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Banner Student Release Guide

Release 8.6.2
February 2014



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Banner Student 8.6.2 Release Guide

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Introduction

This release guide documents Release 8.6.2 of the Banner® Student System. Release 8.6.2 includes an enhancement and change request resolutions.

 **Note**

This release is not dependent on Banner Student 8.6.1. Banner Student 8.6.1 contains updates for Banner Recruiter Integration processing. ■

Enhancement for 8.6.2

This document describes the following enhancement, which is new for Release 8.6.2.

eTranscript Processing

The eTranscript Processing enhancement allows you to use Banner Student, the Ellucian Cloud, and the National Student Clearinghouse (NSC) to accept secure transcript orders and automate the process of fulfilling those orders. The transcript orders are sent from the NSC to Banner Student using the eTranscript Ellucian Cloud interface.

The student orders a transcript through the NSC user interface, and the Ellucian Cloud serves as the communication broker between the NSC and the Banner ERP. The NSC handles FERPA consent, credit card payments, and institution branding for electronic transcript PDF files.

This hands free approach reduces the workload in the Registrar's Office and improves the quality and timeliness of transcript services to students and alumni, as the processing and delivery of transcripts will not necessitate human intervention for the vast majority of transcript orders.



1 eTranscript - Functional

This section details the functional changes delivered for the eTranscript enhancement.

Overview

The eTranscript Processing enhancement allows you to use Banner Student, the Ellucian Cloud, and the National Student Clearinghouse (NSC) to accept secure transcript orders and automate the process of fulfilling those orders. The transcript orders are sent from the NSC to Banner Student using the eTranscript Ellucian Cloud interface. The student orders a transcript through the NSC user interface, and the Ellucian Cloud serves as the communication broker between the NSC and the Banner ERP. The NSC handles FERPA consent, credit card payments, and institution branding for electronic transcript PDF files.

This hands free approach reduces the workload in the Registrar's Office and improves the quality and timeliness of transcript services to students and alumni, as the processing and delivery of transcripts will not necessitate human intervention for the vast majority of transcript orders.

Order status logic and transcript order status codes are used to drive the automation and transcript processing. Processing can be paused as needed, such as when a future processing request is associated with the transcript order to wait for grades to be conferred and rolled to academic history or for pending degrees to be awarded. Manual processing intervention can also take place when needed.

The enhancement includes new Banner forms, C processes, Java processes, database tables, queue tables, RESTful APIs, packages, a reporting process, XML schema (based on existing PESC standards), and seed data.

PESC standards

eTranscript processing uses existing PESC XML schema standards. Schemas include mutually agreed upon user-defined elements. Here are the specific standards for the request and response processing.

- XML College Transcript Request for the order
 - CollegeTranscript: v.1.4.0
 - CoreMain: v1.12.0
 - AcademicRecord: v.1.7.0

- XML College Transcript Response

This is used to send back the initial response of Order Received and is then used for all subsequent order status updates.

- TranscriptResponse: v.1.2.0
- CoreMain v.1.12.0
- AcademicRecord v.1.7.0

 **Note**

At this time, the eTranscript process produces paper and PDF output. There are references to XML throughout this document, because XML is used to create the PDF output, and it is used for communication between Banner, the Ellucian Cloud, and the NSC. This release of eTranscript functionality does not support production of an XML transcript. ■

Dependencies

The following dependencies exist for Banner Student 8.6.2:

- Banner Student 8.6
- Banner General 8.6
- Banner Accounts Receivable 8.4.5

 **Note**

Banner Student 8.6.1 is not a dependency. ■

The following dependencies exist for Banner 9.0 eTranscript APIs:

- Banner Student 8.6.2 applied
- DBEU applied to Banner General, Banner Student, Banner Accounts Receivable
- The war file with APIs can be deployed to either a WebLogic or Tomcat server.
- JDK 1.6 is required

 **Warning**

You must apply the upgrade for 9.0 along with 8.6.2 in order to use eTranscript functionality. ■

Your institution must be active with the NSC Transcript Ordering Service.

Ellucian Cloud setup must be completed.

Please refer to the following documents for additional information. These documents are located in the Ellucian eTranscripts documentation library in salesforce.

- eTranscript Readiness 1.0

- eTranscript Cloud Enablement Form
- Cloud Configuration User Guide
- Banner eTranscript Go Live Checklist

MEP

The Banner Student 8.6.2 release is MEP compatible. However it is not certified as MEP ready. MEP use has not been tested with eTranscript functionality.

Processing

This section discusses setting up and using eTranscript with Banner Student.

Banner setup steps

Use the following steps to set up eTranscript processing in Banner.

1. Check that delivered seed data is available on the validation forms used with eTranscript processing.
 - 1.1. Verify that delivery method codes exist on the eTranscript Delivery Method Validation Form (STVETME).
 - 1.2. Verify that PESC transcript purpose codes exist on the eTranscript PESC Transcript Purpose Validation Form (STVETPU).
 - 1.3. Verify that electronic order status codes exist on the eTranscript Electronic Transcript Status Validation Form (STVETST).
 - 1.4. Verify that PESC transcript type codes exist on the eTranscript PESC Transcript Type Validation Form (STVETTP).
2. Define transcript types on the Transcript Type Code Validation Form (STVTPRT).
 - Existing transcript type codes can be used with eTranscript processing. Different transcript types are only needed if different information is included in the transcript.
 - The **Web Indicator** is not used with eTranscript processing.
 - These Banner transcript types on STVTPRT will be mapped with third party transcript types in step 10.2 - Set up transcript type rules.
3. Use the print options on the Transcript Type Rules Form (SHATPRT) to create rules for each transcript type.

- The print options for User-Defined Extensions must be checked for PDF transcripts. (**College Transcript, Student, Academic Record, Course**)
 - The print option for **Student Centric Period Statistics** is not available for use with PDF transcripts at this time.
 - The print options for **Test Scores** and **Immunization Data** are only used with the PESC/XML transcripts. They are not used with baseline paper or PDF transcripts.
While test scores and immunizations are not included in PDF transcripts, you can add these options by creating a custom PDF template. The information exists in the XML that is used to create the PDF. However the delivered PDF template does not display the information.
 - The curriculum, personalization, and name hierarchy print options are used for PDF transcripts.
4. Define rules for display of GPA information on the GPA Display Rules Form (SHAGPAR).
 - Rules determine whether GPAs are rounded off or truncated and define the number of positions displayed to the right of the decimal.
 - The delivered default PDF transcript displays two places after the decimal for the GPA and quality points, and the values are rounded.
 - When rules are the same for all levels and campuses, go to the Overall Term Selection block to enter data.
 - When multiple effective term records exist, the Overall Term Selection block is used to select the rule for applied for processing.
 5. Define printer codes and commands for printed transcripts on the Printer Validation Form (GTVPRNT).
 6. Define a common matching source code for use with eTranscripts on the Common Matching Source Code Validation Form (GTVCMSC).
 7. Set up common matching rule sets on the Common Matching Rules Form (GORCMRL).
 - The last name, first name, and date of birth are required when students complete the NSC transcript request.
 - The student may also provide an unverified Banner ID, and a Social Security Number, but these are optional. When you are configuring your school profile with the NSC, you can require the Banner ID or SSN.
The NSC profile can require the entry of the unverified Banner ID or the SSN, so that one or the other must be filled out along with the first name, last name, and date of birth.

- Your settings on the NSC School Profile will determine your settings for the **Match on Null Data** field for the SSN and Banner ID on GORCMRL. If you allow the student to enter either the SSN or the Banner ID during the ordering process, then **Match on Null Data** would be set to *No* for both elements.
 - Matching rules must be set up so that if any data element does not match, even if it is optional, there is no match for the student. For example, if the student has the option to submit either the SSN or the Banner ID during the order process, and the student includes both items, they must both be correct for a match to occur. This will help ensure that the student is the actual person placing the transcript order.
 - The eTranscript matching process uses the data on the Name Translation Rules Form (GORNAME).
8. Define common matching source rules and rule options on the Common Matching Source Rules Form (GORCMSC).
- The Data Entry/Update Defaults, Hierarchy of Display, and Detail List blocks do not apply to eTranscript processing.
 - A sample rule could be **Matching Source** of *ETRANSCRIPT*, with a description of *eTranscript Common Matching Source*.

The Options section can be set to **Match Type** of *Person*, with the **Transpose Date Month/Day** and **Transpose First Name/Last Name** indicators checked.

It is *not* recommended that the **Allow Alias Wildcard Use** and **Allow Length Override** indicators be checked.

9. Define your rules on the eTranscript Rule Form (SHRTETC).

9.1. Set up processing rules.

- 9.1.1. Enter your institution's eight-digit OPEID number.

If you have a six-digit OPEID number and you are not at a branch campus, enter the last two digits as *00*.

- 9.1.2. Enter the default transcript type and default level that will be used if a value has not been mapped to the third party transcript type in the Transcript Types block.

AL for “All” levels is a valid value.

- 9.1.3. Check the **Include In-Progress Courses** indicator if you wish to include in-progress courses on the transcripts.

This is a global setting for all eTranscript orders.

- 9.1.4.** Enter the number of auto cancel days, *0 - 30*, after which an order is automatically canceled.

If the current order status is *HR - Hold for Restrictions* or *NF - Student Not Found*, and the number of auto cancel days is exceeded, the order will become expired and will be automatically canceled.

- 9.1.5.** Enter the common matching source rule that will be used for the matching process.

9.2. Set up transcript type rules.

- Enter all combinations of third party transcript type, third party transcript purpose, and Banner transcript type from STVTPRT that you want to use. Your combinations should match the NSC school profile options.
- The transcript requester selects the transcript type and purpose as part of the NSC order. This mapping equates the selections to a Banner transcript type that can be produced.
- This mapping is optional. The default transcript type from the Processing Rules block is used if no mapping is entered here.
- If one Banner transcript type and level will be used for all students, this setup is optional. The default transcript type and level from the Processing Rules block can be used. *AL* for “All” levels is a valid value.

9.3. Set up delivery type rules.

- Enter all combinations of PESC delivery method, PESC format, and Banner send type that you want to allow students to be able to request.
- The Banner output type is the same as the output type on the Transcript Request Form (SHARQTC). The value of *PDF* can be selected. This value is saved to the database as *D*. (This is a new value on SHARQTC.)

9.4. Set up level rules.

- Match each third party transcript type with a Banner course level.
- This optional mapping determines the level that is used on SHARQTC.
- If transcript types and levels are not entered here, the default level from the Processing Rules block is used.
- If one Banner transcript type and level will be used for all students, this setup is optional. The default transcript type and level from the Processing Rules block can be used.
- *AL* for “All” levels is a valid value.

9.5. Set up future processing holds for degrees and grades.

- 9.5.1. Enter a term code to hold the transcript for a degree or for grades. Only one term can be entered per future processing record.
- 9.5.2. Enter a release date. After this date, the eTranscript process will check daily to determine if the degree has been awarded or if grades have been rolled to academic history for the student.

Once all grades for a student are in academic history or the degree has been awarded, transcript processing will continue.

- 10. Define transcript PDF rules on the eTranscript PDF Printer Rule Form (SHRPDFT).
 - 10.1. Enter a PDF template for each Banner transcript type that produces PDF output.
 - 10.2. Enter the printer name for each Banner transcript type that can be produced as a hardcopy (paper) output.

A transcript type can be associated with both a PDF template and a printer by entering the template and the printer name on one record.

If a PDF template is not entered or cannot be found during processing, the default template will be used.
- 11. Set up the file transfer and Ellucian Cloud configuration information on the eTranscript Administrator Configuration Form (SHAETAD).
 - 11.1. Enter the SFTP information for file transmission.
 - 11.2. Enter the information for the Ellucian Cloud connection.

- 12. Set up crosswalk values on the EDI Cross-Reference Rules Form (SOAXREF).

Order values from the SHRTEOD table need to be set up as crosswalks to the Banner values that are needed on SHARQTC. Crosswalks for state and nation values can be defined on SOAXREF for the STVSTAT and STVNATN cross-reference labels.

Verify that the **XML** indicator is checked on SOAXREF for each rule so the PESC value is translated.

- 13. Define a database user named *ETRANSCRIPT*.

The *ETRANSCRIPT* user is a standard Banner that should be assigned *BAN_DEFAULT_M* and *BAN_DEFAULT_Q* privileges.

You can use *ETRANSCRIPT* to log in to Banner and change the address type and priority defaults for SHRETRN and SHRTRTC so they are correct for your institution.

 **Note**

It is recommended that the Print Expanded Address parameter for SHRTRTC be set to a value of 40 or greater. The NSC order page allows students to enter 40 characters in each address line. ■

14. Set up a default job submission parameter set on the Process Submission Controls Form (GJAPCTL) for the *ETRANSCRIPT* user.
 - When the `shkebld.p_call_process` is called, it inserts job submission parameters in GJBPDFT with the user value of *ETRANSCRIPT*. This value is used to find the default values for the eTranscript Export Process (SHRETRN) and the Academic Transcript Process (SHRTRTC).
 - The value of *ETRANSCRIPT* is delivered as seed data and is hardcoded in the SHKEBLD package.
 - Defaults cannot be overridden by a user when processes are run using queues.
 - Do not change the defaults directly in the database or the automated output generation processes could fail.
15. Set up advanced queuing by defining the payload, queues, and queue tables. These are found in the definition scripts included in the upgrade.

Advanced queuing is used to process orders and create the transcripts from either SHRETRN or SHRTRTC.

After an order is processed by SHRETRN or SHRTRTC, the order is saved to a queue to be picked up by the SHRPOST process. This sends the order statuses of *FF*, *FO*, and *TF* to the Ellucian Cloud and *FF* and *FO* to the NSC.

eTranscript components and process flow

eTranscript processing includes three components:

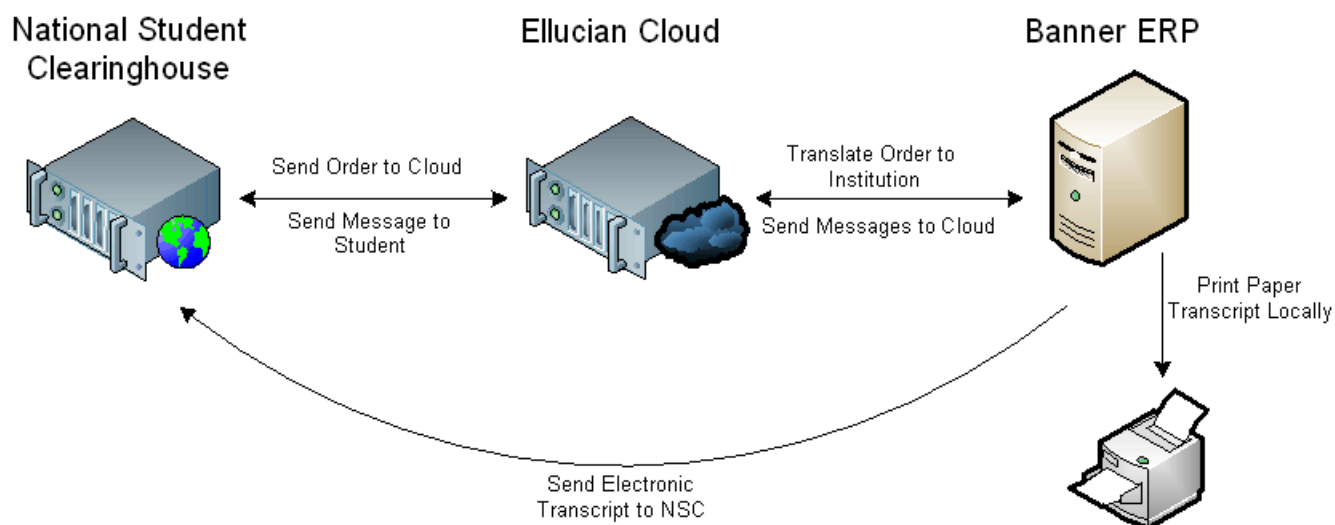
- NSC Interface - This is the third party transcript vendor interface students or alumni use to place transcript orders.
- Ellucian Cloud - The Ellucian Cloud acts as the broker for the order. It is responsible for receiving the transcript order from the NSC, sending the order to the appropriate Banner system, requesting transcript order status updates from Banner, and sending updates (when appropriate) back to the NSC. APIs are executed during the order process and are also used to transmit the orders and provide status updates for the orders.
- Banner ERP - The Banner system receives, automates the processing of, and fulfills the transcript orders.

