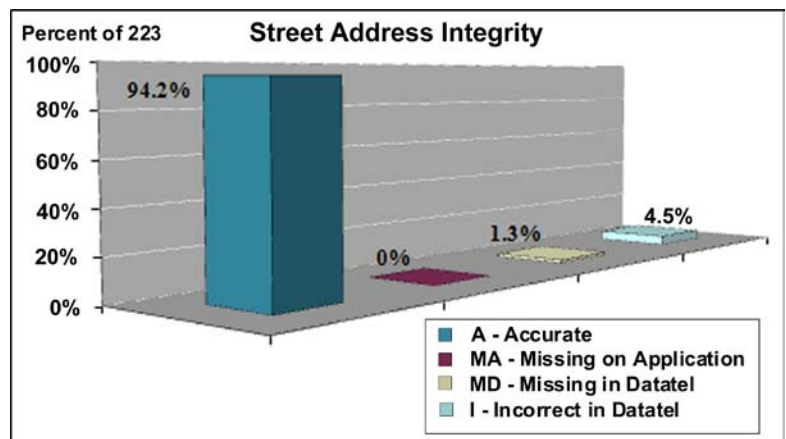
Description	"DOB" Field
A – Accurate	98.2%
MA – Missing on Application	00.9%
MD – Missing in Datatel	00.0%
I – Incorrect in Datatel	00.9%



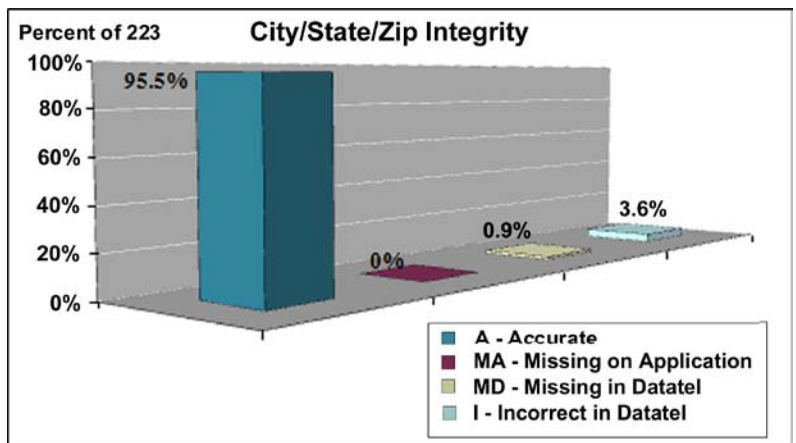
Description	"SSN" Field
A - Accurate	96.9%
MA – Missing on Application	01.8%
MD – Missing in Datatel	00.0%
I – Incorrect in Datatel	01.3%



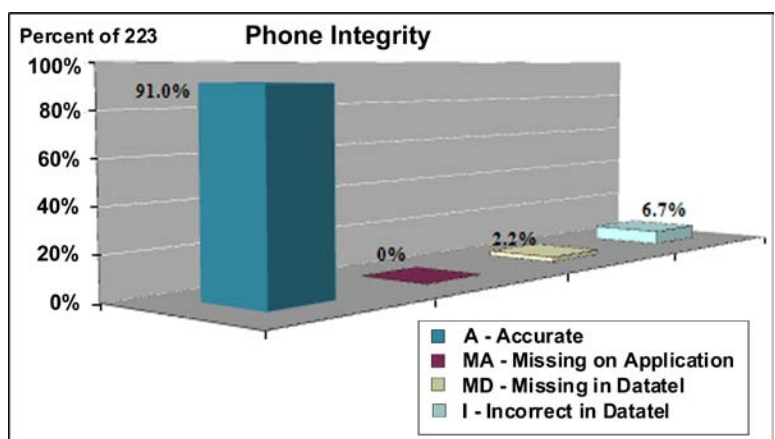
Description	"Street Address" Field
A - Accurate	94.2%
MA – Missing on Application	00.0%
MD – Missing in Datatel	01.3%
I – Incorrect in Datatel	04.5%



Description	"City, State, Zip" Fields
A – Accurate	95.5%
MA – Missing on Application	00.0%
MD – Missing in Datatel	00.9%
I – Incorrect in Datatel	03.6%



Description	"Phone" Fields
A - Accurate	91.0%
MA – Missing on Application	00.0%
MD – Missing in Datatel	02.2%
I – Incorrect in Datatel	06.7%



Improvement Theory – What the Data Tells Us

We wanted to emphasize through this data collection activity that registration staff were extremely professional given the many obstacles they face when inputting an Application. We found they used good judgment in trying to determine whether a record already existed and were very skilled at deciphering hard-to-read handwriting. We wanted to recognize their efforts especially since this input is frequently done in a high-pressure registration environment.

The accuracy was above 90% for all six data categories – Name, DOB, SSN, Street Address, City/State/Zip and Phone. However, on analyzing the data, we found specific trends.

Field	Reasons for Errors
Name Integrity	4% of this data was incorrectly entered due to typographical errors and because the middle name was present on the Application but only the middle initial was entered into Datatel. Middle names are important as they provide another element that can be used to validate whether or not a record already exists in Datatel.
Date of Birth	0.9% of this data was incorrectly entered. Registration staff are doing an excellent job at entering this information.
SSN	1.3% of this data was incorrectly entered due to typographical errors.
Street Address	4.5% of this data was incorrectly entered and 1.3% of the data was on the Application but not entered into Datatel. Typographical errors and entering only one rather than two addresses into Datatel were the main causes for these errors. One reason for typographical errors is that the system may automatically load a potential match that is incorrect and it is not changed.
City/State/Zip	3.6% of this data was incorrectly entered into Datatel. Registration staff are instructed to put the zip code in the “City” field. When they move to the next field, the City/State/Zip is automatically populated based on a USPS table. Some cities may share a zip code, e.g. Marble shares a zip code with Carbondale. Registration staff may miss this and not change it to the proper city when the default is inaccurate. It is important to have the correct city as it used for tuition classification – “In State” versus “In District.”
Phone Numbers	6.7% of this data was incorrectly entered and 2.2% of the data was on the Application but not entered into Datatel. Typographical errors accounted for some of these errors. In some instances, Applications had multiple numbers on them but only one was entered. Codes are associated to these phone numbers, e.g. cell phone, home phone, etc. Other errors occurred when the wrong phone type code was selected.

