DataCapture Transcript Processing

Getting Started Guide

ImageNow Version: 6.7.x

perceptivesoftware

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What is ImageNow DataCapture?

ImageNow DataCapture is part of a custom solution that automates data entry from post-secondary transcripts. It uses OCR, ICR, and OMR technologies to identify a transcript and extract data such as the transferring institution, student social security number, name, birth date, major, and GPA. After DataCapture processes a transcript, it stores the transcript in ImageNow where it becomes a document and is easily shared and viewed throughout your institution. The data extracted from a transcript is stored in ImageNow and is available to share with your student information system. By automating the transcript data entry process, DataCapture allows your institution to:

- Capture incoming paper and electronic transcripts and link them to student data records.

- Decrease the time required for evaluation and data entry of transfer credits.

- Enhance service to transfer students.

- Ensure that transcripts become part of complete student files.

- Boost employee productivity and satisfaction.

- Reduce costs associated with data entry and storage.

Solution components

This section describes each component of the solution. Your DataCapture transcript processing solution includes the components that best fit your institution's processing needs, and might not require all of the listed components.

DataCapture components

All DataCapture transcript processing solutions include at least one DataCapture Processing Server and one DataCapture Verification Station. Your solution might also include tools from the Forms Designer Station.

DataCapture Processing Server. Performs recognition and extracts data from captured transcripts. It identifies a transcript by matching it to a pre-defined template specified in the capture profile.

DataCapture Verification Station. Assists you through the character repair and validation of extracted transcript data with three verification modes: group digit verification, context verification of text field contents, and validation rule checking. Not all processes require the use of Verification Station or all three of its modes. For details about using Verification Station, refer to Appendix B in this document.

DataCapture Forms Designer Station. Provides the ability for an administrator to create and modify custom forms and templates. DataCapture uses templates to extract data from transcripts. Your Perceptive Software implementation team offers ready-to-use templates for most college and university transcripts. However, an administrator can modify the provided templates or create new templates using the following, optional DataCapture Forms Designer Station tools:

- **Form Designer**. Allows an administrator to design custom input forms, such as questionnaires, that your institution can use instead of standard or commercial forms. DataCapture can process pages generated by Form Designer easily because it already knows the field locations and types from the file.

- **Template Designer**. Provides the primary tool for an administrator to prepare templates that DataCapture Processing Server uses to extract data from transcripts. Using Template Designer, an administrator establishes reference points on a transcript and the configuration of other information

required by DataCapture Processing Server to pinpoint the locations of data that your institution wants to capture.

- **Layout Designer**. Provides features, such as flexible positioning of data fields, that are not available in Template Designer. Only more complex templates require the use of Layout Designer.

Additional solution components

In addition to the DataCapture components described earlier, all DataCapture transcript processing solutions include CaptureNow and the Transcript Form.

CaptureNow. Enables you to capture a batch of transcripts into ImageNow based on the settings defined in a capture profile. After you capture a batch of transcripts, you can view the DataCapture states displayed in the batch grid to identify the progress of the batch through each step of the DataCapture process. For additional details, refer to the batch grid steps and states provided in Appendix A at the end of this document.

Transcript Form. Displays transcript data extracted by DataCapture. When viewing a transcript in viewer, the Transcript Form displays in the Forms pane where you can verify and modify the extracted data. The Transcript Form is part of the ImageNow eForms suite. Depending on your solution's configuration, you can map each field to a custom property that is assigned to the transcript, making each field searchable in your ImageNow system.

Solution roles

ImageNow provides the ability to distribute the steps required to process a transcript among multiple roles in your institution. For example, one person might capture a batch of transcripts, another person might quality assure each transcript in the batch, and another person might verify the captured transcript data. ImageNow users take one or more of the following roles when using the DataCapture transcript processing solution:

- **Administrator**. Configures the solution with the Perceptive Software implementation team. The administrator also maintains the solution. If your solution includes tools from Forms Designer Station, the administrator also creates templates and forms. In ImageNow, the administrator must be assigned the owner or manager role, or have management privileges. For configuration details, refer to the *DataCapture Transcript Processing Installation and Setup Guide*.