The communications associated with transcript order processing are always performed through the Ellucian Cloud with two exceptions. The exceptions occur when the transcript order is generated and fulfilled.

- When an electronic PDF transcript is generated, Banner sends the order directly to NSC and bypasses the Ellucian Cloud.

- When a paper transcript is generated, the eTranscript process directs the output to the printer defined on the eTranscript PDF Printer Rule Form (SHRPDFT).

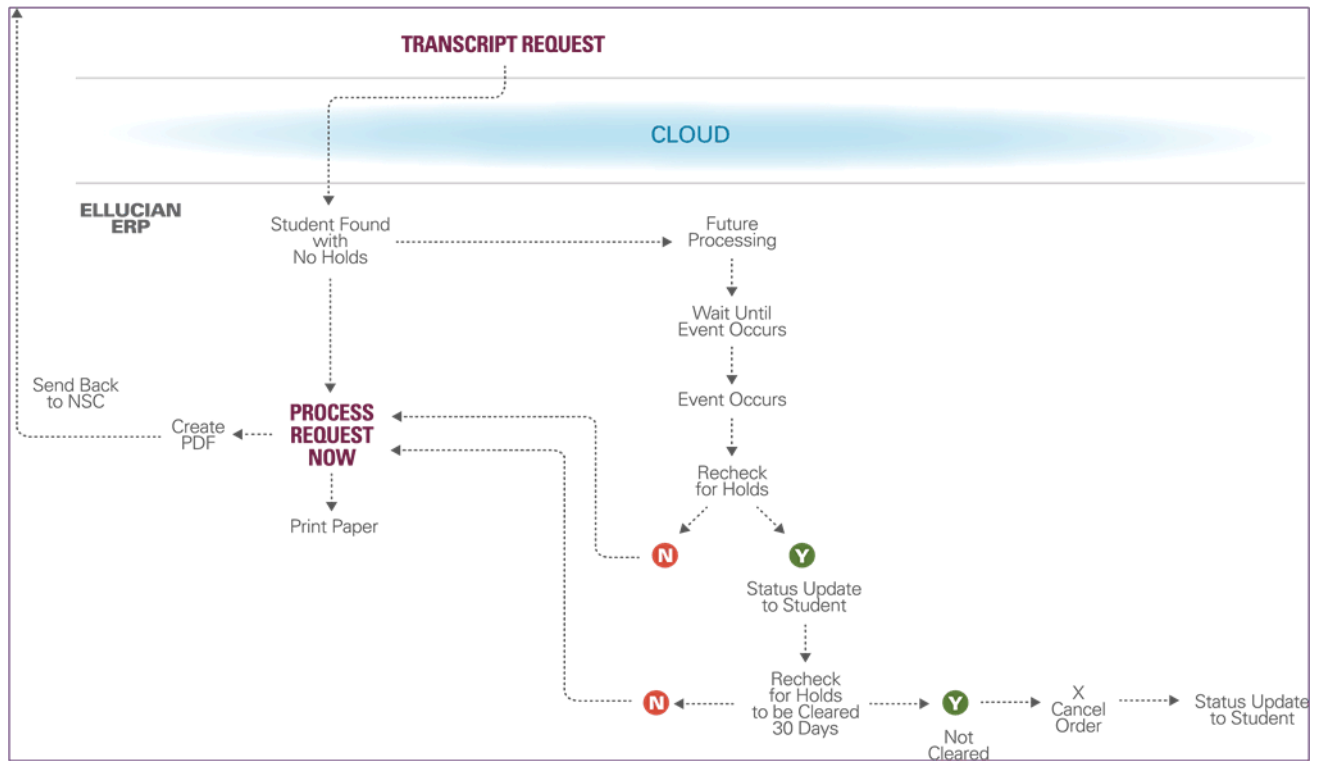
Here is the high level flow of how a transcript order is processed.



The NSC will work with the Registrar’s office at your institution to configure and customize components as needed. The Ellucian Cloud uses the specific institution configuration to enable API calls between the Ellucian Cloud and the NSC, and the Ellucian Cloud and Banner. Banner contains the setup and rules used to support the receipt and processing of eTranscript orders.

eTranscript request fulfilled

Here is a high level look at how a transcript order is fulfilled.



Setup needed for the NSC

Your institution will need to complete a school profile for the NSC. Specific values in the profile need to have corresponding rules in Banner to process transcript order. Profiles include but are not limited to the following types of information.

- if orders are accepted if the student has a transcript hold
- the date when records are not available for access in Banner
- which transcript hold codes in Banner are student actionable and which are school actionable
- the maximum number of attachments a student can upload
- the specific data elements the student can enter on the order form
- the data elements that are required on the order form
- what transcript purpose options can be selected on the order form
- what transcript type options can be selected on the order form
- what delivery method options can be selected on the order form
- what processing options can be selected on the order form

- configuration of informational messages displayed or sent to the student as email or text message

You should work directly with your NSC representative to ensure that all components are in place, and that you are active with the Transcript Ordering Service.

Setup needed for the Ellucian Cloud

You need to perform technical configuration and institution registration to use the Ellucian Cloud. This set up is not within your Banner system, but requires completion directly in the Ellucian Cloud interface. Please note that there is both an Ellucian Cloud test server, and an Ellucian Cloud production server. In each case, you will need to validate that the APIs that are essential for eTranscript processing are successfully communicating between the NSC and your Banner system.

Ellucian Cloud configuration

Your institution must complete the following tasks to configure the Ellucian Cloud.

1. Deploy the eTranscript war file in the DMZ so it is accessible from the Ellucian Cloud.
2. Make the APIs accessible through a range of pre-defined transmission ports.
Available ports are 80, 443, and 8100-8199.
3. Open the firewall to enable API calls from the Ellucian Cloud IP address 149.24.139.255.
4. Request a login to the Ellucian Cloud by submitting an eTranscript Cloud Enablement Form to actionline@ellucian.com.
Ellucian will issue a login and password to the administrator.
5. Complete the registration setup in the Ellucian Cloud.
6. Use the two available Ellucian Cloud servers, production or test.

Ellucian Cloud registration

Your institution must be registered with the Ellucian Cloud. This requires completion of the following tasks.

1. Fill out a form to request a login. The following user and institution information is needed.
 - administrator first name

- administrator last name
 - administrator email
 - administrator office phone
 - institution name
 - institution OPEID Number
 - ERP type (Banner)
 - ERP username (username used to authenticate the Ellucian Cloud against the API)
 - ERP password (password used to authenticate the Ellucian Cloud against the API)
 - URL for the API
2. Receive the login and change the password.
 3. Enter the following information for the Ellucian Cloud Connection:
 - username
 - institution name
 - first name
 - last name
 - email address
 - phone number
 - institution name
 - OPEID number

The OPEID number is used by the Ellucian Cloud to direct API requests from the NSC to Banner.
 - ERP URL
 - ERP type
 - ERP authentication name
 - ERP authentication secret (password)
 - poll time

This is the daily time when the Ellucian Cloud will send a request for order status updates, such as *17:30*.
 - vendor (preferred)

ERP Authentication Name

Use the following guidelines to create the ERP Authentication Name.

- Create this user and add it in GSASECR with appropriate privileges.
- The username must have all capital letters.
- The password cannot contain special characters such as \$, #, @, and so on.
- This requires the CREATE SESSION privilege.
- This currently requires adding GUAGMNU to object security for the user.
- This is the username that the Ellucian Cloud uses to authenticate against the Banner APIs that are called by the Ellucian Cloud.

Order an eTranscript

Here are the options available for a student to order a transcript.

- The student clicks on a link in Banner Student Self-Service.

The link is added in Web Tailor as a new menu item. Please refer to the *Banner Web Tailor User Guide* for more information.

Note

No Single Sign-On (SSO) exists from Banner Self-Service to the NSC login. ■

- The student clicks on a public link on the institution's website that goes directly to the NSC transcript ordering page.
- The student logs into the institution's NSC student self-service application.
- The student directly accesses the public NSC Transcript Ordering website or the institution-specific ordering page. Here is the public ordering website:

https://www.studentclearinghouse.org/secure_area/Transcript/to_bridge.asp

If your institution uses NSC Student Self-Service, students will order transcripts through this service.

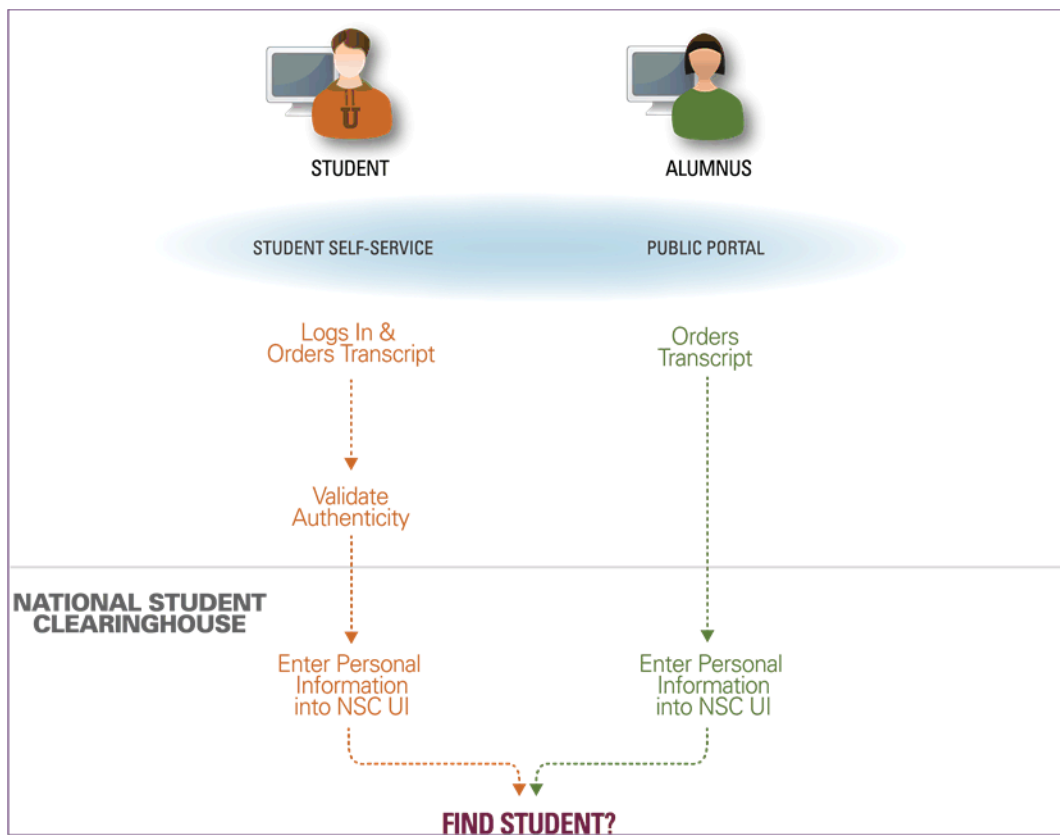
The high level steps in the order process using the National Student Clearinghouse site are as follows. Required fields are in red with an asterisk (*).

1. Enter the student's personal information.
2. Select the transcript recipient.
3. Enter the details for the transcript recipient.
4. Review the transcript order.

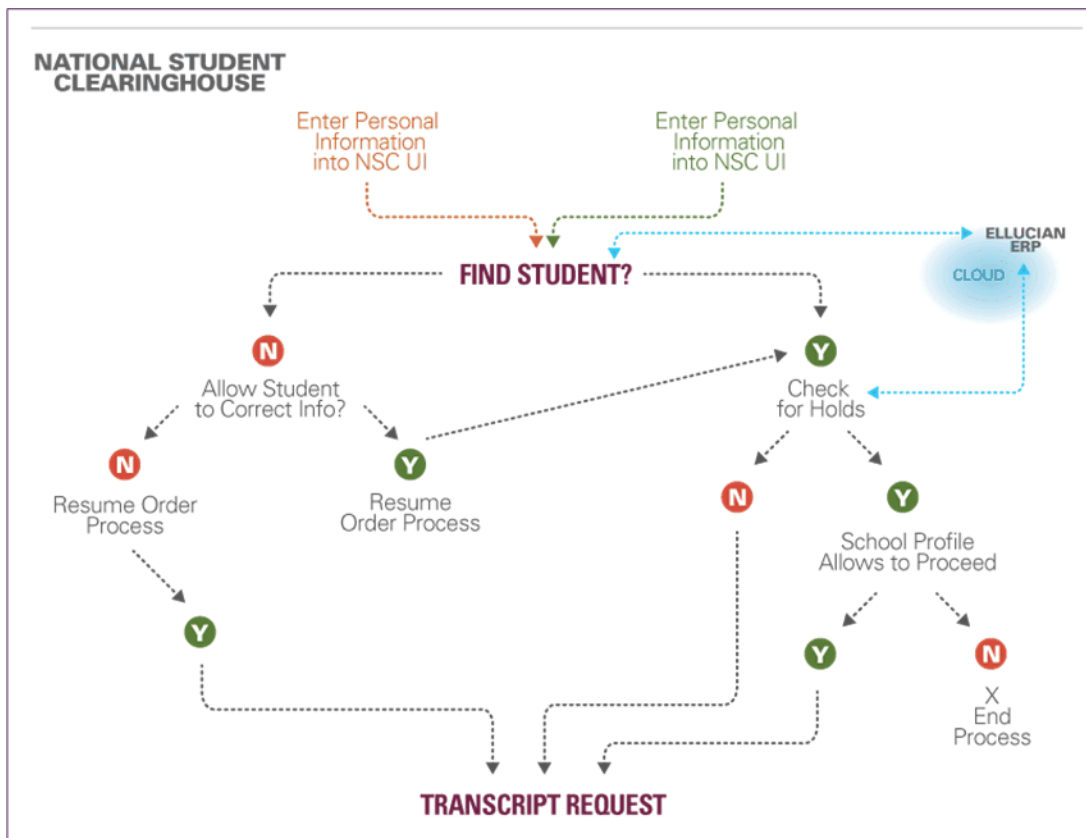
5. Enter credit card information for payment.
6. Sign the consent form for the order.