Continuous Improvement Goals

Based on the data collected, the Data Integrity Team recommends that the error rates on five of the six fields can be improved. We propose the following goals:

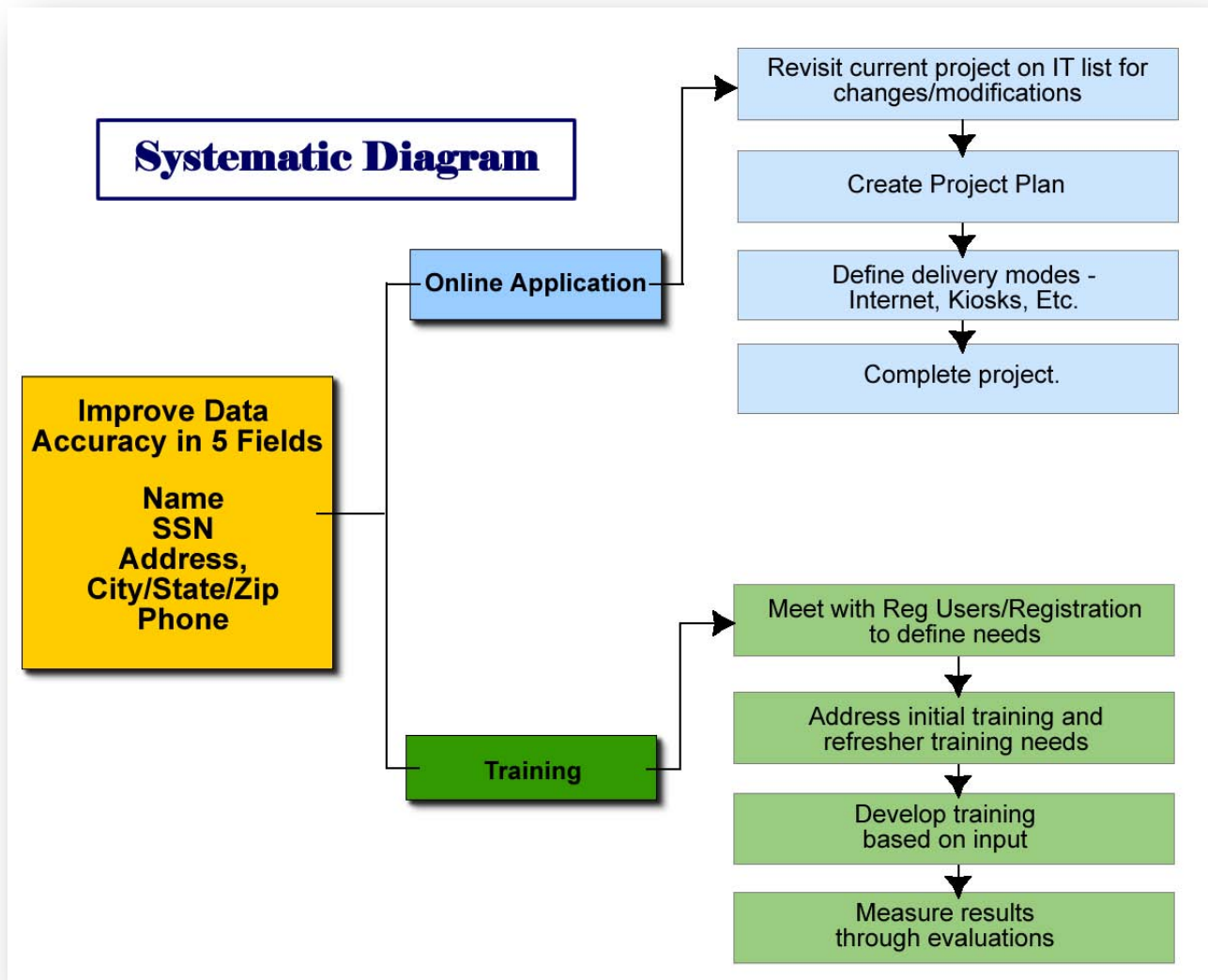
Data Field	Current Accuracy Level	Proposed Accuracy Level
Name Field	93.7%	98.5%
DOB Field	98.2%	No change
SSN Field	96.9%	98.5%
Street Address Field	94.2%	98.5%
City/State/Zip Field	95.5%	98.5%
Phone Numbers Fields	91.0%	98.5%

Systematic Diagram

The work completed above, led us to the creation of a systematic diagram that focused on proposed actions that would improve data entry accuracy of the new credit-seeking student Application process as measured by consistency and usability of student records.

The diagram focuses on two action items:

1. Create an online Application that could be filled out electronically, populate Datatel and allow the person entering the data to print off a copy for validation.
2. Improve the training process by not only determining how the current training delivered could be improved and enhanced but also delivering “just in time” training using other viable training delivery methods.



Recommendations

Recommendation #1: Implement an Online Registration Process

Currently we provide a fill-in Application online but it is not integrated into the Datatel system. There are several channels that could be used for improving this online Application. One would be to capture the data entered on the online Application and automate its input into Datatel. Once automated, KIOSKS already in place could be used by students at residential and commuter sites to fill in an Application electronically as well as filling in the document from other locations. A print capability could be incorporated into the online process to allow students to provide registration staff a printed copy to work from if the Application were being entered during registration. Providing multiple formats of the Application, including Applications in other languages, would help students understand what information should be placed in specific fields.

Cost/Benefit Analysis: Our group assumes that the cost/benefit analysis has been completed since the Steering Committee (CITL) has approved this project.

Current Status of Project: This project is already on the CAT (Colleague Advisory Team) list as a #1 item. Bill Sommers is the project lead. He has been working with several vendors and will be submitting an RFP in the near future. The project will be outsourced as much as possible so there will be limited IT involvement. One of IT's staff may create the online form and write the interface to Colleague to load the data.

Recommendation #2: Enhance Training

Currently Application entry training is provided once per month (the third Tuesday of each month) at Central Services. Participants in this training, combined with Registration and other training, may be enrolled in up to two full days of training. These attendees may be overwhelmed by the volume of material being covered during these sessions. During the registration period, part-time help is frequently brought in to assist and may receive limited training.