- **Batch capturer**. Captures transcripts into ImageNow. To capture a batch of transcripts, you must have at least the Global Capture Batch Mode privilege.

- **Batch QA inspector**. Performs quality assurance for each transcript. To perform batch QA, you must use ImageNow Client and have at least the Global Batch QA privilege. The same person might perform both the capture and QA roles. Not all processes require the QA step, and the administrator might configure the capture profile to bypass quality assurance.

- **Data verifier**. Verifies the extracted transcript data. This person might use DataCapture Verification Station to verify and validate data before DataCapture exports it. A data verifier also verifies extracted transcript data in the Transcript Form.

Process a transcript: Overview procedure

This section provides an overview of how to process a transcript using the DataCapture transcript solution.

1. **Begin at the point of Capture**. Scan or import a batch of transcripts into ImageNow. After you capture a batch of transcripts, ImageNow Client automatically displays the batch in the batch grid.

2. **Optional. Quality assure each transcript**. Open the batch and inspect each transcript to make sure that all elements are legible and that each page is properly oriented. Depending on your processes, the administrator might configure your solution to bypass this step.

3. **DataCapture Processing Server runs automatically**. DataCapture Processing Server selects a template and performs data extraction. In the batch grid, the state assigned to the batch of transcripts changes to "DC Read."

   Note If the administrator configures the solution to bypass verification, you perform data verification using the Transcript Form.

4. **Optional. Perform verification and validation on extracted data using DataCapture Verification Station**. From a computer with Verification Station installed, open the batch grid in ImageNow Client and double-click the batch with the "DC Read Completed" state. This prompts DataCapture Verifier to open in Group verification mode. You use shortcut keys to accept (press the ENTER key), or reject (enter the correct data). Following Group verification, you might need to process some characters in Context verification mode, which uses the same keys. Following the verification stages, you might need to correct data that DataCapture collected against a set of predefined rules using the validation process.

5. **ImageNow automatically stores the extracted data and transcript**. DataCapture Processing Server creates a data output file and stores it as a subobject in ImageNow. ImageNow stores the transcript as a document and, depending on how your solution is configured, assigns extracted transcript data as document property values and to fields in the Transcript Form.

6. **Perform verification on extracted data using the Transcript Form**. The Transcript Form displays data extracted from the transcript. To view the Transcript Form, open the transcript in the specified workflow queue and select the Forms pane. Make any needed edits to the data in the Transcript Form or to property values displayed in the Properties pane. Then route the transcript according to your processes.

7. **Optional. DataCapture automatically shares data with your student information system**. Depending on how the administrator configures your solution, DataCapture shares output files that contain the extracted data with your student information system. Your student information system then updates a student's file with the data that DataCapture extracted from the student's transcript.

Process a transcript: Detailed procedure

This section provides detailed steps to process a transcript using the DataCapture transcript solution.

Capture a transcript

You can capture a transcript at your desktop or at a multifunction device. To capture a transcript from your desktop, you must use ImageNow Client. To capture a transcript from a multifunction device, the device must have an ImageNow Interact Client installed. When capturing transcripts, keep the following guidelines in mind:

- Capture the original transcript at 300 DPI.

- Avoid capturing photocopies or faxed transcripts.

- Do not allow stamps or annotations on the original transcripts.

- Use a scanner set to automatically correct alignment, brightness, contrast, and clarity, such as a device with Kofax VRS software.

Depending on the configuration of your solution, you can capture supplementary pages to accompany each transcript. ImageNow appends the supplementary pages to a successfully processed transcript as additional pages. Appending these pages keeps related information in the same ImageNow document. Perform the steps in the appropriate subsection to capture a transcript and any supplementary pages.

Capture a transcript at your desktop

To import or scan a transcript at your desktop using ImageNow Client, perform the following steps.

1. On the **ImageNow** toolbar, click the **Capture** arrow and select a capture profile.
2. Depending on your capture source, perform one of the following actions:
   - Scan the transcript with a scanner.
   - Import the transcript from the **File Capture** dialog box.