Student identification

Here is a process flow showing how the NSC verifies the student identification of the student requesting the transcript whether the order is placed through Self-Service or through a public portal.



Here is a process flow showing how the NSC verifies the student identification when holds exist.



Student data collected for order

The following information is provided by the student for the order. This information can be useful if an exact match is not found in Banner for the student.

- Demographic data such as a minimum of first name, last name, and date of birth is required for every order.

Student ID and/or SSN can be optional, but the NSC recommends at least one be required.

It is also recommended that a common matching rule is created in Banner based on the required fields.

- Enrollment data such as currently enrolled or not enrolled

If not enrolled, the student may be asked to enter the years of overall attendance or years of attendance at specific institutions, as well as degrees and/or certificates earned and the year in which a degree was earned.

The student can select order details for transcript purpose, processing, and delivery.

- Transcript orders can have different purposes, such as transfer, admission, employment, or scholarship.
- Processing options can be selected such as, now, after grades are posted, or after a degree is awarded.
- Delivery methods choices include hold for pickup, electronic PDF file, or mail.

Order processing APIs

Once the student has filled out the order information (required and optional) and clicks on the appropriate button, such as Next, processing begins. The Clearinghouse initiates calls to one or more Ellucian Cloud APIs. The Ellucian Cloud then calls the appropriate Banner APIs.

- The Find a Student API is always called, unless the ERP is down and exception processing is needed.

When the ERP is down, the NSC sweeper job is run every 10 minutes in production checking for orders that need to be sent to the Ellucian Cloud. If the Ellucian Cloud does not respond, the process continues to attempt to send the waiting transcript orders every 10 minutes for a period of one day. Once the Ellucian Cloud is back up and running, these records will be processed the next time the NSC sweeper job is run.

- The Find Student Transcript Restrictions API is only called when the Find a Student API has found an exact match in Banner and active holds exist.
- The Get Ungraded Terms API (for terms with courses that have not been graded and rolled to academic history) and the Get Student Programs API (for degrees that have not yet been awarded) are only called when a student is found in Banner, and if values are returned, allows the student to choose a future processing option for the order, if that feature is enabled at your institution.

The APIs following support real-time and automated processing of orders between the NSC, the Ellucian Cloud, and Banner.

Find a Student API

This API is always called and looks for the last name and first name from SPRIDEN and the date of birth from SPBPERS. It also checks for additional required or optional data which includes the unverified student ID from SPRIDEN and the optional government issued ID (SSN) from SPBPERS.

The API calls the institution-specific common matching rule on the eTranscript Rules Form (SHRTETC) by calling the SHKECMN package. Common matching results are not displayed to the student.

If an exact match is found, the Banner ID is returned internally, and the student continues with the order. The process then executes three additional APIs.

- The Find Student Transcript Restrictions API checks for any active transcript holds, such as a library fine or a balance due in Accounts Receivable. For NSC-specific processing, the NSC school profile determines whether your institution will allow the order to continue when restrictions or active holds exist. If the student may not proceed with the order, he/she must exit from the order process.

Your institution-specific NSC profile also allows you to distinguish between student actionable holds which are displayed to the student and school actionable holds which are not displayed to the student. For more information about these types of holds please contact your NSC representative.

- At this point, the Get Ungraded Terms API and the Find Student Programs API could return values for future processing options for the order that can be displayed to the student if they are available.

If no match is found, or multiple possible matches are found, a *Null* value is returned internally, and the student sees a message to try again, if your institution accepts orders without a matching Banner ID. If you try again and click **Next**, you will be taken the next page to continue processing your order, and the status of your order once in Banner will be *NR - Needs Review*.

Note

When a match on any data element fails, there is no match for the student. Even when the incoming last name, first name, and date of birth are matched in Banner, if the incoming optional SSN or Banner ID are not matched in Banner, the match fails. ■

Active transcript holds are not checked until the order is received in Banner. No future processing options for the order are displayed to the student when no match has been found.

Find Student Transcript Restrictions API

This API is called when an exact match is returned by the Find a Student API. The API checks for active transcript holds and returns the hold codes and descriptions for holds found. The student receives a message if actionable holds exist.

The `gb_hold` API finds active, current holds based on the setting of the **Transcript** indicator for the hold code on the Hold Type Code Validation Form (STVHLDD). Student holds can be viewed on the Hold Information Form (SOAHOLD) and in the Order History block of the eTranscript Transcript Request Summary Form (SHAETOR).

Get Student Ungraded Terms API

This API checks for registration terms with one or more gradable courses that remain ungraded and have not been rolled to academic history. The term code and description are

returned. The list of terms is displayed on the NSC ordering page, and the student can select only one term for the transcript order.

Get Student Programs API

This API returns one or more unawarded degrees and/or programs in a 60 position concatenation of level description, plus degree description, plus program description. The degrees are selected from current and active curricula where that term's start and end date range on STVTERM includes the current date. For example, *Undergraduate Bachelor of Arts BA-HISTORY*. Multiple concatenations can be returned. The list is displayed on the third party transcript vendor ordering page, and the student can select only one pending degree.

If Banner degree records do not exist for the student (no SHRDGMR records exist), then existing active curriculum information (SORLCUR) associated with the student's learner record (SGBSTDN) will be used to obtain degree and/or program information that will be returned by the API. Because a term needs to be associated with a degree or program to find the appropriate SHRTETC release date, the term used is derived from the academic status and graduation status information on the General Student Form (SGASTDN). The **Graduation Term** field must be populated.

Determine student effective term

The `svq_sovlcur_term` view is used in this API to build a set of terms where today's date is between the start and end dates for the term, beginning with the minimum term where that is true. For example, if today is November 15:

- Term 201410 has a start date of 15-AUG-2013 and an end date of 15-DEC-2013.
- Term 201412 has a start date of 01-NOV-2013 and an end date of 15-JAN-2014.
- If today's date is 01-DEC-2013, the data will be built starting with term 201410.

The view finds the student's current and active curricula beginning with term 201410.

The view can also find the minimum student effective term (SGBSTDN) that includes the term selected. For example, when a student has these effective terms:

- 200910 - 201110
- 201110 - 999999

The effective term selected for the student is 201110 - 999999.

The view can retrieve the following data from the selected student effective term record:

- the graduation term associated with the student effective term

- the curriculum sequence number associated with the curriculum used to retrieve the SORLCUR record(s)

If the student has more than one curriculum record, all curriculum records will be returned, but any curriculum where the degree has been awarded will not be returned to the list on the transcript vendor ordering page.

The graduation term from the selected student effective term record is used to find the hold for degree rule for the term and to obtain the planned release date from SHRTETC. If no rule can be found for the term, the corresponding STVTERM end date is used. The XML response is returned with the *AD* order status and the planned release date. This date is used by the Ellucian Cloud to determine when the order will be checked to see if it can be fulfilled.

Place Transcript Order API

This API is used to accept the transcript order for a student with a PESC transcript request (XML) from the Ellucian Cloud.

Update Order Ellucian Cloud Status API

This API is used to check the current status of a particular transcript order. It accepts input of the order ID.

System Details API

This API is used to check system availability, i.e., whether the Banner Student 8.6.2 release is installed. If it is installed, the API returns a value of *True* to the Ellucian Cloud. Otherwise, a value of *False* will be returned. It allows orders to be held until the system is next available.

Complete the order

Once the processing has returned the information, the student can continue to finish the order. The next steps are:

1. Select a delivery option.
2. View the order prior to payment.
3. Check the transcript request, and add, edit, or delete recipients.
4. Supply credit card information for payment.

Only an authorization against the student's credit card is performed at the time an order is placed. Charges are not applied until the order has been fulfilled.

5. Place the order.

The student receives an email indicating that the order has been filled, along with the unique order ID which can be used to track the order on the NSC transcript ordering website. The order ID becomes the key to processing the order in Banner. The student can log in to the NSC with his/her email address and order number and view the status of the order.

You can do the following in Banner for transcript orders:

- Review transcript order requests on the eTranscript Transcript Request Summary Form (SHAETOR).
- Review transcript order statuses on the eTranscript Status Summary Inquiry Form (SHIETSS).
- Review transcript order errors on the eTranscript SFTP Transmission Resend Form (SHASFTP).

Order transmission

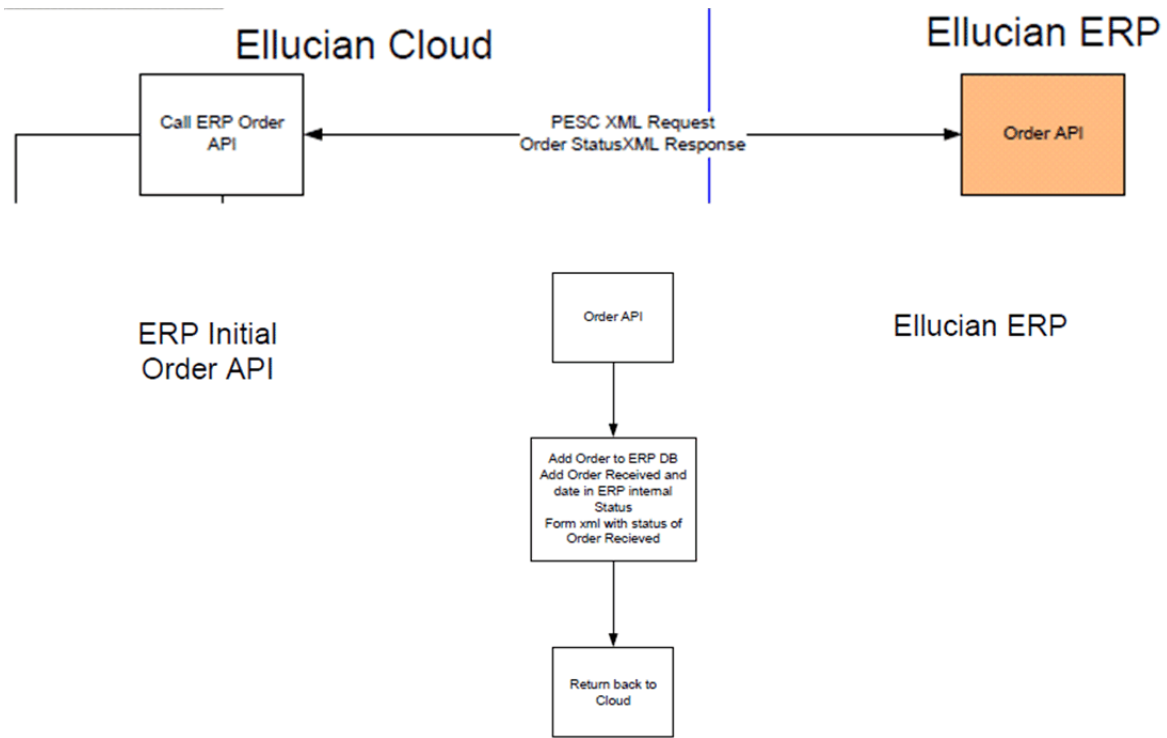
The NSC sends the PESC XML transcript request to the Ellucian Cloud, and the Ellucian Cloud passes the request to the correct Banner institution, based on the OPEID number. The transcript request contains additional XML user-defined fields that have been agreed upon by the NSC and Ellucian.

The XML is parsed and loaded into the SHRORRE temporary table. It is then further parsed and transformed before being loaded into the production tables behind the SHAETOR form. These tables are: SHBTEOT, SHRTEOD, SHRTEOS, SHRTEHP, and SHRTEDI.

Some data translations can occur during the load, such as when PESC Boolean values of *True* or *False* are loaded as *Y* or *N*. When a Banner ID is included in the order, the PIDM is retrieved and loaded to the production tables.

When the load is successful, Banner sends the full XML Transcript Response to the Ellucian Cloud, and the Ellucian Cloud sends the XML to the NSC. The response status code expected by the NSC is the order status translation “TranscriptRequestReceived”.

Here is a process flow for the initial receipt of the transcript order. In this example the Ellucian ERP is the Banner System, the ERP DB is the Banner DB, and the ERP initial order API is the Banner initial order API.



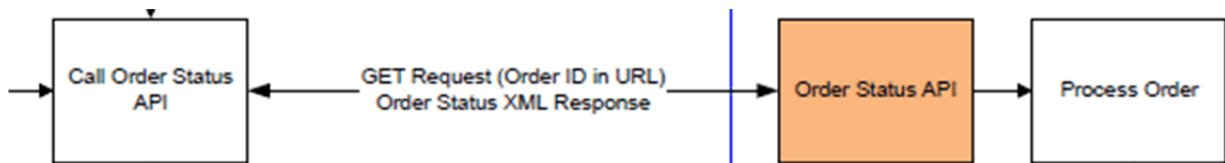
Banner processing

After Banner sends the XML with a status of “TranscriptRequestReceived”, the Ellucian Cloud sends a request to retrieve the status of the order as below.

```
GET /api/transcript-orders/{order-ID} (HTTP/1.1)
```

Banner executes the SHKEORS package that evaluates transcript order statuses and returns the full Transcript Order Status XML with appropriate status updates and additional information as needed. The Transcript Order Status XML is modeled on the Transcript Request Response XML.

Here is a diagram of the XML process flow.



Order status processing

Order status codes are used to identify the processing stages through which an order passes. Not all orders will pass through the same statuses. Some statuses will require manual intervention to continue the process. The complete status history for an order is captured on the eTranscript Order Request Form (SHATEOR) and the eTranscript Status Summary Inquiry Form (SHIETSS). A set of order status codes is delivered and stored on the eTranscript Order Status Validation Table (STVETST). They should not be changed.

eTranscript order processing is driven by order status logic (SHKEORS package) that facilitates automated order processing. The logic checks on the current order status each time the Ellucian Cloud requests an order status update. This logic does not contain any checking for the *OR - Order Received* status. The logic is used to detect each status condition is included in the package. The package also adds the new order statuses to an order's status history.

Note

In “test”, the Ellucian Cloud will request status updates from Banner every hour. In “production”, the Ellucian Cloud will request status updates from Banner once a day. ■

When a status change has occurred, the new order status is added to the SHRTEOS table. Internal status codes are delivered for internal Banner processing and are not sent to the NSC. Some statuses are sent to the Ellucian Cloud using the two-digit internal code and are not sent to the NSC. Some statuses are sent to the Ellucian Cloud with the internal code and are then sent to the NSC using the PESC third party translation value. In this case, the NSC sends an email or text message to the student to alert them to the current status of their transcript order. The full Transcript Order Status XML is sent with each status update to the Ellucian Cloud (and to NSC where appropriate). The Ellucian Cloud will request a daily status update from Banner, and exceptions will be noted. If a status is not sent back to the NSC, the order is considered to be “in process”.

Statuses are checked in the following sequence by the process: expired, needs research, attachment needs review, hold for restrictions, awaiting grades, awaiting degrees, offline (manual) record sent, canceled, ready to generate with holds, ready to generate without holds.

The SHKEORS order status package is called by the Order Status API request from the Ellucian Cloud. The order status package is also called by the eTranscript Order Request Transcript Request Summary Form (SHATEOR) under certain the following conditions and is used to determine the next status of the order.

The SHKEORS package is called by SHATEOR when:

- The Banner ID is added to an order or changed for an order.
- The **Holds Override** checkbox is checked.
- The **Attachments Reviewed** checkbox is checked.