The traditional method of training should be reviewed to determine if there are ways it can be improved. Just-in-time training delivery methods should also be considered to address the needs of staff who cannot get to the monthly training in a timely fashion and those who come in on an inconsistent basis to help during times of increased volume, e.g. during registration.

We propose that a new Project Team be appointed to evaluate the needs of those receiving Application entry training, make recommendations for improvement and be charged with implementing the recommendations. We believe the group should include the Functional Leader, a trainer skilled in assessing and evaluating training who is also able to propose new and innovative methods of delivery and registration staff who are directly involved in inputting Applications. Feedback should be sought from registration staff who have already attended the training and are now inputting Applications and

new registration staff who have not yet been through training. Evaluation of the training outcomes should be developed as part of the training recommendations.

Current Datatel Training Schedule and Information on Application/Registration Training – Datatel training occurs the first Tuesday and Wednesday of each month based on the following schedule:

Day and Time	Topic
Tuesday, 8 AM to Noon	Tuition Classification Registration
Tuesday, 1 PM to 4 PM	Understanding Student Accounts Entering Miscellaneous Charges Processing Cash Receipts
Wednesday, 8 AM to Noon	Course Section Add
Wednesday, 1 PM to 5 PM	Scheduling Invoices Creating PO's, Vouchers, etc. Budget Reports

New employees are required to attend the training appropriate to their position requirements before a Datatel log in is created. Current employees may attend for refresher purposes (however, we don't think this is understood).

All of the above have online tutorials created and available via Enews (enews.coloradomtn.edu) .

In the registration area, there is also a hard copy manual for entering a new student, getting them registered, etc. This is in the process of being updated. During the monthly training, the trainer demonstrates entering a new student Application using the RGAP linked screens, registering them in classes and dropping. She also demonstrates miscellaneous items. If there is time, attendees can practice entering new students.

Any updates, changes, etc. to registration are announced via the REGUSERS listserv mail list. All new employees who attend registration training are added to this list.

Cost/Benefit Analysis: The new Project Team would be responsible for developing a cost/benefit analysis as part of its project scope.

Current Status of Training Enhancements: Registration staff are currently working on a PowerPoint presentation that provides just-in-time information to those inputting Applications. Another group will shortly be developing a Blackboard course on entering Course Sections, including Captivate flash videos allowing practice simulations that can be used for initial and refresher learning. These projects could be reviewed and potentially incorporated into the work done by the new Project Team.

The Relationship Between AQIP Quality Criteria and Our Project

The Relationship Between AQIP Quality Criteria and Our Project

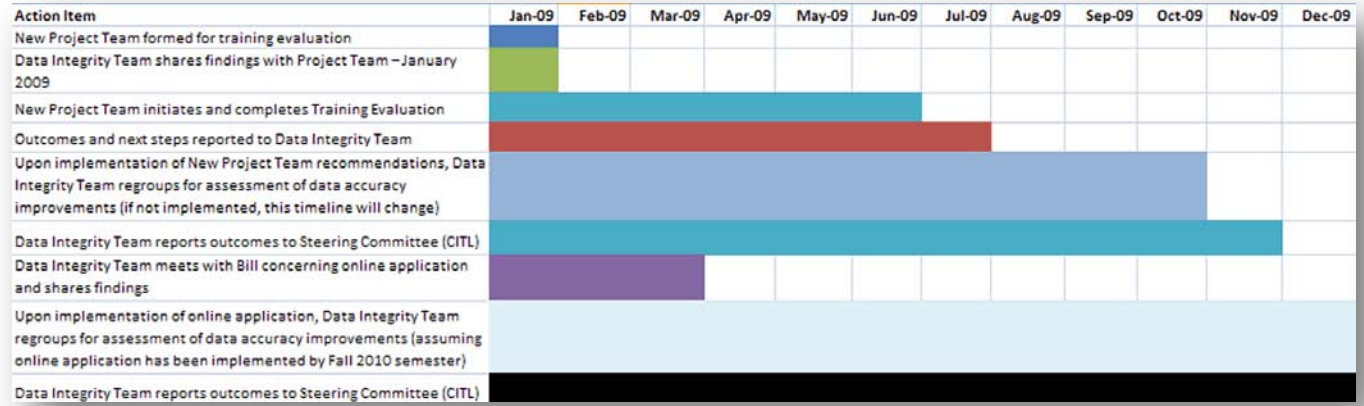
Missing or unusable data becomes a continuing obstacle in identification and examination of information. The application of the AQIP categories is no exception. If our college and the systems and processes of our college are to be identified, analyzed, and measured to accurately report where we fail, when we fail, and where we succeed, then data integrity is our functional foundation. As data integrity degrades so does our eyesight; opacity increases and blurred vision remains. We can be content with seeing mirages or keep a vigilant eye on data integrity and see what's real.

The below AQIP quality criteria chart gives examples of how AQIP Categories relate to our project.

AQIP Quality Criteria	Project Relationship
Measuring Effectiveness	<p>The implementation of an online Application will drive performance improvements by putting the responsibility and accountability into the hands of the student who has the greatest ability to be accurate in inputting his/her personal information.</p> <p>Assessing training needs will also drive performance improvements by clarifying expectations for those entering Application information, improving their knowledge of Datatel in relationship to how to enter data accurately and why we need it entered in a certain format.</p>

GANTT Chart for Our Project

Gantt Chart January 2009 through December 2009



Gantt Chart January 2010 through November 2010



Proposed Recommendations for Future Project Teams Dealing with Data Integrity

We narrowed our project to data integrity as it related to the six entry fields noted above. Through the process of evaluating data and processes, several recommendations bubbled to the top that we believe would improve efficiency when entering Application data and would very likely improve data accuracy. Since our evidence was anecdotal and not targeted on our “one” acre, our recommendations focused on that goal. However, we did not want the concepts generated below to be lost. As a result, we decided to include in this report additional proposals that other groups may want to carry forward through the next iterations of the Project Team process.

Proposed Recommendation #1: Implement Workflow

The Workflow Management Solution will allow staff to automate the flow of the Application entry process. Based on pre-defined rules, the workflow will control the order actions are completed in, notify individuals to complete tasks already started, pass tasks between staff members and exit hooks can further validate data entry.