Capture a transcript at a multifunction device

To scan a transcript at a multifunction device using ImageNow Interact for Lexmark, ImageNow Interact for Xerox, or ImageNow Interact for eCopy, perform the following steps.

1. At the multifunction device, place the pages in the feeder and, on the multifunction device screen, press the **Send to ImageNow** button.
2. Select a capture profile.
3. Select a workflow queue.
4. Press **Scan**.

Perform quality assurance

Some processes require you to inspect each transcript to make sure that all elements are legible and that each page is properly oriented. If your institution's processes include performing quality assurance on captured transcripts, perform the following steps using ImageNow Client.

1. On the **ImageNow** toolbar, click the arrow next to the **Batches** 🗐 button and select **Ready for QA**.

2. In the grid, double-click the batch of transcripts you want to quality assure. You must select a batch with the following properties: **Scan** step, **Completed** state, and **DC** type.

3. In **ImageNow Viewer**, inspect each transcript page and, in the **Actions** pane, under **Batch Processing**, click one of the following options:

   - **Mark page as OK**. Shows you the next transcript page in the batch to quality assure.

   - **Rescan this page**. Rescans a transcript page that does not meet your quality standards. Locate the original transcript and, using the appropriate capture profile, scan or import the transcript into ImageNow.

   - **Commit this batch**. Submits the batch of transcripts without reviewing all transcript pages.

   - **Suspend this batch**. Enables you to review another batch and return to this batch later.

   - **Delete this page**. Removes the transcript page from ImageNow.

Start DataCapture Processing Server

After you complete the capture and quality assurance steps, DataCapture Processing Server automatically begins to process the transcripts. It identifies a template for a transcript and extracts key data. You can view its progress in the batch grid in ImageNow Client. In the batch grid, click the **Refresh** 🔃 button to view the most current step and state. For details about the steps and states associated with DataCapture, refer to Appendix A at the end of this document.

Note When processing a large number of transcripts, it might take several minutes for the Step and State columns in the batch grid to update.

Verify extracted data

Depending on your institution's processes, you verify extracted transcript data using one or both of the following components:

DataCapture Verification Station. Guides you through verifying each character that requires verification. It also guides you through the validation process based on rules your administrator defines. You use DataCapture Verification Station before ImageNow stores the transcript as an ImageNow document. You must use a computer with both DataCapture Verification Station and ImageNow Client installed.

Transcript Form. Enables you to view and manually edit the extracted transcript data displayed in an electronic form that is associated with the transcript. You access the Transcript Form after ImageNow stores the transcript as an ImageNow document.

Verify data using DataCapture Verification Station

To verify the extracted transcript data using DataCapture Verification Station, perform the following steps. For additional details about DataCapture Verification Station, refer to Appendix B.

1. In the batch grid, double-click the batch of transcripts you want to verify and, in the **ImageNow DataCapture Verifier** window, perform group and context verification by using the following commands:

    - To accept a group of characters and go to the next group, press the ENTER key.

    - To correct a group of characters, select the character you want using the PLUS SIGN (+) and MINUS SIGN (-) keys on the numeric keypad, and then make any corrections using your keyboard.

    Note When conducting group verification, you verify against all instances of a character in the group. For example, when you accept the letter "A" in group verification, you are accepting the letter "A" for all of the uncertain characters that appear in the group.

2. If your solution includes validation rules and an error occurs against one of those rules, the **ImageNow Validation** window opens after you perform context verification. To validate and correct any errors, perform the following substeps:

    1. To correct an error, double-click the area surrounded by a red box and enter your corrections.

    2. If you have more than one page of errors, press the PLUS SIGN (+) key on the numeric keypad to move to the next page.

    3. After you enter all corrections, close the **ImageNow DataCapture Verifier** window.

4. To complete the DataCapture transcript process, perform the following substeps:

    1. Open the transcript in the documents grid or in the workflow queue and press F7 to refresh its content.

    2. Make any needed changes to the data displayed in Transcript Form or in the **Properties** pane and click **Save**.

    3. If the transcript is in workflow, on the **Workflow** toolbar, click the **Route Forward** button.

    4. Close Viewer.

Verify data using the Transcript Form

To manually verify the extracted transcript data using the Transcript Form and complete the DataCapture transcript process, perform the following steps.