Specific user actions can also change the order status:

- When the **Holds Override** is checked, the package is called to determine the next status to be added.
- When the **Student Not Found, Cancel Order**, or **Manual** indicators are checked, the appropriate status is added to the order.
- When the **Attachments Reviewed** indicator is checked, the package is called to determine the next status to be added.

Order status sequence exceptions

Exceptions to XML order status updates exist for the following conditions when the order is returned to being in process with the institution.

- The status is changed from *HR* to *AG*.
- The status is changed from *HR* to *AD*.
- The status is changed from *NF* to *AR*.

The first status in each pair alerted the student to a problem with the transcript order. However, the second status did not indicate that the order is back in process. The description will be changed to *TranscriptRequestReceived* for the statuses in all cases, and the values for `<UpdateThirdParty>` and `<UpdateCloudStatus>` will be updated to *True*.

Ellucian Cloud order status update

When an order arrives, the Ellucian Cloud immediately requests a status update after Banner sends back the *OR - Order Received* status. The Ellucian Cloud will then send a poll once a day for an order status update at the polling time specified in the Ellucian Cloud setup.

Daily polling occurs *except* under these conditions:

- For *AD - Awaiting Degree* and *AG - Awaiting Grades*, the request for an update will not be sent again until the day after the defined planned release date.
- For *RG - Ready to Generate*, the Ellucian Cloud waits for Banner to send back the status that comes after *RG*.
- For the following statuses: *FO - Offline Record Sent* (paper), *FF - Order Fulfilled* (electronic PDF), or *TF - Transmission Failed* (electronic PDF).

Daily Ellucian Cloud status update requests

Banner checks the current order status against the most current status in the SHRTEOS table. If no change in status is found from the previous day, the XML response sends back *False* for the <UpdateCloudStatus> value.

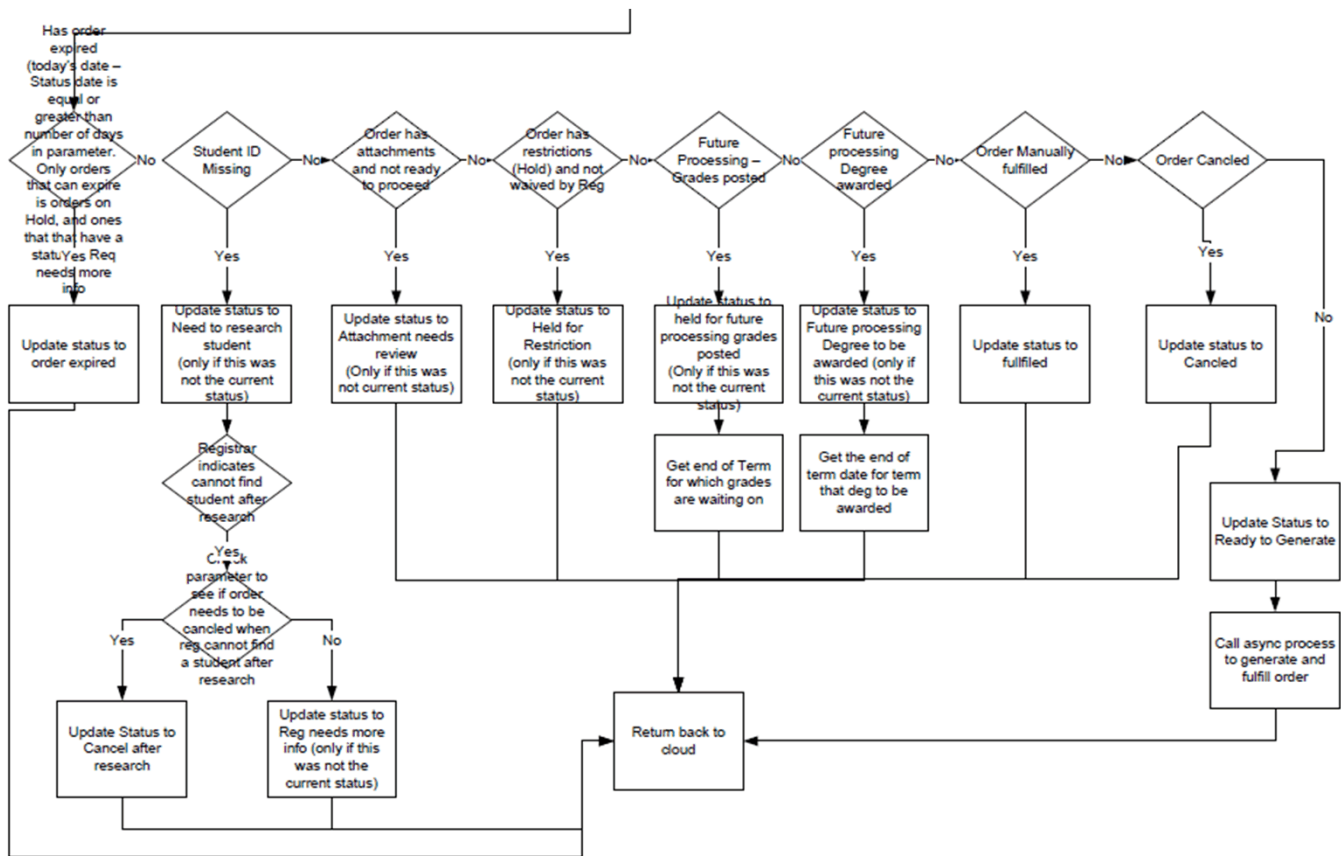
For example:

- On December 2, the status is *AR*.
- The <UpdateCloudStatus> value is *True*.
- On December 3, the status is *AR*.
- The <UpdateCloudStatus> value is *False*.

The XML user-defined extension includes the elements for updating the NSC and the Ellucian Cloud.

Order status evaluation flow

Here is the flow of the order status logic which shows the order in which status conditions are evaluated.



Order status codes

The following order statuses are used with eTranscript processing and are explained in this section:

- OR - Order Received
- NR - Needs Research
- NF - Student Not Found
- AR - Attachment Needs Review
- HR - Hold for Restrictions
- AG - Awaiting Grades
- AD - Awaiting Degrees
- RG - Ready to Generate
- GF - Generation Failed

- GC - Generation Complete
- TF - Transmission Failed
- TC - Transmission Complete
- FF - Order Fulfilled
- FO - Offline Record Sent
- EX - Order Expired
- CA - Canceled

OR - Order Received

The *OR - Order Received* status indicates that the order data has been successfully loaded to Banner after the order information has been sent to Banner using PESC XML College Transcript Request schema. The order XML is loaded and parsed into the Banner order tables.

Banner sends the order status translation “TranscriptRequestReceived” in the Transcript Request Response XML to the Ellucian Cloud, and the Ellucian Cloud sends the XML to the NSC. Banner adds *OR* as the first record in the order status history for the order.

Once the *OR* status has been communicated back to the Ellucian Cloud, the Ellucian Cloud requests an order status update, and the order status logic package (SHKEORS) determine the next status to be used. The Ellucian Cloud will request a status update once a day (with some exceptions).

All statuses other than *OR* (translation of “TranscriptRequestReceived”) are created and communicated using the Transcript Order Status XML. These statuses are discussed below. A user-defined section has been created in the Transcript Order Status XML to accommodate internal statuses.

Example XML data sent to NSC for OR status updates

```
Response for POST api/transcript-orders:
institutionId=99989900, parsedResponse=5109454-12013-11-
28T08:50:00.000-05:00RequestOriginal99989900Ellucian Banner
School827034414National Student ClearinghousePRODUCTION2013-11-
28T08:50:00.000-05:005109454-
1TranscriptRequestReceivedJANEDOEEllucian Banner
School99989900FalseTrueElectronicTrueTrue2013-11-
28T08:50:01.000-05:00OR
```

NR - Needs Research

The *NR - Needs Research* status indicates that the order has arrived without a Banner ID, and no match was found during the order process by the Find a Student API. The order status logic adds the *NR* status to the order history.

Banner sends the XML with the *NR* status to the Ellucian Cloud, but the Ellucian Cloud does not send the status to the NSC. You must research the order to determine whether a match can be found based on any additional demographic or enrollment information submitted by the student. When an exact match is found, you can update the **Banner Identification** fields in the Transcript Order Summary block of the Transcript Request Summary Form (SHAETOR). When the Banner ID is updated, the order PIDM is also set. When Banner ID is updated, order status logic is called to advance the order.

The SHAETOR form immediately determines what the next status should be and adds it to the order status history. Since the form determined that status, no updates were sent to the Ellucian Cloud or the NSC (if applicable). The next time the Ellucian Cloud polls for a status update, the last status that was sent to the Ellucian Cloud is compared to the current status. If the status has changed, Banner sends the XML with the new status to the Ellucian Cloud. If the new status is one that should be sent to the NSC, the Ellucian Cloud sends the XML with the applicable status translation to the NSC. The Ellucian Cloud then sends the XML to the NSC. The NSC informs the student of the current status. If the new status is one that is not sent to NSC, Banner sends the XML with the new status to the Ellucian Cloud, but the Ellucian Cloud does not send the status to the NSC.

Here is an example where a new status is sent to the NSC:

When the Banner ID is populated, if the status moves from *NR - Needs Research* to *HR - Hold for Restrictions*, Banner sends the XML with the *HR* status to the Ellucian Cloud and the translation of “Hold” and the hold descriptions to the NSC. The Ellucian Cloud then sends the XML to the NSC. The NSC will inform the student of the holds that exist on his/her account and provide information to contact the institution to resolve the issue.

Here is an example where a new status is not sent to the NSC:

When the Banner ID is populated, if the status moves from *NR - Needs Research* to *AR - Attachment Needs Review*, Banner sends the XML with the *AR* status to the Ellucian Cloud, but the *AR* status is not one that is sent to NSC.

Example XML data sent to NSC for NR status updates

```
<UserDefinedExtensions><ErpStatusInfo><UpdateThirdParty>False</UpdateThirdParty><UpdateCloudStatus>True</UpdateCloudStatus><StatusDateTime>2013-11-28T07:05:02.000-05:00</StatusDateTime><StatusCode>NR</StatusCode><PlannedReleaseDate></PlannedReleaseDate></ErpStatusInfo></UserDefinedExtensions>
```

NF - Student Not Found

The *NF - Student Not Found* status indicates that the order arrived without a Banner ID, and after further research, no matching student can be found. You must check the **Student Not Found** checkbox in the Transcript Order Summary block of the eTranscript Transcript Request Summary Form (SHAETOR). The order status logic adds the *NF* status to the order history.

The next time the Ellucian Cloud polls for an update, Banner sends the XML with the *NF* status to the Ellucian Cloud and the translation of “NoRecord” to the NSC. The Ellucian Cloud then sends the XML to the NSC. The NSC informs the student that the record cannot be found and provides information to contact the institution to resolve the issue.

The auto cancel number of days countdown is activated. The student has a specific number of days to contact the school in an effort to resolve the issue. If the number of auto cancel days elapses without a resolution, the status is updated to *EX - Expired* and then to *CA - Canceled*. The NSC will inform the student of the canceled order.

The next time the Ellucian Cloud polls for an update, Banner sends the XML with the *CA* status to the Ellucian Cloud and the translation of “Canceled” to the NSC. The Ellucian Cloud then sends the XML to the NSC. The NSC informs the student that the order is canceled.

If the student contacts the institution with additional information that enables the institution to determine the Banner ID, you can update the **Banner Identification** fields in the Transcript Order Summary block of the Transcript Request Summary Form (SHAETOR). When the Banner ID is updated, the order PIDM is also set. The SHAETOR form immediately determines what the next status should be and adds it to the order status history. Since the form determined that status, no updates were sent to the Cloud or the NSC.

The next time the Ellucian Cloud polls for a status update, the last status sent to the Ellucian Cloud is compared to the current status. If the status has changed, Banner sends the XML with the new status to the Ellucian Cloud. If the new status is one that should be sent to NSC, the Ellucian Cloud sends the applicable status translation to the NSC. The NSC informs the student of the current status. If the new status is one that is not sent to NSC, Banner sends the XML with the new status to the Ellucian Cloud, but the Ellucian Cloud does not send the status to the NSC.

AR - Attachment Needs Review

The *AR - Attachment Needs Review* status indicates that the student has submitted attachments with the order that require your review, and the **Attachments** indicator is checked in the Transcript Order Summary block of SHAETOR. The order status logic adds the *AR* status to the order history.

The *AR* status is added when it is the next applicable status when the order status update is processed. When the **Attachments** indicator is checked, the logic also checks if the

Attachments Reviewed indicator is unchecked. If the indicator is unchecked, the *AR* status is inserted into the order history.

When the status that immediately precedes the *AR* status is *NF - Student Not Found*, Banner sends the XML with the *AR* status to the Ellucian Cloud, and the translation of “TranscriptRequestReceived” to the NSC. The Ellucian Cloud then sends the XML to the NSC. The NSC informs the student that the order is in process.

When the status that immediately precedes the *AR* status is not *NF*, Banner sends the XML with the *AR* status to the Ellucian Cloud, but the Ellucian Cloud does not send the status to the NSC. The attachments are not brought into Banner with the order. You need to log into the NSC using the attachment URL provided in the Attachments Information block of SHAETOR. Once the attachments have been reviewed, you can check the **Attachments Reviewed** checkbox in the Attachments Information block of SHAETOR to indicate that processing can continue.

 **Note**

Some transactions may take longer than expected to process to completion, depending on the order status and the behind the scenes updates that take place.

For example, when the order status is updated to *AR*, (the **Attachments Reviewed** indicator is checked on SHAETOR), and the changes are saved, the SHKEORS order status package is called and processing continues.

SHKEORS determines whether the order is ready to be generated. If so, the SHRETRN process is run, and the PDF file is produced. Then the SHRTEOS table is updated with statuses of *RG*, *GC*, *TC*, and *FF*. ■

Example XML data sent to NSC for AR status updates

```
<UserDefinedExtensions><ErpStatusInfo><UpdateThirdParty>True</UpdateThirdParty><UpdateCloudStatus>True</UpdateCloudStatus><StatusDateTime>2013-12-10T11:50:04.000-05:00</StatusDateTime><StatusCode>HR</StatusCode><PlannedReleaseDate></PlannedReleaseDate></ErpStatusInfo></UserDefinedExtensions>
```

HR - Hold for Restrictions

The *HR - Hold for Restrictions* status indicates that active transcripts holds have been found. The order status logic adds the *HR* status to the order history. Banner sends the XML with the *HR* status, the translation of “Hold”, and the holds to the NSC and sends the specific hold code descriptions to the Ellucian Cloud. The Ellucian Cloud then sends the XML to the NSC. The NSC will inform the student of the holds that exist on their account and provide information to contact the institution to resolve the holds.

The auto cancel number of days countdown is activated. The student has a specific number of days to contact the school in an effort to resolve the holds. If the number of auto cancel days elapses without a resolution, the status is updated to *EX - Expired* and then to *CA - Canceled*.

The next time the Ellucian Cloud polls for a status update, Banner sends the XML with the *CA* status to the Ellucian Cloud and the translation of “Canceled” to the NSC. The Ellucian Cloud then sends the XML to the NSC. The NSC informs the student that the order is canceled.