While we have stated that accuracy of the Application data is good, we still feel that the staff could use assistance with field validation. The Workflow exit hooks could check to ensure that a code selected is appropriate based on other data already entered. For example, a student with an ethnicity of Non-resident alien would require a citizenship not equal to United States or null. The exit hook in this instance would throw an error message and require the data entry staff to correct the citizenship field before moving on. This type of field validation would ease the staff’s stress on the front lines during high volume registration periods and allow the college to catch inconsistencies in data characteristics across an application. These errors typically are not measured or caught because the data entered does in fact match the data provided by the student.

An additional benefit to the implementation of Workflow for the Application Entry process is that the Application Services team will be trained and could move forward with the use of the tool for other business processes for the college.

Reasons Why Implementing Workflow is Beneficial:

1. **Workflow Provides a Single Point of Entry** (currently data is entered in both SHAP and RGAP) depending on student status – registering or applying without registering).

The recommendation to pursue an on-line Application and the future recommendation to create a Workflow process in Datatel that matches the Application entry fields tie in together. Currently, there are two entry points for entering Application information; one that the Admissions Counselors use for the traditional student (SHAP) and one that the Registration Staff use for the non-traditional student (RGAP). When the online Application process is implemented, there must be a single entry point. Workflow also requires a single entry point. Thus, implementing Workflow in conjunction with the online Application process seems to make sense. This would

simplify data entry for both the admissions counselors and registration staff, as well, providing just one screen to go to for data entry.

2. **Workflow Can Be Used in Other Areas of CMC** (Human Resources, Course Section Add, etc.)

Once staff have used Workflow, they would be able to apply that knowledge to a number of different functions within Datatel.

3. **Workflow Will Eliminate the Need to Flip Back and Forth Through the Application Form, Reducing Data Entry Error and Time, Thus Making the Admissions Entry Process More Efficient**

Several team members reviewed admissions Applications, some of whom do not work with the Application form on a daily basis. It became apparent how cumbersome the Application is when entering the data into Datatel. The questions on the Application are in a different order than the screens in Datatel (see Appendices 3 and 4 – pages 30-33).

Registration staff must search the Application form for a variety of information, which should not be necessary. As an example, on the Application, student gender is in the first line and student ethnicity is in the middle of the Application. However in Datatel, gender and ethnicity are on the same line. Another example is the “Disabilities” question is on the front of the Application, CO Driver’s License is on the back page but both questions are on STMC screen in Datatel. Registration staff must flip between the pages while remaining on the same screen in Datatel to enter that information.

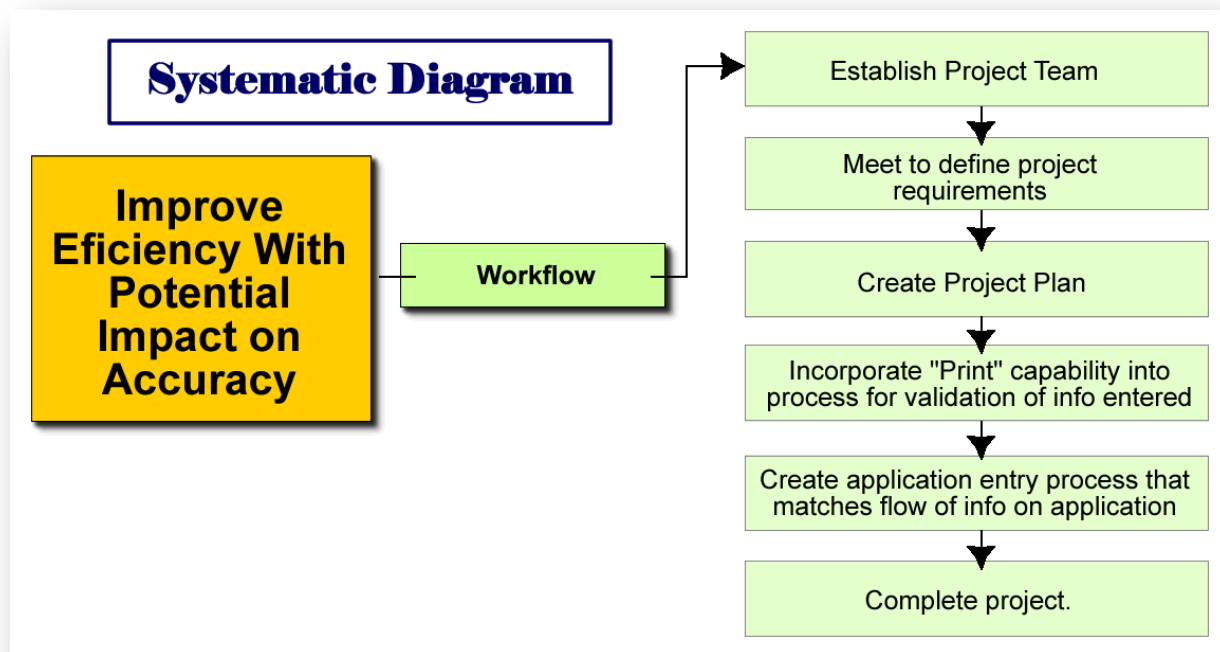
One staff member who does not frequently enter Application information timed herself. It took her 11 minutes to input the Application. She attributes much of this to the need to flip back and forth on the Application form to find information to input on a single screen in Datatel.

Workflow would allow us to create an entry process that matches the flow of information on the Application. This would greatly improve efficiency and perhaps could improve data integrity because registration staff would be following one logical data entry system.