1. In the workflow grid, open the transcript you want to manually verify.

2. If the **Forms** pane is not visible, in **Viewer**, on the **View** menu, click **Forms**.

3. If the Transcript Form is not visible, in the **Forms** pane, in the **Select a form** list, select **Transcript Form**.

4. Press F7 to update the content and make any needed changes to the data displayed in the form.

5. To change property values assigned to the transcript, in the **Properties** pane, make any needed changes.

6. If you made changes, click **Save**.

7. On the **Workflow** toolbar, click the **Route Forward** button and close the iewer.

View extracted data

After a transcript is processed, you can open the transcript to view its extracted data. Additionally, if your administrator configured your solution to share extracted transcript data with your student information system, you can open a student's record to view the data. The following steps explain how to view the extracted transcript data in ImageNow.

1. In the documents grid or a workflow queue, open a transcript that completed the DataCapture process and press F7 to refresh its content.

2. Perform any of the following actions:

   - To view extracted data displayed in the Transcript Form, on the **Forms** pane, in the **Select a form** list, select **Transcript Form**.

   - To view extracted data stored as document property values, view the data displayed in the **Properties** pane.

   - To view all data extracted from the transcript, on the **View** menu, click **DataCapture Results**.

3. Close viewer.

Appendix A: Batch grid steps and states

The following table describes the DataCapture steps and states that display in the batch grid in ImageNow Client. These steps and states indicate the status of a batch of transcripts as DataCapture completes each processing phase.

Note You can identify a DataCapture batch in any step because the **Type** column of the grid contains **DC**.

Step	State	User Action	ImageNow Action
Scan	In Process	Scan paper transcripts or import electronic transcripts.	
	Completed		Move the batch to "Ready for QA."
QA	In Process	Open a transcript batch and approve, rotate, or delete the pages. ImageNow Client skips this step if your administrator defines the capture profile to bypass QA.	
	Completed		Incorporate QA changes made by the user.
DC Read	In Process	No action. The step begins automatically after the user completes the QA step.	
	Completed		Submit transcripts to DataCapture.
DC Verify	In Process	Make corrections as necessary in the ImageNow Verifier window. The user cannot leave this step until all characters are verified. ImageNow Client skips this step if your administrator sets Bypass Verification in the INServerDC.ini file.	
	Completed		Incorporate any verification changes made by the user.
DC Export	In Process	No action. The step begins automatically after the DC Verify step is completed.	
	Completed		Save the transcripts as ImageNow documents and add them to a workflow queue. ImageNow exports the extracted transcript data to the Transcript Form and provides an output file that you can share with the student information system.

Appendix B: DataCapture Verification Station

DataCapture Verification Station provides the following three modes: group verification, context verification, and rules validation. If your process requires it, you use these modes to verify and validate extracted transcript data.

Group verification mode

In group verification mode, DataCapture submits characters for verification in groups. For example, you can easily spot a character that stands out in the group of similar characters and correct it. In a group of 1s, you can spot a 7 that was incorrectly recognized as 1. Up to 300 characters can appear at one time, all of which you can confirm with a single click. If DataCapture does not identify any uncertain characters, it skips group verification.

Group mode is useful for verifying check marks, groups of check marks, and text fields that contain only digits. It is less convenient for text fields containing both letters and digits or only letters. If you are unable to reliably distinguish between a "0" and an "O" or a "6" and a "G", you can instead postpone the characters and verify or correct them in context verification mode.

To move through each screen in the group verification process, press the PLUS (+) key on the numeric keypad. You can save your changes, click the red x to close the window, and then later return to resume the verification process.

Symbols in group verification mode

The following table explains the color coding of characters when you are in group verification mode.