If new holds have been added since the last holds status update occurred, the new holds and descriptions must be sent in a status update to the Ellucian Cloud and to the NSC in the order status XML. This could occur if holds existed but were cleared before waiting for grades or if a new transcript hold exists when the release date for grades is reached. The SHRXHLD table stores information about holds previously sent in XML updates for an order ID.

Current holds are compared to holds previously sent to determine if the hold information has changed or not, since the previous XML update about the *HR* status occurred. If new holds are found, the auto cancel number of days countdown is reset to the value on SHRTETC. The NSC informs the student that holds exist and provides information to contact the institution resolve the holds.

Holds can be designated school actionable or student actionable.

- School actionable holds pause processing and need to be addressed by administrative staff, but do not result in a message being sent to the student. A school actionable hold could be an academic issue that needs internal review, or when complete academic records may not be in Banner.
- Student actionable holds pause processing and need to be addressed by the student, such as fines that need to be paid.

If the student contacts the institution and resolves the holds, you have some options for how to proceed.

- You may manually check the **Holds Override** indicator in the Transcript Order Summary block of the Transcript Request Summary Form (SHAETOR). When the **Holds Override** indicator is checked, the SHAETOR form immediately determines what the next status should be and adds it to the order status history. Since the form determined that status, no updates were sent to the Ellucian Cloud or NSC.

The next time the Ellucian Cloud polls for a status update, the last status sent to the Ellucian Cloud is compared to the current status. If the status has changed, Banner sends the XML with the new status to the Ellucian Cloud. If the new status is one that should be sent to the NSC, the Ellucian Cloud sends the applicable status translation to the NSC. The NSC informs the student of the current status. If the new status is one that is not sent to the NSC, Banner sends the XML with the new

status to the Ellucian Cloud, but the Ellucian Cloud does not send the status to the NSC.

- You may update the **To Date** of the applicable holds on SOAHOLD to the current date. If you choose to do this, the order status will remain as *HR* until the next time the Ellucian Cloud polls for a status update.

When this poll occurs, the last status sent to the Ellucian Cloud is compared to the current status. If the status has changed, Banner sends the XML with the new status to the Ellucian Cloud. If the new status is one that should be sent to the NSC, the Ellucian Cloud sends the applicable status translation to the NSC. The NSC informs the student of the current status. If the new status is one that is not sent to the NSC, Banner sends the XML with the new status to the Ellucian Cloud, but the Ellucian Cloud does not send the status to the NSC.

Example XML data sent to NSC for HR status updates

```
<UserDefinedExtensions><ErpStatusInfo><UpdateThirdParty>True</UpdateThirdParty><UpdateCloudStatus>True</UpdateCloudStatus><StatusDateTime>2013-12-10T11:50:04.000-05:00</StatusDateTime><StatusCode>HR</StatusCode><PlannedReleaseDate></PlannedReleaseDate></ErpStatusInfo></UserDefinedExtensions>
```

AG - Awaiting Grades

The *AG - Awaiting Grades* status indicates that the student placing the order has requested the hold for grades future processing option. The order status logic adds the *AG* status to the order history.

When the status that immediately precedes the *AG* status is *HR - Hold for Restrictions*, Banner sends the XML with the *AG* status and a planned release date to the Ellucian Cloud, and sends the translation of “TranscriptRequestReceived” to the NSC. The Ellucian Cloud then sends the XML to the NSC. The NSC informs the student that the order is in process.

When the status that immediately precedes the *AG* status is not *HR*, Banner sends the XML with the *AG* status and a release date to the Ellucian Cloud. The Ellucian Cloud does not send the XML to the NSC. The release date comes from the term submitted for the hold for grades request on the eTranscript Rule Form (SHRTETC). When the term code is missing on SHRTETC, the logic uses the term end date from STVTERM as the planned release date. The Ellucian Cloud will wait until the day after the release date before requesting daily status updates on the order. Banner logic ensures that all grades have been rolled to academic history before the order is filled.

When the transcript order is submitted with a hold for grades term, the release date is retrieved from the **Hold for Grades** data element on SHRTETC for the matching term. The **Hold for Grades** data element and the *AG - Awaiting Grades* order status include the term in the order that is sent to Banner. Both require a planned release date to be included

in the XML order status that is sent back to the Ellucian Cloud. The hold for grades rule that matches the term on SHRTETC is used to send back the planned release date. The XML response is returned with the *AG* order status and the planned release date.

AD - Awaiting Degrees

The *AD - Awaiting Degrees* status indicates that the student placing the order has requested the hold for degree future processing option. The order status logic adds the *AD* status to the order history.

When the status that immediately precedes the *AD* status is *HR - Hold for Restrictions*, Banner sends the XML with the *AD* status and a planned release date to the Ellucian Cloud, and sends the translation of “TranscriptRequestReceived” to the NSC. The Ellucian Cloud then sends the XML to the NSC. The NSC informs the student that the order is in process.

When the status that immediately precedes the *AD* status is not *HR - Hold for Restrictions*, Banner sends the XML with the *AD* status and a release date to the Ellucian Cloud. The Ellucian Cloud does not send the XML to the NSC.

The release date comes from the term submitted for the hold for degree request on the eTranscript Rule Form (SHRTETC). When the term code is missing on SHRTETC, the logic uses the term end date from STVTERM as the planned release date. The Ellucian Cloud will wait until the date after the release date before requesting daily status updates on the order. Banner logic ensures that degree has been awarded before the order is fulfilled.

When the transcript order is submitted with a hold for degree term, the release date is retrieved from the **Hold for Degree** data element on SHRTECT for the matching term. The **Hold for Degree** data element and the *AD - Awaiting Degrees* order status both require a planned release date to be included in the XML order status that is sent back to the Ellucian Cloud. A student may request a transcript on April 25 but will not be awarded the degree until May 14. The Ellucian Cloud does not want to ask for a daily update on the order status from April 25 until student is awarded the degree.

The planned release date reflects the date on which degrees are expected to be awarded and is associated with the graduation term on SGASTDN. The Ellucian Cloud will not ask for an update on the order status until the day after the defined planned release date.

For example:

1. The student submits an order with a hold for degree term on April 25.
2. The XML response sends back an order status of *AD* and a `<PlannedReleaseDate>` of May 14.
3. The next request from the Ellucian Cloud for an order status will take place on May 15.

4. The Ellucian Cloud will continue to request the order status on a daily basis until the degree is awarded and the order is moved to the next status.

RG - Ready to Generate

The *RG - Ready to Generate* status indicates that no issues exist with the order, and the process to fill the order can be initiated asynchronously, that is, not occurring at predetermined or regular intervals during data communication. The order status logic adds the *RG* status to the order history.

Banner sends the XML with the *RG* status to the Ellucian Cloud. The Ellucian Cloud does not send the XML to the NSC. The Ellucian Cloud does not send a daily request for an update once the *RG* status has been received. Rather the Ellucian Cloud waits to receive the next status from Banner, and the next status will be either *TF - Transmission Failed*, *FF - Order Fulfilled*, or *FO - Offline Record Sent*.

The *RG* status triggers the creation of the transcript request record (SHTTRAN) from the Transcript Request Form (SHARQTC) and in the SHKELBD package. The record can be viewed on SHARQTC. However, the order ID is not displayed. It is stored in the SHTTRAN table for internal use. The transcript request record provides the data used to produce the output based on the output type (hardcopy or electronic PDF). The order status logic then calls the `shkebl.d.p_call_process` package to process the order ID.

Order values from the SHRTEOD table need to be set up as crosswalks to Banner values needed on SHARQTC. This cross walk for state and nation values can be done on the EDI Cross-Reference Rules Form (SOAXREF) for the STVSTAT and STVNATN cross-reference labels. Verify that the **XML** checkbox is checked for each rule on SOAXREF so the PESC value is translated.

Once the order status is *RG*, a request is sent to the queue (advanced queuing). The queue listener looks for requests and then runs either the eTranscript Export Process (SHRETRN) and the Academic Transcript (SHRTRTC), based on the transcript type, to produce the output. (SHRETRN uses the options on SHATPRT to produce electronic PDF output. SHRTRTC produces paper output.) The SHRADVQ listener process needs to be started by submitting the eTranscript Listener Start Up Process (SHRQINI) to enable processing of these requests.

You need to define a default job submission parameter set for the *ETRANSCRIPT* user on the Process Submission Controls Form (GJAPCTL) for use with eTranscript output for SHRETRN and SHRTRTC. This allows the *RG* status to automatically run the appropriate transcript process based on the output type and check for the default parameter set to use.

When the `shkebl.d.p_call_process` is called, it inserts job submission parameters with the user value of *ETRANSCRIPT*. This value is used to find the default values. The value of *ETRANSCRIPT* is delivered as seed data and is hardcoded in the SHKEBLD

package. You can change the default values for this user, but you cannot set up a different user.

 **Note**

When the *ETRANSCRIPT* parameter set is used with SHRTRTC, the Transcript Printer parameter defaults to %, so paper transcripts can be printed from the queue. ■

GF - Generation Failed

The *GF - Generation Failed* status is a Banner internal only status that indicates that an error occurred during the generation of the electronic PDF transcript output prior to initiating the SFTP transfer of an electronic file to the NSC. The order status logic adds the *GF* status to the order history. No XML is sent to the Ellucian Cloud or the NSC with a status update.

When the PDF generation fails, the SHTRAN is updated, and the .log file displays the message *PDF Transcript not created*. You must manually create the electronic PDF file. Go to SHAETOR and query on the status of *GF* in the Key block. If failed records are returned on SHAETOR, go to SHARQTC, duplicate the specific record, and run SHRETRN from job submission to process the order manually. This will automatically place the output in the directory path specified on SHAETAD, and SFTP process will occur as part of the SHRETRN process. The SHRETRN process adds the *GF* status to the order history.

GC - Generation Complete

The *GC - Generation Complete* status is a Banner internal only status that provides confirmation that the output has been generated prior to initiating the SFTP transfer of an electronic file to the NSC. The order status logic adds the *GC* status to the order history. No XML is sent to the Ellucian Cloud or the NSC with a status update.

TF - Transmission Failed

The *TF - Transmission Failed* status is a Banner internal only status that indicates that the electronic transmission of the file to the NSC drop box has been unsuccessful, and an error code has been returned. Errors can be returned for bad syntax, incorrect authorization header, forbidden request, URL not found, internal server error.

The SHRETRN process adds the *TF* status to the order history. Banner sends the XML with the *TF* status to the Ellucian Cloud after the SHRETRN process is run by submitting another request to the queue to run SHRPOST. The Ellucian Cloud does not send the XML to the NSC. You can manually resend the order using the SHASFTP form. You can manually resend individual orders or all orders.

If the SFTP process fails, the *TF* status is added to the order status history. A record is written to the SHRSFTP table, and the generated PDF is stored in a BLOB column associated with order ID. You can manually resend the order using the SHASFTP form.

TC - Transmission Complete

The *TC - Transmission Complete* status indicates that the electronic transmission of the file to the NSC drop box has been successful, and a success code has been returned. The SHRETRN process adds the *TC* status to the order history.

The *TC* status is a Banner internal only status that provides confirmation that the output for the electronic file has been successfully received by the NSC drop box before the Ellucian Cloud is updated that the order has been fulfilled. No XML is sent to the Ellucian Cloud or the NSC with a status update.

FF - Order Fulfilled

The *FF - Order Fulfilled* status indicates that the order data has been successfully fulfilled, and the electronic file has been sent to the NSC drop box. The SHRETRN process adds the *FF* status to the order history.

Banner sends the XML with the *FF* status to the Ellucian Cloud after the SHRETRN process is run by submitting another request to the queue to run SHRPOST. The translation of “Transcript Sent” to the NSC. The Ellucian Cloud then sends the XML to the NSC. The NSC informs the student that the request has been fulfilled electronically.

Example XML data sent to NSC for FF status updates

```
<UserDefinedExtensions><ErpStatusInfo><UpdateThirdParty>False</UpdateThirdParty><UpdateCloudStatus>False</UpdateCloudStatus><StatusDateTime>2013-12-10T11:47:21.000-05:00</StatusDateTime><StatusCode>FF</StatusCode><PlannedReleaseDate></PlannedReleaseDate></ErpStatusInfo></UserDefinedExtensions>
```

FO - Offline Record Sent

The *FO - Offline Record Sent* status indicates that exceptions can be made to electronic orders to fill them manually. In this case, a hardcopy transcript is produced. (Paper transcripts are considered as fulfilled “offline”.) Either the SHRETRN process or the SHRTRTC process adds the *FO* status to the order history. When an order is filled manually, you must check the **Manual Processing** checkbox in the Transcript Order Summary block on SHAETOR. The SHAETOR form adds the *FO* status to the order status history.

When SHRTRTC is run manually, the format XXXXXXXXXX/000 must be used for the transcript request, such as 12345/09, 123456789/01, or N00014401/11.

- Positions one through nine (XXXXXXXXXX) are available for the ID number. The ID number may not use the entire nine digits. It can be shorter than nine digits.
- The next position (/) is a separator. This position will float, depending on the ID length.
- The next positions (000) are available for the sequence number or transcript request number. The transcript request number may not use all three positions. It can be shorter than three digits. These positions will also float based on the length of the ID and the position of the separator.

Banner sends the XML with the *FO* status to the Ellucian Cloud after SHRETRN or SHRTRTC is run by submitting another request to the queue to run SHRPOST. The translation of “OfflineRecordSent” to the NSC. The Ellucian Cloud then sends the XML to the NSC. The NSC informs the student that the request has been fulfilled manually (not electronically).

Example XML data sent to NSC for FO status updates

```
<UserDefinedExtensions><ErpStatusInfo><UpdateThirdParty>False</
UpdateThirdParty><UpdateCloudStatus>False</
UpdateCloudStatus><StatusDateTime>2013-12-10T11:48:55.000-
05:00</StatusDateTime><StatusCode>FO</
StatusCode><PlannedReleaseDate></PlannedReleaseDate></
ErpStatusInfo></UserDefinedExtensions>
```

EX - Order Expired

The *EX - Order Expired* status is a Banner internal only status that indicates that the order has expired. The order status logic adds the *EX* status to the order history. No XML is sent to the Ellucian Cloud or the NSC with a status update. Immediately after the *EX* status is added to the order history table, Banner adds a *CA - Canceled* status to the order history. Banner then sends the XML with the *CA* status to the Ellucian Cloud and the translation of “Canceled” to the NSC. Finally, the Ellucian Cloud sends the XML to the NSC.

CA - Canceled

The *CA - Canceled* status indicates that the order has been canceled due to expiration or was manually canceled by a user. You can manually cancel an order by checking the **Cancel Order** checkbox in the Transcript Order Summary block on SHAETOR. The SHAETOR form adds the *CA* status to the order status history

Banner sends the XML with the *CA* status to the Ellucian Cloud and the translation of “Canceled” to the NSC. The Ellucian Cloud then sends the XML to the NSC. The NSC informs the student that the order has been canceled.