Rough Estimate of Costs to Implement Workflow:

Description	Cost	Quantity	Total
AS Staff Training – online webinar	\$1,350.00	5	\$6,750
Process map consultant	\$10,000	1	\$10,000
Programming mentoring	\$5,000	1	\$5,000
AS Staff programming time cost		80 hrs	\$2,400
Functional Area time		20 hrs	\$400
<u>TOTAL</u>			<u>\$24,550</u>

Systematic Diagram:

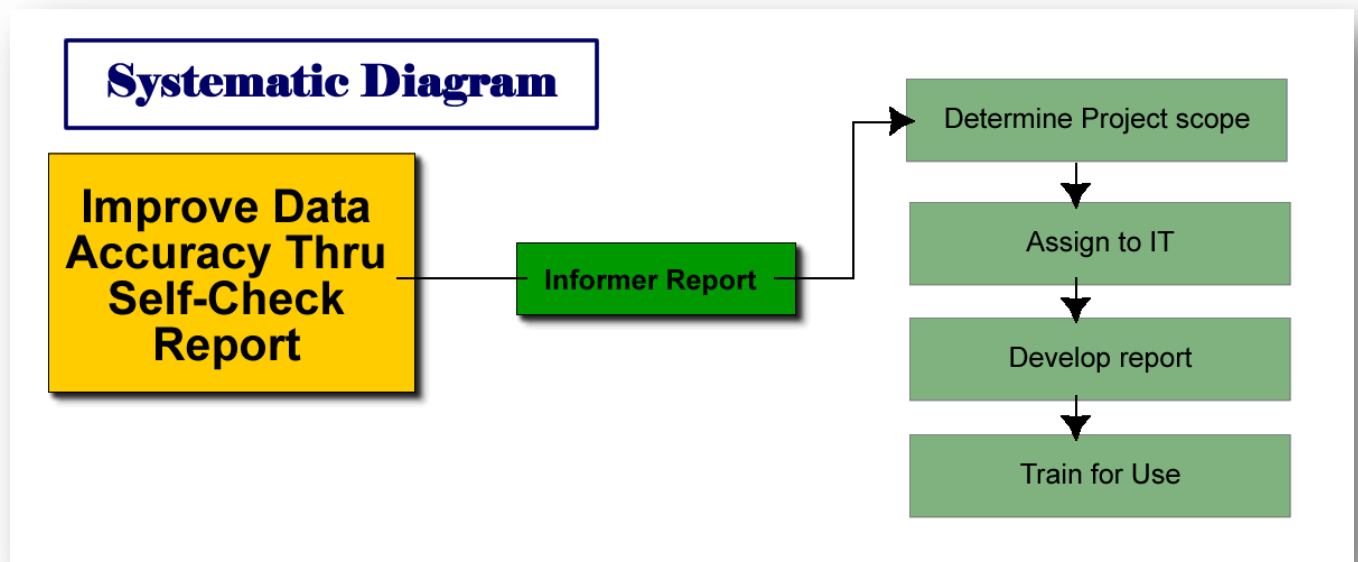


Proposed Recommendation #2: Informer Report

Currently there is an Informer report that indicates, by user, who added information and how many records from a given field are missing. This report is not specific to the Application process but instead is specific to curriculum. If a similar report was developed for the Application entry process, registration staff would have the opportunity to self-assess if they missed inputting information that was on an Application. This self-assessment would be done by comparing the report to the paper Application to determine if information on the Application was or was not entered into Datatel.

We did not evaluate all fields of the Application for this project so we have no evidence that “information existed on the form that was not input into Datatel.” However, if a future team investigates the remaining fields on the Application and finds this to be an issue, a report of this nature would be beneficial and would provide the person entering the data a tool for self-assessment and correction. It would allow registration staff to clearly see, outside of Datatel, fields missing data. This would enable them to evaluate whether this is the result of missing information on the paper Application or if they missed entering the information into Datatel.

As the number of missing data fields increase, our ability as college to do effective reporting diminishes. In cases where data is rarely populated (citizenship and high school graduation date) into a field, reporting becomes impossible when the data it relies upon is unusable. Again, we can only correct this if, in fact, the student provides it on the Application, and it is not input into Datatel.



Appendix 1

These are the instructions provided to Registration staff when looking for an existing record in the system to avoid entering a new record when one already exists.

Look-up Help

Avoid duplicate record in Colleague; **exhaust** all searching mechanisms before adding anyone (student, vendor, staff) to any Datatel Module.

At the Person LookUp box, use the following workflow. Note: lookups are not case sensitive.

1. Enter Person ID number if provided.
 - Then check Name for match
 - Then check (DOB) date of birth for match
 - Then check (SSN) for match
2. Enter (SSN) social security number if provided, *do not use hyphens in data entry*.
 - Then check Name for match
 - Then check (DOB) date of birth for match
3. Name screen such as **(RGPE)(SHAP)(NAE):** Chambers Delaney Smith-Jones, Diane Maria
 - Person with multiple last names, enter full string with underscores between each name (Chambers_Delaney_Smith-Jones)
 - Last name, partial or complete Last name searches (Cha, D or Chambers, D)
 - Then check (DOB) date of birth for match
 - Then check Name for match
 - Then check (SSN) for match
 - Previous name (ie: maiden...), partial last or complete name searches
 - Then check (DOB) date of birth for match
 - Then check Name for match
 - Then check (SSN) for match
 - Hyphenated names – no spaces between hyphen and letters (Smith-Jones, not Smith – Jones)
 - Apostrophes – no spaces between apostrophe and letters (O’Hara not O’ Hara)
 - Other punctuation and name formats – no spaces between delimiter and letters (DeHaan not De Haan; Mc; Mac; O’; del)
 - Sound index check is done by adding a / in front of an assumed spelling of a name to get all names that sound like it. EX /Wan to get Juan (should return all names that sound like Wan but with various spellings).
4. Other helpful keys for data entry (beyond lookup)
 - Use the “=” sign in front of name or street to have literal name appear.
 - Enter a person zip code in city field automatically populates city, state, zip and county for all Colorado addresses
5. When you discover a duplicate Record.
 - If created accidentally call Functional area & IT immediately
 - Take screen shots of lookup resolution screen of all duplicates

Appendix 2

These are the instructions provided to Registration staff for entering addresses into the system. These instructions were last updated November 2006.

Address Standards – Best Practice Sheet and workflow

Student and Vendor address entry is an important step in the data entry process. This information is used to notify student or vendor of important information (*class cancellation, grades, refund checks, payments, event mailings etc..*) It is important that accurate information is entered. Please use the following address standards for completing address entry.

Entering a new, change or additional address for a person or vendor into Datatel system. (Datatel will allow 30 characters per line) Multiple lines are available for lengthy address. Do not use punctuation other than a hyphen.