Symbol	Description
Character on a blue background	The current character (the image of the character is enclosed in a rectangle)
Character on a yellow background	A character to verifiylater (neither confirmed nor corrected)

The number of characters you see at one time depends on the size of the Verification window. Actions you perform in this window affect only the characters currently displayed in the window.

Working in group verification mode

The following table lists keyboard actions available when you are in group verification mode.

Action	Press this key
Confirm a character.	ENTER
Edit the current character.	The key of the required character
Postpone verifying the current character	SPACE
Move through a group.	LEFT ARROW or RIGHT ARROW
Move to the beginning of a group.	HOME

Action	Press this key
Move to the end of a group.	END
Move up or down in a group (or move to the previous or next group).	UP ARROW or DOWN ARROW
Move to the previous or next group without confirming the current one.	PAGE UP or PAGE DOWN
Hide or show the Zoom window.	CTRL+ PLUS key
Move in the Zoom window.	ALT + arrow key
Move to the page margin in the Zoom window.	ALT + SHIFT + arrow key
Exclude the page of the current check mark from verification. This action sets a verification error flag for the page, and only re-recognition removes it.	CTRL + S
Close the verification window.	ESC

Context verification mode

After you complete the group verification, and if context verification is needed, DataCapture automatically starts context verification. Context mode is useful for fields containing words, as DataCapture displays each character in its context.

To move through each page or screen in the context verification process, press the PLUS (+) key. When you complete group and context verification, the status message displays **End of text**. To exit ImageNow DataCapture Verifier, press ENTER, save changes when prompted, and then go to the next step in the DataCapture process. To exit this stage of verification and close the active DataCapture Verifier window, click the red x.

Symbols in context verification mode

The following table explains the color coding of characters when you are in context verification mode.

Symbol	Description
¶	End of line
Red character	Uncertain character
Blue character	The current character to verify
Black character	Verified or reliably recognized character
Character on a blue background	The current character (the image of the character is enclosed in a rectangle)

Note Color coding is configurable in Verification Station. Therefore, the colors you see in the Verifier window may differ from the colors listed in this section.

Working in context verification mode

The following table lists available keyboard actions in context verification mode.

Action	Instruction
Correct an incorrectly recognized character	Click or use arrow keys to move the highlight to the character to replace and replace it.
Delete a character or space	Click or use arrow keys to move the highlight to the character and press DEL.
Mark as "to be verified later"	Press SPACE.
Insert a space after the current character	Press INS.
Insert a character after the current character	Insert a space (press INS), move to this space, and insert the desired character.
Replace two or more characters with a single character	Select the characters concerned (SHIFT+ LEFT ARROW or SHIFT+ RIGHT ARROW) and press the desired character key.
Move the cursor to the beginning of an item	Press HOME.
Move the cursor to the end of an item	Press END.
Confirm an item	Press ENTER. (This automatically replaces all green and blue characters with black ones.) This action confirms the character, word, or entire item, depending on the settings in the **Confirm what** field in options list for the block.
Move to the previous or next item without confirming the current one	Press UP ARROW or DOWN ARROW.
Close the verification window	Press ESC.

Note Any manual input block for which the Verify block option is checked is also submitted for context verification. These blocks have "(manual input)" appended to their names. You must type the text to verify it. Manual input blocks are available only on static forms created in the Template Designer tool.

Rules validation commands

In the validation process, you review and correct data that DataCapture collected against a set of predefined rules. DataCapture outlines errors in red. If you choose not to correct an error, DataCapture sends the transcript to the DC Error queue.

Command	Description
Change the scale in the Zoom window	Right-click in the Zoom window and, in the Scale item, select a scale.
Change the scale in the Image window	Right-click in the Image window and, in the Scale item, select a scale.
Correct an error detected by a validation rule	Double-click a line with an error. The corresponding blocks are enclosed in red frames. Move from one field to the next by pressing F2 or SHIFT+F2 and correct the data. **Note** When the highlight moves from one field to the next, the rule is automatically applied. If, after editing the field, the rule can be executed successfully, the respective line in the rule error list disappears.
Next or Previous block containing errors	Press the PLUS (+) key or MINUS (-) key on the numeric keypad.
Next or Previous block in the Page window	Press TAB or SHIFT+TAB to move the cursor to the next or previous block in the Page window.
Next or Previous rule error	Press F8 or SHIFT+F8. The highlight appears in the first field of the next or previous rule respectively, and the fields to be checked are enclosed in red frames.