Example XML data sent to NSC for CA status updates

```
<UserDefinedExtensions><ErpStatusInfo><UpdateThirdParty>True</UpdateThirdParty><UpdateCloudStatus>True</UpdateCloudStatus><StatusDateTime>2013-12-07T13:56:44.000-05:00</StatusDateTime><StatusCode>CA</StatusCode><PlannedReleaseDate></PlannedReleaseDate></ErpStatusInfo></UserDefinedExtensions>
```

Generate order output

The eTranscript Export Process (SHRETRN) is used to produce the transcript order output in PDF format. This is a Java process that can be run from job submission (for exception processing only) by ID and sequence number, transcript type, address selection date, address priority and type, and Order ID. It is also run when a request is sent to the queue by the SHKEORS order status package to process the transcript request.

SHRETRN produces XML and PDF output. The XML output is not PESC compliant and is used for the PDF generation only. It contains Banner values instead of the PESC values produced by the SHRPESE process. A set of 50 user-defined elements is provided to accommodate the data elements from the SHATPRT print option rules.

Note

The SHATPRT print option for **Student Centric Period Statistics** is not available for use with PDF transcripts at this time. ■

A baseline PDF template file (`shretrn_template.xls`) is delivered for use with SHRETRN. An Adobe Formatting Objects Processor (FOP) tool is used to create a stylesheet. The stylesheet can be used once the data has been transformed to XML. The XML is then transformed to a PDF file. The output is not PESC XML. The actual Banner values are generated in the output for the SHATPRT data elements (print options) with the exception of student centric periods. You can create your own templates/stylesheets and link them to Banner transcript types.

Note

The eTranscript process produces paper and PDF output. There are references to XML throughout this document, because XML is used to create the PDF output, and it is used for communication between Banner, the Ellucian Cloud, and the NSC. This release of eTranscript functionality does not support production of an XML transcript. ■

eTranscript supports the use of multiple stylesheets, but the number of different PDF output types you use depends on how your institution configures the transcript ordering page with the NSC and how the PESC transcript types and purposes are mapped to Banner transcript types.

The eTranscript PDF Printer Rule Form (SHRPDFT) is used to map the Banner transcript type to specific PDF templates for electronic PDF transmission and to specific printers for

paper (hardcopy) transcripts. You can create customized templates for your institution using the baseline template as a model, and then link the templates to Banner transcript types on SHRPDFT.

SHRETRN uses SFTP transfer to automatically send the electronic PDF output to the NSC drop box. If the SFTP process fails, an automatic number of retries is built in. Three retries are attempted, each 60 seconds apart. When the retries fail, the eTranscript SFTP Transmission Resend Form (SHASFTP) displays the errors and allows you to attempt a manual resend of the files individually or in a group. A record is written to the SHRSFTP table, and the generated PDF is stored in a BLOB column.

Once the electronic PDF is received by the NSC, institution branding can be added for the school's logo and an electronic signature can be displayed.

- When a PDF transcript is generated, the **Status** field in the Electronic Transcript Status section of SHARQTC is updated with existing baseline codes such as *P1 - XML Transcript Exported* or *P2 - XML Export had Errors*.
- The **Transcript Sent Date** and **Transcript Print Date** fields in the Transcript Request information are also updated.

When the PDF generation fails during the SHRETRN process, updates occur as follows:

- The **Run Date**, **Status**, and **Status Date** fields (in the Electronic Transcript Status information) are updated on the SHARQTC form and in the SHTTRAN table. The **Status** field displays *XML Transcript Exported* when the XML is generated but PDF generation fails. The **Status** field displays *XML Export had errors* when the XML generation fails.
- The statuses in the SHRTEOS table are updated to *GF* and *TF*.
- The log file contains the error message *PDF Transcript not created*.

You will need to manually process the record after the reason for the PDF generation failure has been corrected.

1. Access SHARQTC and duplicate the record. The SHTTRAN_TYPE field must be *D*.
2. Run SHRETRN from job submissions with the appropriate parameters.

Transform XML to PDF

When XML content is converted to PDF output, a series of changes takes place. At a high level, the XML document is first converted to Extensible Stylesheet Language Formatting Objects (XSL-FO) markup language using an Extensible Stylesheet Language Transformations (XSLT) stylesheet. The XSL-FO object is entered into a Formatting Objects Processor (FOP) engine, where it is converted to a PDF file.

For example, here is a sample XML file that will go through the process of XML to XSL-FO with XSLT to FOP to PDF.

```
<name>Frank</name>
```

An XSLT stylesheet is needed to convert the XML to XSL-FO, in order to produce the PDF file. Next, the FOP reads the generated XSL-FO document and formats it to be a PDF document.

Here is the minimal XSLT stylesheet that is needed to take the name (Frank) and produce a document that reads *Hello Frank!* The document is saved as `name2fo.xml`.

```
<?xml version="1.0" encoding="utf-8"?>
<xsl:stylesheet version="1.0"
  xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
  xmlns:fo="http://www.w3.org/1999/XSL/Format">
<xsl:output method="xml" indent="yes"/>
<xsl:template match="/">
  <fo:root>
    <fo:layout-master-set>
      <fo:simple-page-master master-name="A4-portrait"
        page-height="29.7cm" page-width="21.0cm"
        margin="2cm">
        <fo:region-body/>
      </fo:simple-page-master>
    </fo:layout-master-set>
    <fo:page-sequence master-reference="A4-portrait">
      <fo:flow flow-name="xsl-region-body">
        <fo:block>
          Hello, <xsl:value-of select="name"/>!
        </fo:block>
      </fo:flow>
    </fo:page-sequence>
  </fo:root>
</xsl:template>
</xsl:stylesheet>
```

The SHRETRN process uses this same functionality to produce the eTranscript PDF output. XML is produced, then the `PESCXMLPdfHelper.java` file is used to transform the XML through the XSLT and XSL-FO, input the data into the FOP engine, and produce the PDF file. A default template XSLT stylesheet is delivered to format the PDF.

Modify the PDF template

The `shretrn_template.xml` file is the default template for eTranscript PDF output. You can modify the `shretrn_template.xml` file to change the format of the PDF output. To do this, rename the file with a version number such as, `shretrn_template_1_0.xml`, make your changes, and store the file in the `$(DATA_HOME)/student` directory. You also need to associate the modified, renamed template with the transcript type on SHRPDFT by entering the filename in the **PDF Template** field for the transcript type.

When SHRETRN is run, the process checks SHRPDFT for the transcript type and associated `.xml` template file. If the `.xml` file does not exist, the default, delivered `shretrn_template.xml` file is used to format the PDF output. If a `.xml` file is found, the process then checks `$(DATA_HOME)/student` directory for a `.xml` file to use. If no file is found in the directory, the `shretrn_template.xml` file is used.

You can add new fields to the PDF output by selecting the User-Defined Extensions (UDE) fields on SHATPRT (**College, Student, Academic Record, Course**). Use SQL to modify the following UDE procedures in the SHKETRN package.

- `p_main_ude_element`
- `p_student_ude_element`
- `p_acrec_ude_element`
- `p_acadsess_course_ude_element`

Additional code can be added to display more fields on the PDF transcript. As already discussed, you can copy the default template, rename the file, and make your changes. Refer to the *PESC XML College Transcript Implementation Guide* for more information about user-defined elements.

Existing custom output

If your institution already has custom transcript output, you need to examine the code that calls the processes to generate paper or PDF output and make local modifications to call your custom or third party processes.

For electronic PDF, you will need to ensure that custom or third party code generates the required PDF filename convention and places the file in the required directory.

PDF filename

The PDF file that is generated has a required naming convention:

```
Ellucian_Transcript_OPEID#_ordertracking#_timestamp
```

- The OPEID number uses an eight digit format.

- The order tracking number uses the format `Order#-suborder` (123456-1).
- The timestamp uses the format `yyyymmddhhmmss`.

For example:

```
Ellucian__Transcript_00123456_1234-1_ 20120419124512.pdf
```

SFTP setup

To set up SFTP for automated and manual transcript processing, enter the following information on the eTranscript Administrator Configuration Form (SHAETAD) for use with the third party vendor, in this case the NSC. The NSC provides these values to the institution.

1. Host Name

Enter the name of the third party vendor's host computer or server that will accept the eTranscript file.

2. Username

Enter the username or ID used to log into the third party vendor's host computer.

3. SSH Directory

Enter the location of the institution server that stores the `id_rsa` and `id_rsa.pub` identity files. The `id_rsa` file is used to dynamically generate the password for logging into the third party vendor's host computer.

4. Passphrase

Enter the passphrase used to access the identity (`id_rsa`) file.

If the SFTP process fails, review the `.log` file for error messages, such as the `shretrn_XXXXXX.log` file in the `JOBSUB` directory. This directory is used for sending and resending transcript PDF files.

Oracle advanced queue processing

Advanced queue processing can be used to connect transcript printing in Banner to the vendor request for eTranscript. The `soo_etran_payload.sql`, `squegtabe_080602_01.sql`, and `squegtabe_080602_02.sql` scripts are run during the Banner Student 8.6.2 upgrade to establish the administrative queues, queue tables, and roles for eTranscript advanced queuing.

Queues are started with the eTranscript Listener Start Up Process. This can be run through job submission. It calls multiple occurrences of the eTranscript Advanced Queue Process

(SHRADVQ) as the listener process. Queues must be restarted any time the Banner system is down.

Refer to the “Oracle Advanced Queue Processing” topic in the “Registration” chapter of the *Banner Student 8.6 User Guide* for more information on using advanced queues.

GTVSDAX rule

The *QUEUETIME* GTVSDAX rule can be used with advanced queue processing for eTranscripts to set the queue time out.

Internal Code	Internal Code Group	External Code	Description
QUEUETIME	QUEUETIMEOUT	300	SFRADVQ/SHRADVQ timeout in seconds

The *QUEUETIME* rule is used to change the timeout period for the advanced queue process. The delivered default timeout period is 300 seconds (five minutes). You need to set the rule to the timeout value you choose for the queue to work with the advanced queuing. The SOKADVQ package uses the *QUEUETIME* rule.

The *QUEUETIME* rule is equivalent to the *PIPETIME* GTVSDAX rule. The *QUEUETIME* rule states the amount of time the user is willing to wait for a response for eTranscript processing while using the advanced queuing option, while the *PIPETIME* rule denotes the amount of time the user is willing to wait for a response for the compliance processing while using pipes processing. (Pipes processing is not supported for eTranscript processing.)

Advanced queuing is a requirement of eTranscript processing. The GTVSDAX rule is not delivered with the Banner Student 8.6.2 release and must be verified during the upgrade process.

Oracle object types for eTranscript

One new high-level, complex, Oracle object type is used that relies on dependent, lower-level object types for their creation. The object type is `so_etranscript_payload`. This object represents the communication payload that is sent across the unique, Oracle queues also used with this processing. The two Oracle queues are: `ETRANSSCRIPT_REQUEST_Q` and `ETRANSSCRIPT_RESPONSE_Q`.

ETRANSSCRIPT_REQUEST_Q

The `ETRANSSCRIPT_REQUEST_Q` object is populated when the Banner SHKEBLD package calls the SOKADVQ package to run either the SHRETRN or SHRTRTC process and produce a transcript. This informational payload is sent from Banner across the `ETRANSSCRIPT_REQUEST_Q` queue so that the “listener process”, the eTranscript Advanced Queue Process (SHRADVQ), can submit the transcript request.

Once the transcript request has been processed and the order status is updated *FF* or *FO*, the queue is also used to send a message to SHRADVQ to call the eTranscript Post Cloud Process (SHRPOST) to send the response to the Ellucian Cloud.

Variable Name	Underlying Oracle Object Type
COMMAND_TYPE	BANINST1 . SO_ETRANSSCRIPT_PAYLOAD .SF_COMMAND_TYPE
CORRELATIONID	BANINST1 . SO_ETRANSSCRIPT_PAYLOAD . SF_CORRE LATION_ID
ONE_UP_NO	BANINST1 . SO_ETRANSSCRIPT_PAYLOAD . SF_ONE_UP_NO
STATUS	BANINST1 . SO_ SO_ETRANSSCRIPT_PAYLOAD . SF_STATUS

ETRANSSCRIPT_RESPONSE_Q

The ETRANSCRIPT_RESPONSE_Q object is populated by the Banner eTranscript Advanced Queue Process (SHRADVQ), the “listener process”, once the call to either SHRETRN or SHRTRTC has been executed. It can be used in the future to perform error handling routines if desired.

ETRANSSCRIPT_REQUEST_QTAB

The ETRANSCRIPT_REQUEST_QTAB object is the queue table that holds the request messages written to the queue.

ETRANSSCRIPT_RESPONSE_QTAB

The ETRANSCRIPT_RESPONSE_QTAB object is the queue table that holds the response messages written to the queue.

Manual transmission

The SHRETRN process generates a PDF transcript when the order status is set to *RG - Ready to Generate* for the first time. SHRETRN also performs the SFTP to the NSC server location that has been defined on SHAETAD. If the transmission fails, the error message is logged in the `.log` file in JOBSUB folder, and a record is created in the SHRSFTP table for the order. The generated PDF file is stored in a BLOB column.

You can use the SHASFTP form to initiate the manual transmission of the PDF file. The PDF object is retrieved from the SHRSFTP table and sent to the JOBSUB location from where it is transmitted to the NSC server location.

Ellucian Cloud maintenance

When you are using the Ellucian Cloud in production, there will be a maintenance schedule for the Cloud services.

New forms

The following forms are new for this enhancement and are used to manage and monitor eTranscript orders.

- eTranscript Delivery Method Validation Form (STVETME)
- eTranscript PESC Transcript Purpose Validation Form (STVETPU)
- eTranscript Electronic Transcript Status Validation Form (STVETST)
- eTranscript PESC Transcript Type Validation Form (STVETTP)
- eTranscript Administrator Configuration Form (SHAETAD)
- eTranscript Transcript Request Summary Form (SHAETOR)
- eTranscript SFTP Transmission Resend Form (SHASFTP)
- eTranscript Status Summary Inquiry Form (SHIETSS)
- eTranscript PDF Printer Rule Form (SHRPDFT)
- eTranscript Rule Form (SHRTETC)

eTranscript Delivery Method Validation Form (STVETME)

This form is used to create and maintain third party transcript delivery method values from PESC. These values are delivered. No user values should be entered.

Refer to the “Seed Data” topic in the “eTranscript - Technical” section of the release guide for a list of delivered values.

Fields	Descriptions
Delivery Method Code	Delivery method code for the eTranscript, such as <i>FAX</i> , <i>EXPRESS</i> , <i>MAIL</i> , <i>OVERNIGHT</i> , <i>ELECTRONIC</i> .
Description	Delivery method code description.
User ID	ID of user that added or updated the record.

Fields	Descriptions
Activity Date	Date the record was added or updated.

eTranscript PESC Transcript Purpose Validation Form (STVETPU)

This form is used to create and maintain third party transcript type purpose values from PESC. These values are delivered. No user values should be entered.

Refer to the “Seed Data” topic in the “eTranscript - Technical” section of the release guide for a list of delivered values.

Fields	Descriptions
PESC Transcript Type Code	PESC transcript purpose code to be used with eTranscript, such as <i>TRANSFER</i> , <i>SCHOLAR</i> , <i>ADM</i> , <i>EMPLOYM</i> .
Description	Transcript purpose code description.
User ID	ID of user that added or updated the record.
Activity Date	Date the record was added or updated.

eTranscript Electronic Transcript Status Validation Form (STVETST)

This form is used to create and maintain transcript order status codes. These values are delivered. No user values should be entered. The SHKEORS package uses the order status codes to drive the automated order processing and identify the processing stages of an order.