- Primary Address entered into the NAE, RGPE or SHAP screen becomes the Home/Permanent address default type. Pref Res = Yes and Mail Pref = Yes
 - Do not put PO Box and street addresses in same address (2nd-line). Create two different addresses.
 - Always drill down into ADSU and ADR screens and fill in all fields.
1. One Address: Current (Physical/Street) Where they live & get mail
Type = Home/Permanent Mail Pref = Yes Pref Res = Yes
 2. Two Addresses: (Physical/Street) Where they live
 - a. Type = Home/ Permanent Mail Pref = No Pref Res = Yes
 - b. Type = Local (Box #) Where they receive mail Mail Pref = Yes Pref Res = Yes
 3. Business Address:
Contact Purchasing
 - Save History is “yes” unless a transposition or misspelling is corrected in the address.
 - Do not enter anything into the modifier field. (*used only for vendor/business address types*)
 - Save time filling out each of the CSZ and County field when populating Zip Code first in the city field. The auto populate table completes info from an annually IT updated table.
 - Country Code is populated for only foreign countries. **Never** put “US” in country field. US Territories (Puerto Rico = PR, Guam = GU, Virgin Islands = VI, Canal Zone = CZ) all have State codes and should be populated with the state code.
 - Student campus box entered with alpha code for each campus and box # (ex: A101=Alpine Campus, S101=Spring Valley Campus, T101=Timberline Campus.)

Appendix 3

Color coded Application noting where information is entered in Datatel (Mnemonics represent different Datatel screens) when a Student submits an Application to CMC and is not currently registering for a class.

Page 1

SHAP → NAE *SHAP* *AMSC*

Colorado Mountain College

Application for Admission

PLEASE PRINT AND CHECK BOXES AS APPROPRIATE

Colorado Mountain College does not discriminate on the basis of race, color, national origin, sex, age, or disability in admission or access to, or treatment or employment in its educational programs or activities. Inquiries concerning Title VI, Title IX, and Section 504 may be referred to the CMC Director of Human Resources.

OFFICE USE ONLY
 Catalog # _____ Location _____ Section Classification _____ Staff Signature _____ Date _____
☐ TD ☐ TS ☐ OS

PERSONAL INFORMATION
 Please indicate the year and term you wish to enroll: ☐ Summer ☐ Fall ☐ Spring Year _____

SOCIAL SECURITY NUMBER _____ OR PASS NUMBER _____
 LAST NAME _____ FIRST NAME _____ MIDDLE NAME _____
 SEX: ☐ MALE ☐ FEMALE

ADDRESS INFORMATION
 STREET ADDRESS _____ CITY _____ STATE _____ ZIP CODE _____
 MAILING ADDRESS (IF DIFFERENT FROM STREET ADDRESS) _____ CITY _____ STATE _____ ZIP CODE _____
 COUNTRY OF PERMANENT RESIDENCE _____ STATE OF PERMANENT RESIDENCE _____

PHONE & EMAIL INFORMATION
 HOME PHONE (AREA CODE) _____ (COUNTRY CODE) _____ WORK PHONE _____ CELL PHONE _____
 EMAIL ADDRESS _____

GENERAL INFORMATION
 NAME OF LAST HIGH SCHOOL ATTENDING _____ CITY _____ STATE _____

Type of Secondary Diploma: *DRILL DOWN TO LASU*
☐ High School Diploma Year Received: _____
☐ G.E.D.: Year Received: _____
☐ Currently enrolled in High School or Home Schooled Expected Graduation Date (12/2008): _____
☐ Non-Graduate

Ethnic Origin:
☐ Non-Resident Alien ☐ Asian or Pacific Islander
☐ Black Non-Hispanic ☐ Hispanic
☐ American Indian or Alaskan Native ☐ White Non-Hispanic
☐ Other

ENROLLMENT DATA
 While at CMC, which best describes your program of study/major?
☐ Associate of Arts (AA) in: _____
☐ Associate of Science (AS) in: _____
☐ AAS Degree (Career & Technical) in: _____
☐ Certificate (Career & Technical) in: _____
☐ Associate of General Studies in: _____
☐ For occupational upgrade, but not for degree/certificate
☐ Undeclared
 Please indicate planned length of study at CMC:
☐ 1 Semester ☐ 1 Year ☐ 2 Years ☐ More than 2 years

Which best describes your current status?
☐ New student, first college attendance
☐ Re-entering former CMC student
☐ Transfer, attended another college:
☐ Will transfer credit into CMC
☐ Will not transfer credit into CMC

Do you plan to transfer to another institution?
☐ No, I do not plan to transfer
☐ Yes, to a 4 year school after CMC graduation
☐ Yes, to a 4 year school before CMC graduation
☐ Yes, to a 2 year school after CMC graduation
☐ Yes, to a 2 yr school before CMC graduation

Please check your main educational goals:
☐ Learn skills to get better jobs
☐ Learn skills to advance in current job
☐ Increase personal income
☐ Improve skills in reading, writing, math
☐ Personal interest
☐ Maintain license
☐ Other

Which CMC site/campus will you attend? _____

Which best describes the level of education you have completed? (Choose One)
☐ Less than High School ☐ High School Graduate/GED ☐ Certificate ☐ Associate Degree ☐ Bachelor's Degree ☐ Masters Degree ☐ Doctorate

Have your parents attended college? ☐ Mother ☐ Father ☐ Both ☐ Neither ☐ Unknown
 Have your parents earned a baccalaureate (4-year) degree? ☐ Mother ☐ Father ☐ Both ☐ Neither ☐ Unknown
 Would you like information about support services available for students with disabilities? ☐ Yes ☐ No

Do you consider yourself economically disadvantaged? ☐ Yes ☐ No
 Do you consider yourself academically disadvantaged? ☐ Yes ☐ No
 Is your primary language other than English? ☐ Yes ☐ No Language: _____
 Do you consider yourself a displaced homemaker? ☐ Yes ☐ No
 Do you consider yourself a single parent? ☐ Yes ☐ No

SIGNATURE(S) REQUIRED
 Please complete and sign reverse side.

SELECTIVE SERVICE

Information on Selective Service registration status must be provided in order to comply with Colorado State Law. Individuals providing false information are subject to penalty of law. Most males age 18 – 25 are required to register with the Selective Service.