Appendix C: Template guide

DataCapture relies on templates to identify and process transcripts. Each template is associated with a capture profile that you select to capture a batch of transcripts. During the planning stages of your DataCapture transcript solution, your Perceptive Software implementation team works with you to identify the transcript layouts that your institution most often processes and to create custom templates for those layouts. If your solution includes the Template Designer, your administrator can prepare additional custom templates. If you receive a transcript layout that does not match a custom template, you can process the transcript manually or with the generic template. The following sections provide a guide to help you understand when the generic template applies and the best conditions under which transcripts are processed. It also describes conditions that might interfere with transcript processing.

Generic template

The generic DataCapture template is ideal for processing one-column and two-column transcripts of high quality. High quality transcripts with clear, well-defined information provide the best results during the DataCapture process. The following examples describe how DataCapture interprets one- and two-column transcripts of high quality and low quality.

One-column transcripts of high quality

The following example transcripts contain clear, well-defined information, which minimizes the chances of DataCapture misreading a calendar term during processing.

COURSE	TITLE	GRADE	GPU	EARU	GPT	GPA
2002 Summer						
PE-30A	Cardio/Strength Fitness	A	0.50	0.50	2.00	
COMSTD-2	Fund of Effective Speaking	A+	3.00	3.00	12.00	
Term Totals			3.50	3.50	14.00	4.000
Cumulative Totals			3.50	3.50	14.00	4.000

The course details are well spaced, and there are no additional markings on the image. When you process transcripts of this quality, you receive the highest hit rate and character accuracy.

One-column transcripts of low quality

The following example transcript breaks almost every guideline for quality transcripts.

Most importantly, DataCapture cannot read the term "Fall" because it is blurry, which increases the chances of DataCapture missing the calendar term data. In addition to the blurred term, several other problems remain:

- Extremely short data values, such as "IS", and single-digit course numbers, increase the likelihood of errors during processing.

- Information that is crossed out, such as the labels at the top of the transcript, interferes with the processes of identifying where the term information starts and determining whether there are one or two columns on the page.

- Checkmarks can interfere with identifying data such as credits, grades, and points. They can also make separate course rows appear to run together.

- Handwritten parentheses and other notations can result in additional verification processes and inaccurate information.

- All of the data contained in any line that has been crossed out must be manually entered.

- DataCapture cannot correctly read stamps.

- Additional markings on the page lower the overall legibility of the transcript and can easily be mistaken for punctuation marks.

Two-column transcripts of high quality

The sample transcripts below contain clear, well-defined information, which minimizes the chances of a calendar term being misread during processing. The course details are well spaced, and there are no additional markings on the image. Transcripts of this quality provide the highest accuracy rate when extracting data.

```
----------------------2001 Fall Quarter----------------------

     Admitted Program
        All University
          no degree
             Major·   Undeclared

-------------------------------------------------------------
   KPE -3545 COMPET CONDITION            A      2.00     8.00
   KPE -4058 I-C GOLF MEN ⌐              A      1.00     4.00
   MATH-1810 MATH BUS SOC SC 1           A-     4.00    14.80
   PSYC-1000 PSYC I OVERVIEW             B+     5.00    16.50
   SPCH-1004 INTPERSONAL COMM            B      4.00    12.00
-------------------------------------------------------------
```

SPRING SEMESTER 2001			UA	UE	GP	GR	REF
GEOG	150	WORLD GEOGRAPHY	3.0	3.0	6.0	C	
PSY	150	PRIN HUM BEHAVIOR	3.0	3.0	8.1	B-	
MATH	094B	ALGEBRA	0.0	5.0	0.0	CR	
BIOL	101L	GEN BIOLOGY LAB	1.0	1.0	4.0	A	
AAS	098	DEVELOPTL WRITING	0.0	3.0	0.0	CR	
BIOL	101	GENERAL BIOLOGY	3.0	3.0	9.0	B	
			10.0	18.0	27.1	(2.71)	