Refer to the “Seed Data” topic in the “eTranscript - Technical” section of the release guide for a list of delivered values.

Fields	Descriptions
Order Status Code	Transcript order status code.
Description	Transcript order status code description.
Third Party Translation	Transcript order translation value to be sent for processing.

Fields	Descriptions
Send to Vendor	Checkbox used to indicate a transcript order with this status should be sent to the vendor for processing.
Send to Cloud	Checkbox used to indicate a transcript order with this status should be sent to the Ellucian Cloud for processing.
Activity Date	Date the record was added or updated.

eTranscript PESC Transcript Type Validation Form (STVETTP)

This form is used to create and maintain third party transcript type values from PESC. These values are delivered. No user values should be entered.

Refer to the “Seed Data” topic in the “eTranscript - Technical” section of the release guide for a list of delivered values.

Fields	Descriptions
PESC Transcript Type Code	PESC transcript type code to be used with eTranscript, such as <i>GRADUATE, LAW, UNDERGRADUATE, DENTAL</i> .
Description	Transcript type code description.
User ID	ID of user that added or updated the record.
Activity Date	Date the record was added or updated.

eTranscript Administrator Configuration Form (SHAETAD)

This form is used to store administrator configuration information for Ellucian Cloud configuration and file transfer configuration.

When a transcript order is at the *RG* (Ready to Generate) status, the order is authenticated to the Ellucian Cloud. The appropriate API is called to update the status to the next appropriate status associated with the production of the requested output for the order. Possible statuses used for the update are: *GC* (Generation Complete), *GF* (General Failed), *TC* (Transmission Complete), *TF* (Transmission Failed), *FO* (Order Fulfilled Offline), and *FF* (Order Fulfilled). (*FO* is only used by the paper transcript, and *FF* is only used by the electronic PDF transcript.)

SFTP file transfer is used send the electronic PDF output from the SHRETRN process to the third party vendor dropbox, in this case the NSC/

This form contains the following blocks:

- File Transmission Configuration Block
- Ellucian Cloud Connection Block

File Transmission Configuration Block

Use this block to set up file transmission configuration data for eTranscript transactions. This configuration automates the sending of the electronic PDF output after it is generated. The values used are defined during the upgrade and installation process.

The identify file referenced in the **SSH Directory** and **Passphrase** fields is the private key that resides on the application server. After the public/private key pair is generated, the public key is sent to the NSC.

Fields	Descriptions
Host Name	Name of the host where the eTranscript will be sent using the SFTP process, such as <i>ftps.nslc.org</i> . This is provided by the NSC.
Username	Name used for the SFTP account. This is provided by the NSC.
SSH Directory	Directory location of the identity file used for the SFTP process. This is provided by the NSC.
Passphrase	Encrypted passphrase for the identify file used for the SFTP process. This is displayed as <i>*****</i> (asterisks). Optional. This is provided by the NSC.

Ellucian Cloud Connection Block

Use this block to set up the Ellucian Cloud connection configuration for the eTranscript transactions. This configuration is used to authenticate a user to the Ellucian Cloud when order statuses are sent back that are specific to an order being filled.

Fields	Descriptions
Cloud URL	URL for the Ellucian Cloud, such as <i>https://etranscript.elluciancloud.com</i> .

Fields	Descriptions
Cloud Username	Username that will be authenticated to the Ellucian Cloud when the API is called to send back order statuses of <i>TF</i> , <i>FF</i> , and <i>FO</i> . This username is provided by the Ellucian Cloud when your setup is complete.
Cloud Username Password	Encrypted password for the Ellucian Cloud username. This is displayed as ***** (asterisks). This username password is provided by the Ellucian Cloud when your setup is complete.
Confirm Password	Re-entered, encrypted password for the Ellucian Cloud username. This field is a form field only, not a database field. The user is required to re-enter the Cloud Username Password value to validate the entry.

eTranscript Transcript Request Summary Form (SHAETOR)

This form is used to view all data related to an eTranscript order and to maintain specific elements of the order.

This form contains the following blocks:

- Key Block
- Transcript Order Summary Block
- Student Information Block
- Enrollment History Block
- Attachment Information Block
- Recipient/Order Information Block
- Order History Block

Key Block

Use the Key Block to enter information and review transcript requests for order ID and student ID. You can query as follows:

- Use the **Order ID** to query on a specific order ID.
- Use the **Order From Date** and **Order To Date** to query on orders placed in a certain date range.
- Use the **Status** to query on orders where the most current status is a specific status.

- Use the **ID** to query on a particular Banner ID.
- Use the **Unverified ID** to query on an ID that was manually entered by the student on the order form.

Fields	Descriptions
Order ID	Unique ID associated with the eTranscript order. This number is assigned by the NSC and consists of an order number and a suborder number.
Order From Date	Transcript order date.
Order to Date	Transcript received date.
Status	Transcript order status List eTranscript Order Status Validation (STVETST)
ID	Verified Banner student ID. List Person Search Form (SOAIDEN)
Unverified ID	ID submitted manually by the student on the order that may or may not be a valid Banner ID.

Transcript Order Summary Block

This block is used to review the transcript order summary information and to set various indicators for specific actions such as overriding holds, canceling an order, assigning a Banner ID to the order, marking the order for manual processing, or indicating that the student who placed the order was not found in Banner. Records with the **Rush** indicator checked are sorted first. Standard records are then displayed, newest to oldest.

The SHBTEOD table supports this block. This block can be accessed using the Transcript Order Summary tab.

Note

You can not update the **Holds Override**, **Manual Processing**, **Cancel Order**, or **Banner ID** fields when the current order status has reached any of the following statuses: *EX, CA, RG, FF, FO, TF, GF, GC*, or *TC*. ■

Fields	Descriptions
Order ID	<p>Unique ID associated with the eTranscript order.</p> <p>This number is assigned by the NSC and consists of an order number and a suborder number.</p>
Order Date	Order date of transcript request.
Last Name	Student's last name.
First Name	Students' first name.
Unverified ID	ID submitted by the user that may or may not be a valid Banner ID.
Banner Identification Last Name	Student's Banner last name.
Banner Identification First Name	Student's Banner first name.
Banner Identification Unverified ID	Student's unverified Banner ID.
Status	Current status code and description for the transcript request.
Holds Override	Checkbox used to indicate that active transcript holds can be overridden and order processing can continue.
Cancel Order	Checkbox used to indicate that the order has been canceled. This stops the order at any step prior to the <i>RG - Ready to Generate</i> status.
Rush	Checkbox used to indicate that the order is a rush order.
Student Not Found	<p>Checkbox used to indicate that the student for the order has not been found or that the order arrived without a Banner ID. The order status is updated to <i>NF - Student Not Found</i>.</p> <p>Once this indicator is checked, it cannot be reset. It will be reset by the form when a valid Banner ID is assigned to the order.</p>

Fields	Descriptions
Manual Processing	Checkbox used to indicate that manual processing is needed for the order. The order is stopped, and the user must manually create a record on SHARQTC and print the transcript. Once this indicator is checked, it cannot be reset.
Instructions	Checkbox used to indicate that special instructions exist for the order.
Attachments	Checkbox used to indicate attachments exist for the order.

Student Information Block

This block is used to review demographic and contact information for the student. The Key Block information for order ID, order date, last name, and first name is defaulted in. When no matching Banner ID has been found, you can enter the student information to research a student match or to contact the student.

The SHRTEOD table supports this block. This block can be accessed using the Student Information tab.

Name and Address

This section of the Student Information block displays the name, address, birth date, SSN, phone, and email information for the student.

Fields	Descriptions
Former Last Name	Student's former last name.
Former First Name	Student's former first name.
Former Middle Name	Student's former middle name.
Birth Date	Student's date of birth.
SSN/SIN	Student's SSN or SIN.
Phone Number	Student's phone number.
Email Address	Student's email address.
Street Address 1	Address line one for student's address.

Fields	Descriptions
Street Address 2	Address line two for student's address.
City	City for student's address.
State or Province	State or province for student's address.
ZIP or Postal Code	ZIP or postal code for student's address.
Nation	Nation for student's address.
Update Contact	Checkbox used to indicate that the student who submitted the order will allow contact information to be updated.

Enrollment History Block

This block is used to review enrollment information for the student for institutions, programs, degrees, and certificates with start, end, and award years. You can also see if the student is currently enrolled and the start and end attendance years. When no matching Banner ID has been found, you can enter the enrollment information to research a student match or to contact the student. The Key Block information for order ID, order date, last name, and first name is defaulted in.

The SHRTEOD table supports this block. This block can be accessed using the Enrollment History tab. The SHRTEHP table supports the school and program data. The SHRTEDI table supports the degree and certificate data.

Fields	Descriptions
School/ Program Name	Institution and/or program the student enrolled in.
Start Year	Start year of enrollment.
End Year	End year of enrollment. This field can be <i>Null</i> if it is not populated by the NSC.
Degree/ Certificate	Degree and/or certificate the student was working toward.
Award Year	Year degree and/or certificate was awarded.
Currently Enrolled	Checkbox used to indicate that the student is currently enrolled.

Fields	Descriptions
Start Year of Attendance	Start year of current enrollment.
End Year of Attendance	End year of current enrollment.

Attachment Information Block

This block is used to review attachment information for the transcript order, such as whether attachments have been reviewed, where they are located for review, and any other instructions. The Key Block information for order ID, order date, last name, and first name is defaulted in.

Note

Attachments are not stored in Banner. The user must log into the NSC to access attachments. ■

The SHRTEOD table supports this block. This block can be accessed using the Attachment Information tab.

Fields	Descriptions
Attachments	Checkbox used to indicate that attachments exist for the transcript request.
Attachments Reviewed	Checkbox used to indicate that the attachments have been reviewed.
Attachment URL	URL for the location where the attachments can be found.
Special Instructions	Free format field used to enter any special instructions regarding the transcript attachments.

Recipient/Order Information Block

This block is used to review the recipient address information as well as order information, special instructions, and comments about the transcript order. This information is used to create the request on SHARQTC. The Key Block information for order ID, order date, last name, and first name is defaulted in.

The SHRTEOD table supports this block. This block can be accessed using the Recipient/Order Information tab.

Recipient and Address

This section of the Recipient/Order Information block displays the recipient name, address, phone, fax and email information, as well institution code and the person to whose attention the transcript should be directed.

Fields	Descriptions
Recipient	Name of transcript recipient, such as the institution or employer.
Attention	Name of person to whose attention the transcript should be directed.
Phone Number	Phone number of recipient.
Fax Number	Fax number of recipient.
Email Address	Email address of recipient.
School Code	School code of recipient institution.
Street Address 1	Street line 1 of recipient address.
Street Address 2	Street line 2 of recipient address.
City	City of recipient address.
State	State or province of recipient address.
ZIP or Postal Code	ZIP or postal code of recipient address.
Nation	Nation of recipient address.

Order Information

This section of the Recipient/Order Information block is used to review order and delivery information for the transcript. This block can be accessed using the Order Information tab. This is a child block of the Recipient and Address block.

Fields	Descriptions
Transcript Type	Type of transcript that was ordered.
Transcript Purpose	Purpose of the transcript that was ordered.

Fields	Descriptions
Electronic Format	Electronic format requested for the order.
Delivery Method	Delivery method requested for the order.
Quantity	Number of transcripts ordered.
Sealed Envelope	Checkbox used to indicate that the order envelope should be sealed.
Hold for Grades	Checkbox used to indicate that the order should be held for grades that are forthcoming.
Term	Term in which grades are due that are to be included on the transcript.
Hold for Degree	Checkbox used to indicate that the order should be held for a degree that is forthcoming.
Degree	Degree that is to be awarded and included on the transcript.

Special Instructions

This section of the Recipient/Order Information block is used to enter and review special instructions for the order and the recipient. This block can be accessed using the Special Instructions tab. This is a child block of the Recipient and Address block.

Fields	Descriptions
Special Instructions	Free format field used by the student to enter any special instructions for the transcript order. Maximum length is 255 characters.

Comments Block

This block is used to enter and review additional comments for the order and the recipient. This block can be accessed using the Comments tab. This is a child block of the Recipient and Address block.

Fields	Descriptions
Comments	Free format field used by the Registrar's office to enter any comments for the transcript order. Maximum length is 255 characters.

Order History Block

This block is used to review the transcript order history and any transcript holds for the student. The Key Block information for order ID, order date, last name, and first name is defaulted in.

The SHRTEOS table supports this block. This block can be accessed using the Order History tab.

Status History

This section of the Order History Block is used to review transcript status order information. Status records are displayed in reverse chronological order from newest to oldest.

Fields	Descriptions
Status	eTranscript order status code.
	List eTranscript Order Status Validation (STVETST)
Status Description	eTranscript order status code description.
Status Date	Date status code was added or updated.

Transcript Holds

This section of the Order History block is used to review transcript hold information. The SPRHOLD table supports this section of the block. Holds can be viewed on SOAHOLD/

Fields	Descriptions
Hold	Hold code for the transcript hold.
Hold Description	Hold code description for the transcript hold.

eTranscript SFTP Transmission Resend Form (SHASFTP)

This form is used to display SFTP transmission errors and allow manual resending of the order. You can resend individual files or resend all files. This form contains the Resend block.

Resend Block

Use the Resend Block to review records and resend specific records or groups or records.

Fields	Descriptions
Resend All	Checkbox used to indicate that all records can be resent.
Resend	Checkbox used to indicate that a specific record can be resent.
Order ID	Unique ID associated with the eTranscript order. This number is assigned by the NSC and consists of an order number and a suborder number.
ID	Student's Banner ID number.
Student Name	Student's name.
Recipient Name	Transcript recipient's name.

eTranscript Status Summary Inquiry Form (SHIETSS)

This form is used to display the most recent statuses for all the eTranscript activity based on the document ID and date. You can enter the ID or order ID in the Key block or leave the Key Block blank and return all records. Records are displayed using the SHVTEOS Banner view.

You can select a student's eTranscript record and double click to see details for all the statuses on that record. Statuses are displayed in date order with the most recent status listed first.

Banner ID, last name, and first name information is displayed as follows by this form.

- When the XML transcript file is initially loaded to the tables behind the SHAETOR form and no match is found to an existing Banner ID, the last name and first name received from the XML file are displayed on SHIETSS. This is the data stored in the SHBTEOT_LAST_NAME and SHBTEOT_FIRST_NAME columns. The Banner ID will be *Null*, which alerts the user that the order has not yet been matched to an existing Banner record.
- When a match is found to an existing Banner record, the Banner ID is populated with the associated SPRIDEN_PIDM value. The matched last name and first name from the SPRIDEN record are displayed. This is the data stored in the SPRIDEN_LAST_NAME and SPRIDEN_FIRST_NAME columns.

This form contains the following blocks:

- Key Block
- Transcript Status Summary Block
- Order Status History Block

Key Block

Use the Key Block to refine your summary results or leave blank to return all summary records.

Fields	Descriptions
ID	Student ID. List Person Search Form (SOAIDEN).
Status	eTranscript order status code. List eTranscript Order Status Validation (STVETST)
Order ID	Unique ID associated with the eTranscript order. This number is assigned by the NSC and consists of an order number and a suborder number.
From Date	Date from which you want to review received transcript orders.
To Date	Date to which you want to review received transcript orders.