Are you required to register with the Selective Service? ☐ Yes ☒ No

If yes, are you registered? ☐ Yes ☒ No

VETERAN/MILITARY SERVICE

- ☐ None
☐ 1 Veteran or Dependent Eligible for VA Educational Benefits
☐ 2 Veteran Not Eligible for VA Educational Benefits
☐ 3 Active Duty Veteran
☐ 4 Active Duty Military

CITIZENSHIP

Are you a U.S. Citizen? ☐ Yes ☒ No
 If no, what nation?

Visa Type:

OR AUTHORIZED EMPLOYER
 (attach a photocopy - front & back)

OR ALIEN REGISTRATION NUMBER
 (attach a photocopy - front & back)

OR Alien: If under 23 years of age, you must supply copy of Parents Alien Registration or citizenship documents.

☐ Check this box, if the following statement is correct.

I have no official classification with the Department of Immigration and Customs Enforcement

TUITION CLASSIFICATION (has no effect on admission to the College)

Are you claiming to be a Colorado Resident for tuition purposes? ☐ Yes ☒ No

Current Age: _____. If you are under the age of 23, information concerning your parent or court appointed guardian (attach photocopy of court orders) is required.

If you are claiming to be a Colorado Resident, completion of all questions in this section is required to determine eligibility for In-State or In-District Tuition. State of Colorado Title 23, Article 7, 101 to 107, C.R.S. 1973, as amended, defines the information required.

	Student Information	OR	Parent/Guardian Information
Dates of continuous physical presence in Colorado (Month/Day/Year)	____/____/____ to Present		____/____/____ to Present
Dates of continuous physical presence in CMC District (Month/Day/Year)	____/____/____ to Present		____/____/____ to Present
List last 2 years Colorado income taxes have been filed	____/____/____		____/____/____
Date current Colorado Driver's License or Colorado ID was issued (Month/Year) & Number	____/____/____		____/____/____
If current Colorado Driver's License was issued less than two years ago, in which state was the previous license issued?	____/____/____		____/____/____
List last 2 years of Colorado Motor Vehicle registration (Month/Year)	____/____/____		____/____/____
License Plate Number	____/____/____		____/____/____
Date of Colorado Voter Registration (Month/Year)	____/____/____		____/____/____
Parent's Name If Parent Info Provided	____/____/____		
Dates of extended absences from Colorado during the last 2 years (Month/Day/Year) (gone for more than one month at a time)	____/____/____ to ____/____/____		____/____/____ to ____/____/____
Have you ever been married? Date of that marriage (Month/Day/Year) (Answer only if you are under 23 at the time of application)	____/____/____		____/____/____
List the last 2 years of employment	EMPLOYER _____ EMPLOYER _____ EMPLOYER _____		EMPLOYER _____ EMPLOYER _____ EMPLOYER _____

COLLEGE EDUCATION

Other names used at higher education institutions: _____

List of colleges attended or attending (do not include CMC):

COLLEGE NAME	CLYP	SMALL	DATE OF ATTENDANCE	DEGREE EARNED
COLLEGE NAME	CLYP	SMALL	DATE OF ATTENDANCE	DEGREE EARNED

If you have earned college credits at another institution that you plan to transfer to CMC or use as a prerequisite for a CMC class or to gain exemption from a required placement test, please request that your official transcripts be sent to CMC from each institution attended. If you have attended more than two institutions, attach another sheet with the additional information.

SIGNATURE

I certify, under penalty of perjury, that the information presented on this form is true and complete. If asked by an authorized official, I agree to give proof of the information I have provided. If the student is under 18 years of age at the time the application is signed, the student's parent or court appointed guardian must sign this application.

SIGNATURE	DATE
PARENT/GUARDIAN SIGNATURE	DATE

Don't forget to sign and date this form!

Appendix 4

Color coded Application noting where information is entered in Datatel (Mnemonics represent different Datatel screens) when a Student submits an Application at the same time they are registering for classes. Typically this Application is presented at Registration.

Page 1

applicant using RGAP process

RGPE **STMC**
NAE **XTMC**

Colorado Mountain College

Application for Admission

PLEASE PRINT AND CHECK BOXES AS APPROPRIATE

Colorado Mountain College does not discriminate on the basis of race, color, national origin, sex, age, or disability in admission or access to, or treatment or employment in its educational programs or activities. Inquiries concerning Title VI, Title IX, and Section 504 may be referred to the CMC Director of Human Resources.

OFFICE USE ONLY

College ID # _____ Location _____ Further Classification: ☐ TD ☐ TS ☐ OS _____ Staff Signature _____ Date _____

PERSONAL INFORMATION

Please indicate the year and term you wish to enroll: ☐ Summer ☐ Fall ☐ Spring Year _____

SOCIAL SECURITY NUMBER _____ OR PASS ID NUMBER _____ BIRTH DATE _____ SEX: ☐ MALE ☐ FEMALE

LAST NAME _____ FIRST NAME _____ MIDDLE NAME _____

ADDRESS INFORMATION

SCHOOL ADDRESS: *drill down from RGPE to ADSC/NAE* CITY _____ STATE _____ ZIP CODE _____

MAILING ADDRESS (if different from school address): CITY _____ STATE _____ ZIP CODE _____

COUNTRY OF PERMANENT RESIDENCE: _____ COUNTRY OF PERMANENT RESIDENCE: _____

PHONE & EMAIL INFORMATION

HOME PHONE (AREA CODE) _____ CLASSIC (970) _____ HOME (970) _____ CELL (970) _____

drill down to NAE - no pg. 51.p

GENERAL INFORMATION

NAME OF LAST HIGH SCHOOL ATTENDED: _____ CITY _____ STATE _____

Type of Secondary Diploma: ☐ High School Diploma: Year Received: (_____) ☐ G.E.D.: Year Received: (_____) ☐ Currently enrolled in High School or Home Schooled. Expected Graduation Date (12/2008): (_____) ☐ Non-Graduate

Ethnic Origin: ☐ Non-Resident Alien ☐ Asian or Pacific Islander ☐ Black Non-Hispanic ☐ Hispanic ☐ American Indian or Alaskan Native ☐ White Non-Hispanic ☐ Other

ENROLLMENT DATA

While at CMC, which best describes your program of study/major?