Academic Year 1997-1998 : Spring Term						
COMP-162	Intro. to Software Appications	C	3.00	3.00	6.00	
ENGL-102	Written Communications II	C	3.00	3.00	6.00	
HPER-102	Personal Hygiene & Comm. Healt	B	3.00	3.00	9.00	
HPER-106	Weight Training & Body Cond. (D:	A	2.00	2.00	8.00	
SOCI-290	Prob. in Soc.: Violence & Abuse	B	2.00	2.00	6.00	
	Term Totals :		13.00	13.00	35.00	2.69
	Career Totals :		26.00	29.00	68.00	2.34

Two-column transcripts of low quality

When working with two-column transcripts, DataCapture must determine where the first column ends and the second column begins. It can use the labels at the top of the information for the term–such as course, description, and grade–to locate the beginning and end of a column. However, if the labels are unreliable because of poor quality, or if the labels are underlined, DataCapture may detect only one column instead of two.

All other general quality considerations for transcripts also apply, such as:

- Extremely short data values, such as "EN" and "IS", increase the likelihood of errors during processing.

- Information that is crossed out, such as the labels at the top of the transcript, interferes with the processes of identifying where the term information starts and determining whether there are one or two columns on the page.

- Checkmarks can cause problems when identifying data such as credits, grades, and points. They can also make separate course rows appear to run together.

- Handwritten parentheses and other notations can result in additional verification processes and inaccurate information.

- All of the data contained in any line that has been crossed out must be manually entered.

- DataCapture cannot correctly read stamps, resulting in possible confusion in some of the rules and other unforeseen problems in processing.

- Additional markings on the page lower the overall legibility of the transcript and can easily be mistaken for punctuation marks.

- Blurry term names are easily misread and can be difficult to accurately identify.

The following example transcripts contain blurry text, short data values, and other content that can prevent DataCapture from processing them correctly.

Manual processing

The issues with transcripts described here cause DataCapture to misinterpret the data. Transcripts with these issues might require that you manually enter or correct transcript data.

Transcripts with formatting issues

Lines in the transcripts can interfere with how DataCapture reads it. In the following examples, horizontal lines separate the terms and years . When this occurs, it is impossible for DataCapture to correctly read the text, and the data for these terms is missed.

DISCIPLINE	COURSE TITLE	GRADE	ATT	UNITS EARNED	GRADE POINTS	CODE	GPA
		FALL	2002				
MATH 131	College Algebra	A	3.0	3.0	12.0		
LDRSHP 111	Prin/Prac Student Gov	A	2.0	2.0	8.0		
SPEECH 102	Small Grp Communication	A	3.0	3.0	12.0		
SOC 170	Race & Ethnic Relations	A	3.0	3.0	12.0		
SPEECH .08	Oral Intrprt Literature	A	3.0	3.0	12.0		
	cr		14.0	14.0	56.0		4.00

COURSE NAME	COURSE NUMBER	DESCRIPTIVE TITLE	UNITS ATTEMPTED	UNITS EARNED	GRADE	GRADE POINTS	GRADE POINT AVERAGE
		SUMMER 2000					
PSYC	1	GENERAL INTRODUCTORY PSYC	3.0	3.0	A	12.0	
		SEMESTER TOTAL	3.0	3.0		12.0	4.00
		CUMULATIVE TOTAL	3.0	3.0		12.0	4.00

Poorly printed transcripts

Poor print quality occurs on the following sample transcripts. In addition, in the following example, the vertical line separating the credit values reduces the accuracy of reading the characters by roughly 75 percent.

```
             SPRING 1984
P E  1088  INTERMEDIATE BASKETBALL    10 A    4.0
P E  331A  COACHING BASKETBALL        20 A    8.0
P E  362   EXERCISE PHYSIOLOGY LAB    10 B+   3.3
P E  564   CAUSE/PREVENT SPORT INJUR  30 B    9.0
P E  585   MEASUREMENT&EVAL PHYS ED   30 B    9.0
 72.0  79.0  157.9        10.0 10.0 33.3
 69.0  76.0  152.8
```

In the following example, the lack of a clearly defined term summary (FALL 74) prevents the identification of the end of the term. In this case, DataCapture interprets the digits as the course number, which causes it to misread the description, grade, credits, and points.