☐ Associate of Arts (AA) in: _____
☐ Associate of Science (AS) in: _____
☐ AAS Degree (Career & Technical) in: _____
☐ Certificate (Career & Technical) in: _____
☐ Associate of General Studies in: _____
☐ For occupational upgrade, but not for degrees/certificate Underlined

Please indicate planned length of study at CMC:
☐ 1 Semester ☐ 1 Year ☐ 2 Years ☐ More than 2 years

Which CMC site/campus will you attend? _____

Which best describes your current status?

☐ New student, first college attended
☐ Re-entering former CMC student

Transfer, attended another college?
☐ Yes, will transfer credit into CMC
☐ No, will not transfer credit into CMC

Do you plan to transfer to another institution?

☐ none. No, I do not plan to transfer
☐ yes. Yes, to a 4 year school after CMC graduation
☐ yes. Yes, to a 4 year school before CMC graduation
☐ yes. Yes, to a 2 year school after CMC graduation
☐ yes. Yes, to a 2 yr school before CMC graduation

Please check your main educational goals:

☐ Learn skills to get better jobs
☐ Learn skills to advance in current job
☐ Increase personal income
☐ Improve skills in reading, writing, math
☐ Personal interest
☐ Maintain license
☐ Other

Which best describes the level of education you have completed? (Choose One)

☐ Less than High School ☐ High School Graduate/GED ☐ Certificate ☐ Associate Degree ☐ Bachelor's Degree ☐ Masters Degree ☐ Doctorate

Have your parents attended college? ☐ Mother ☐ Father ☐ Both ☐ Neither ☐ Unknown

Have your parents earned a baccalaureate (4-year) degree? ☐ Mother ☐ Father ☐ Both ☐ Neither ☐ Unknown

Would you like information about support services available for students with disabilities? ☐ Yes ☐ No

Do you consider yourself economically disadvantaged? ☐ Yes ☐ No

Do you consider yourself academically disadvantaged? ☐ Yes ☐ No

Is your primary language other than English? ☐ Yes ☐ No Language: _____

Do you consider yourself a displaced homemaker? ☐ Yes ☐ No

Do you consider yourself a single parent? ☐ Yes ☐ No

SIGNATURE(S) REQUIRED

Please complete and sign reverse side.

SELECTIVE SERVICE

Information on Selective Service registration status must be provided in order to comply with Colorado State Law. Individuals providing false information are subject to penalty of law. Most males age 18 – 25 are required to register with the Selective Service.

Are you required to register with the Selective Service? ☐ Yes ☒ No

If yes, are you registered? ☒ Yes ☐ No

VETERAN/MILITARY SERVICE

- None
- 1 Veteran or Dependent Eligible for VA Educational Benefits
- 2 Veteran Not Eligible for VA Educational Benefits
- 3 Active Duty Veteran
- 4 Active Duty Military

CITIZENSHIP

Are you a U.S. Citizen? ☒ Yes ☐ No

If no, what nation?

Visa Type:

DAILY AUTHORIZED STAY EXPENSE:
(attach a photocopy – front & back)

OR ALIEN REGISTRATION NUMBER:
(attach a photocopy – front & back)

OR Note: If under 23 years of age, you must supply copy of Parents Alien Registration or citizenship documents.

☐ Check this box, if the following statement is correct.

I have no official classification with the Department of Immigration and Customs Enforcement

TUITION CLASSIFICATION (has no effect on admission to the College)

Are you claiming to be a Colorado Resident for tuition purposes? ☐ Yes ☒ No

Current Age _____. If you are under the age of 23, information concerning your parent or court appointed guardian (attach photocopy of court orders) is required. If you are claiming to be a Colorado Resident, completion of all questions in this section is required to determine eligibility for In-State or In-District Tuition. State of Colorado Title 23, Article 7, 101 to 107, C.R.S.1973, as amended, defines the information required.

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Dates of continuous physical presence in Colorado (Month Day Year)	_____ to Present		_____ to Present
Dates of continuous physical presence in CMC District (Month Day Year)	_____ to Present		_____ to Present
List last 2 years Colorado income taxes have been filed	_____		_____
Date current Colorado Driver's License or Colorado ID was issued (Month Year) & Number	_____ # _____		_____ # _____
If current Colorado Driver's License was issued less than two years ago, in which state was the previous license issued?	_____		_____
List last 2 years of Colorado Motor Vehicle registration (Month Year)	_____		_____
License Plate Number	# _____		# _____
Date of Colorado Voter Registration (Month Year)	_____		_____
Parent's Name If Parent Info Provided	_____		
Dates of extended absences from Colorado during the last 2 years (Month Day Year) (gone for more than one month at a time)	_____ to _____		_____ to _____
Have you ever been married? Date of that marriage (Month Day Year) (Answer only if you are under 23 at the time of application)	_____		_____
List the last 2 years of employment	EMPLOYER _____ CITY _____ STATE _____ FROM: TO:		EMPLOYER _____ CITY _____ STATE _____ FROM: TO:
	EMPLOYER _____ CITY _____ STATE _____ FROM: TO:		EMPLOYER _____ CITY _____ STATE _____ FROM: TO:

COLLEGE EDUCATION

Other names used at higher education institutions: _____

List of colleges attended or attending (do not include CMC):

COLLEGE NAME	CITY	STATE	DATE OF ATTENDANCE	DEGREE EARNED
COLLEGE NAME	CITY	STATE	DATE OF ATTENDANCE	DEGREE EARNED

If you have earned college credits at another institution that you plan to transfer to CMC or use as a prerequisite for a CMC class or to gain exemption from a required placement test, please request that your official transcripts be sent to CMC from each institution attended. If you have attended more than two institutions, attach another sheet with the additional information.

SIGNATURE

I certify, under penalty of perjury, that the information presented on this form is true and complete. If asked by an authorized official, I agree to give proof of the information I have provided. If the student is under 18 years of age at the time the application is signed, the student's parent or court appointed guardian must sign this application.

SIGNATURE:	DATE:
PARENT/COURT APPOINTED GUARDIAN SIGNATURE:	DATE:

Don't forget to sign and date this form!

Steering Committee Feedback

Team name and number: ***Data Integrity Project Team***

Date: November 11, 2008 Sponsors: Scott Cowdrey and Debbie Novak

Idea for Improvement	Support
1. Implement online Application	
2. Evaluate existing training for enhancements and additions	

Team Feedback Meeting

Date: _____

Sponsor: _____

Leader: _____