Extraneous information appears on the front of the transcript

The front of a transcript generally lists information regarding a student's grades, course numbers, and accreditations while the back of a transcript generally includes any supporting information. When the front of a transcript includes extraneous information, DataCapture can misinterpret the front of the transcript as the back. For example, the following transcript includes extraneous grading system and codes information on the front, lower-right corner. The front of this transcript would be interpreted as the back, missing the data on the front of the transcript.

DEPT.	NO.	COURSE DESCRIPTION	CR. ATTEMPT	CR. EARNED	GRADE	STATUS	BIRTH DATE	ENTERED	SE
ENG.	101	COMPOSITION 1	3.0	3.0	C+	MATRIC	07/09/86	9/05	M
SEM. AVG.		FALL'05 7.50/003.00		3.0	2.50				
MAT	109	ALGEBRA&TRIGONOMETRY	4.0	—	W				
SEM. AVG.		SPRING'06 .00/000.00		0.0	-.-				
ENG	102	COMPOSITION 2	3.0	3.0	B				
SEM. AVG.		SUMMER'06 9.00/003.00		3.0	3.00				
ELT	103	ELEM ENGINEERING 1	1.0	1.0	A				
ELT	110	TECHNICAL PRACTICES	2.0	2.0	A				
ELT	112	RESISTIVE CIRCUITS	4.0	4.0	A				
MAT	109	ALGEBRA&TRIGONOMETRY	4.0	4.0	B+				
SEM. AVG.		FALL'06 42.00/011.00		11.0	3.82				
ELT	113	ELECTRONICS 1	4.0	4.0	D+				
ELT	115	REACTIVE CIRCUITS	4.0	4.0	B				
ELT	214	DIGITAL ELECTRNCS 1	3.0	—	W				
MAT	111	ELEMENTARY FUNCTIONS	4.0	4.0	D+				
SEM. AVG.		SPRING'07 24.00/012.00		12.0	2.00				
CUM. AVG.		82.50/029.00		29.0	2.84				

DEGREES AWARDED

HONORS AND AWARDS

FOR EXCLUSIVE USE OF:

VIDAL   JOSE   N
9225 107TH STREET
RICHMND HL NY 11418

GRADING SYSTEM

PLUS (+) GRADES EFFECTIVE AS OF SEMESTER ENDING 1/68.

A	-	(90-100)	4.0 H.P.	S - SATISFACTORY
B+	-	(85-89)	3.5 H.P.	U - UNSATISFACTORY
B	-	(80-84)	3.0 H.P.	
C+	-	(75-79)	2.5 H.P.	W - WITHDREW
C	-	(70-74)	2.0 H.P.	NG - NO GRADE, AUDIT
D+	-	(65-69)	1.5 H.P.	INC - INCOMPLETE
D	-	(60-64)	1.0 H.P.	
F	-	FAILURE	0.0 H.P.	X - NOT APPLICABLE TO
WP	-	WITHDREW PASS	0.0 H.P.	DEGREE
WF	-	WITHDREW FAILURE	0.0 H.P.	
P	-	PASS		* - REPEAT

ALL CREDITS ARE AWARDED ON A SEMESTER HOUR BASIS

DEPT. SUBJECT CODES

DEPARTMENT SUFFIX CODES

H - HONORS COURSE   O - OTHER EXTENSION COURSE
I - INDEPENDENT STUDY (S.U.N.Y)   U - UNIV OF THE AIR (S.U.N.Y. TV)

OFFICIAL TRANSCRIPTS **MUST** BE EMBOSSED WITH THE SEAL OF THE COLLEGE.

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