Transcript Status Summary Block

Use this block to query on details about transcript orders. Queries can be performed by order ID, last name, first name, ID, status, or date. Records are sorted in alphabetical order by last name, then by order ID. Select a record and double click in the **Status** field to view all the statuses for that record in the Order Status History block.

Fields	Descriptions
Order ID	Unique ID associated with the eTranscript order. This number is assigned by the NSC and consists of an order number and a suborder number.
Last Name	Student's last name.
First Name	Student's first name.
ID	Student's ID.

Fields	Descriptions
Status	eTranscript status code. Double click in this field to view all the statuses for that record in the Order Status History block.
Description	Description of eTranscript status code.
Date	Date the record was added or updated.

Order Status History Block

Use this block to review a list of statuses for a specific record in the Transcript Status Summary block. The information for order ID, ID, and name is defaulted in. Records are sorted from most current status to oldest status.

Fields	Descriptions
Status	eTranscript status code.
Description	Description of eTranscript status code.
Date	Date the record was added or updated.

eTranscript PDF Printer Rule Form (SHRPDFT)

This form is used to create and maintain rules used when the eTranscript electronic output is generated. Rules are defined by transcript type, PDF template, and printer name when paper output is used. If your institution wishes to use different printers or PDF templates, you must define multiple transcript types.

Banner transcript types must be defined on SHATPRT to be used on SHRPDFT. They are mapped to specific PDF templates for electronic PDF transmission and to specific printers for paper (hardcopy) transcripts. PDF templates used by this form are stored in the directory specified on the GUAUPLP form. The SHRETRN process uses this form to determine which PDF template to use or which printer the output is sent to based on the transcript type.

The **PDF Template** and **Printer Name** fields are optional. However, one of the fields must be populated for each record. Both fields can be populated if you wish.

Note

When a printer is not assigned to an active rule for a paper transcript, SHRTRTC will run successfully but will not print the request. SHRTRTC looks for the printer value in SHTTRAN, which for eTranscript is set to the SHRPDFT_PRNT_CODE by the create procedure. ■

Fields	Descriptions
Active	Checkbox used to indicate whether the rule is active.
Transcript Type	eTranscript type code.
	List eTranscript Third Party Transcript Type Validation (STVETTP)
Description	Description of transcript type code.
PDF Template	PDF template (XSLT stylesheet) to be used for the transcript type.
	List Transcript Verification Request Type Validation (STVTPRT)
Printer	Name of local printer to be used for the printing the transcript type.
	List Printer Code Validation (GTVPRNT)
Description	Description of printer.

eTranscript Rule Form (SHRTETC)

This form is used to create and maintain processing rules used to automate eTranscript processing. Rules are set up by transcript type, delivery type, student level, and holds for grades and degrees. Rules include mappings of PESC values to Banner values that are required to create a Banner transcript request (SHARQTC form, SHTTRAN table) and generate the appropriate output.

This form contains the following blocks:

- Processing Rules Block
- Transcript Types Block
- Delivery Types Block
- Levels Block
- Hold for Degree or Grades Block

Processing Rules Block

Use this block to enter the processing information for the rule, including the OPEID number and FTP information. Fields in this block are required. Use the Processing Rules tab to access this block.

Fields	Descriptions
OPEID	Institution's eight digit OPEID number, which is a six digit OPEID and a two digit branch code. This is a federal code identifier for the institution. It tells the Ellucian Cloud where to direct the transcript order.
FTP Directory	Directory where the transcript file will be placed. For eTranscript processing, this is the NSC drop box to which the files will be sent using SFTP transfer.
Default Transcript Type	Transcript type code and description used from Banner (SHARQTC) for the transcript request. This is used when no transcript type and purpose have been provided in the order XML for a third party servicer or when they do not exist in the Levels block.
	List Transcript Verification Request Type (STVTPRT)
Default Level	Student level code and description used from Banner (SHARQTC) for the transcript request. This is used when no transcript type and purpose have been provided in the order XML for a third party servicer or when they do not exist in the Levels block.
	List Level Code Validation (STVLEVL)
Include In-Progress Courses	Checkbox used to indicate whether courses that are in process should be included on the transcript. This applies to all transcript orders that are processed.
Auto Cancel Days	Number of days after which the transcript request automatically expires if no action is taken to resolve holds or student not found issues. Valid values are between 0 and 30.
Matching Source	Rule used in common matching to match the student to the transcript request. This rule is set up on the GORCMRL form and is called by the Find a Student API.
	List Common Matching Source Code (GTVCMSC)

Transcript Types Block

Use this block to map third party transcript type PESC values from STVETPU and transcript purpose PESC values from STVETTP to Banner transcript types on SHATPRT that are used to create and generate the Banner transcript request on SHARQTC. Use the Transcript Types tab to access this block.

Fields	Descriptions
Third Party Transcript Type	<p>PESC transcript type code for the eTranscript request.</p> <p>These values are selected by the institution and set up on the NSC school profile. They are delivered and should not be changed.</p> <p>List eTranscript Type Validation (STVETTP)</p>
Description	Description of PESC transcript type code for the request.
Third Party Transcript Purpose	<p>PESC transcript purpose code for the eTranscript request.</p> <p>These values are selected by the institution and set up on the NSC school profile. They are delivered and should not be changed.</p> <p>List eTranscript Purpose Validation (STVETPU)</p>
Description	Description of PESC transcript purpose code for the request.
Banner Transcript Type	<p>Transcript type code from Banner. Transcript types are unique to each institution.</p> <p>List Transcript Verification Request Type (STVTPRT)</p>

Delivery Types Block

Use this block to map PESC delivery methods from STVETME to the PESC format and the available Banner send (output) types (paper or PDF) for the Banner transcript request. Use the Delivery Types tab to access this block.

Fields	Descriptions
PESC Delivery Method Code	<p>PESC delivery method, such as <i>Electronic</i>, <i>Hold for Pickup</i>, <i>Overnight</i>. PESC transcript purpose codes are delivered and should not be changed.</p> <p>List eTranscript Delivery Method Validation (STVETME)</p>
Description	Description of PESC delivery method.
PESC Format	PESC format to be used for the transcript. Valid values are <i>PDF</i> , <i>XML</i> , <i>Paper</i> .

Fields	Descriptions
Banner Output Type	Banner transcript output type. Values are <i>PDF</i> (saved to the database as <i>D</i>), <i>PESC/XML</i> (saved to the database as <i>P</i>), and <i>Paper</i> (saved to the database as <i>Null</i>).

Levels Block

Use this block to map third party transcript type PESC values to the Banner level codes to be used to create and generate the transcript request on SHARQTC. The Banner level of *AL (All Levels)* can be used. Use the Levels tab to access this block.

Fields	Descriptions
Third Party Transcript Type	PESC transcript type for the eTranscript request. These values are selected by the institution and set up on the NSC school profile. They are delivered and should not be changed. List eTranscript Type Validation (STVETTP)
Description	Description of PESC transcript type for the request.
Banner Level	Level code from Banner. Only one level code can be associated with each third party transcript type. Enter a specific level code or enter <i>AL</i> for all levels. List Level Code Validation (STVLEVL)
Description	Description of level code.

Hold for Degree or Grades Block

This block supports future processing options for holding the transcript order until the degree information or grades have been supplied. The release date associated with each term controls when the Ellucian Cloud will poll Banner for an update on an order status. Use the Hold for Degree or Grades tab to access this block.

The **Release Date** is the date after which automatic processing of the transcript request can continue.

- The release date for **Hold for Degree** should reflect the date for the term when all graduation processing has been completed, and degree records are updated to *Awarded* in Banner.

- The release date for **Hold for Grades** should reflect the date for the term when all end of term processing has been completed, and academic history has been updated.

Fields	Descriptions
Hold For Degree	Term code for term in which degree is held. The Graduation Term must be entered on SGASTDN in order to use Hold for Degree as a processing option.
	List Term Code Validation (STVTERM)
Description	Term code description for the degree.
Hold For Grades	Term code for term in which grades are held.
	List Term Code Validation (STVTERM)
Description	Term code description for the grades.
Release Date	Date after which automatic transcript processing can continue.

Changed forms

The following forms have been changed for this enhancement.

Transcript Request Form (SHARQTC)

A new value of *D* (PDF) has been added to the `SHTTRAN_TYPE` field. Values for this field are: *E* (EDI), *P* (PESC), *N* (Paper), *D* (PDF).

When a PDF transcript is generated, the **Status** field in the Electronic Transcript Status section of the form is updated with existing baseline codes such as *P1 - XML Transcript Exported* or *P2 - XML Export had Errors*.

Transcript Type Rules Form (SHATPRT)

The print options on this form have been updated to work with PDF transcripts.

- The elements in the Print Options block can be used with PDF transcripts, with these exceptions:
 - The **Test Scores** and **Immunization Data** options are only used with the PECS/XML transcripts. They are not used with paper or PDF transcripts.

You can add these two options to a PDF transcript by creating a custom PDF template. The information for the options exists in the XML that is used to create the PDF. However the delivered PDF template does not display the information.

- The **Student Centric Period Statistics** option is not available for PDF transcripts at this time.
- The print options for User-Defined Extensions in the Print Options block *must* be checked for use with PDF transcripts. (**College Transcript, Student, Academic Record, Course**)
- The options in the Curriculum Print Options block are used with PDF transcripts.
- The options in the Personalization Print Options block are used with PDF transcripts.
- The options in the Name Hierarchy block are used with PDF transcripts.

New menu

A new sub menu has been added to the Academic History Menu [*AHISTORY]. The eTranscript Processing Menu [*AHISTORYH] contains the application, rules, and inquiry forms used with eTranscript processing.

eTranscript Processing Menu [*AHISTORYH]

The following forms have been added to this menu:

- eTranscript Administrator Configuration Form (SHAETAD)
- eTranscript Transcript Request Summary Form (SHAETOR)
- eTranscript SFTP Transmission Resend Form (SHASFTP)
- eTranscript Summary Status Summary Inquiry Form (SHIETSS)
- eTranscript PDF Printer Rule Form (SHRPDFT)
- eTranscript Rule Form (SHRTETC)

Changed menu

The following menu has been changed for this enhancement.

Validation Forms Sub Menu (STVESEL - STVFATT) [*STDVALD2A]

The following validation forms have been added to this menu:

- eTranscript Delivery Method Validation Form (STVETME)
- eTranscript PESC Transcript Purpose Validation Form (STVETPU)
- eTranscript Electronic Transcript Status Validation Form (STVETST)
- eTranscript PESC Transcript Type Validation Form (STVETTP)

New processes

The following processes are new for this enhancement and are used to generate electronic PDF transcript output.

- eTranscript Export Process (SHRETRN)
- eTranscript Listener Start Up Process (SHRQINI)
- eTranscript Advanced Queue Process (SHRADVQ)
- eTranscript Cloud Post Process (SHRPOST)

eTranscript Export Process (SHRETRN)

The eTranscript Export Process (SHRETRN) is used to produce the transcript order output. It does not use PGP encryption. It uses the single transcript process and schema.

This process is called by the SHKEORS order status package when the status of the order is *RG - Ready to Generate*. The order status package inserts a record into the SHTTRAN transcript request table, and then calls the SHKEBLD package, which sends a request to the queue for processing. SHRETRN can also be run from job submission.

SHRETRN produces the XML output and the electronic PDF output. (Note that SHRPESE is not used for XML output with this processing.) This is a Java process that can be run from job submission (for exception processing only) by ID and sequence number, transcript type, address selection date, and address priority and type. Exception processing refers to when an error occurs during the PDF generation, but the SHTTRAN record is updated. You can create a duplicate record and run SHRETRN to send the PDF manually.

The following files are used with this process.

- shretrn.jar

- shretrn.shl
- shretrn.pl
- shretrn_template.xsl

A baseline PDF template is delivered for use with SHRETRN. An Adobe Formatting Objects Processor (FOP) tool is used to create a stylesheet for the transformation of the data to XML. Data elements (print options) from SHATPRT are included in the template. You can create your own templates and link them to Banner transcript types.

The eTranscript PDF Printer Rule Form (SHRPDFT) is used to map the Banner transcript type to specific PDF templates for electronic PDF transmission and to specific printers for paper (hardcopy) transcripts. Banner transcript types must be defined on SHATPRT to be used on SHRPDFT.

Please see the following landscaped section for process parameters and sample output.

eTranscript Listener Start Up Process (SHRQINI)

This process initializes the SHRADVQ listener process to be run in the background, where it listens for Oracle advanced queue calls to execute eTranscript processing. It can be run from job submission. SHRQINI can be compared to the SFRQINI queue initialization process used with CAPP compliance processing.

Please see the following landscaped section for process parameters and sample output.

eTranscript Advanced Queue Process (SHRADVQ)

This process is a listening agent Oracle advanced queue processing. It tells advanced queuing to perform eTranscript processing. Run the SHRQINI process to start the SHRADVQ process. SHRADVQ can be compared to the SFRADVQ queue listener process used with CAPP compliance processing. There are no job submission parameters for this process.

This process uses the *QUEUETIME* rule on GTVSDAX. You must verify that this rule is set up for eTranscript processing.

Please see the following landscaped section for process parameters and sample output.

eTranscript Cloud Post Process (SHRPOST)

This process is called when paper and PDF transcripts are initiated, and it sends an order status update to the Ellucian Cloud. It is a Java process that is run automatically. The notification is sent based on the order status when the status is changed to *TF - Transmission Failed*, *FF - Order Fulfilled*, or *FO - Offline Record Sent*. SHRPOST

receives the order status in the form of PESC Transcript Response (XML) and posts the XML to the Ellucian Cloud through a RESTful Web Service call.

The following files are used with this process.

- shrpost.jar
- shrpost.shl
- shrpost.pl

Changed process

The following process has been modified for this enhancement.

Academic Transcript (SHRTRTC)

This process has been modified to work with eTranscript processing. When a paper transcript is requested from the NSC, and the order has been run and the paper transcript generated in Banner, a record is inserted into the SHRTEOS table with a status of *FO - Offline Record Sent*.

The “ID and [Sequence] as XXXXXXXXXXX000” parameter has been renamed “ID and Seq as XXXXXXXXXXX/000”. When transcripts are run manually, enter the parameter information as follows.

- Positions one through nine (XXXXXXXXXX) are available for the ID number. The ID number may not use the entire nine digits. It can be shorter than nine digits.
- The next position (/) is a separator. This position will float, depending on the ID length.
- The next positions (000) are available for the sequence number or transcript request number. The transcript request number may not use all three positions. It can be shorter than three digits. These positions will also float based on the length of the ID and the position of the separator.

When SHRTRTC is run manually, this format must be used for the transcript request, such as 12345/09, 123456789/01, or N00014401/11.

2 eTranscript - Process Samples

This section contains parameter details and output samples for the new eTranscript processes.

- eTranscript Export Process (SHRETRN)
- eTranscript Listener Start Up Process (SHRQINI)
- eTranscript Advanced Queue Process (SHRADVQ)
- eTranscript Cloud Post Process (SHRPOST)

eTranscript Export Process (SHRETRN)

Description The eTranscript Export Process (SHRETRN) is used to produce the transcript order output in PDF format. This is a Java process that can be run from job submission (for exception processing only) by ID and sequence number, transcript type, address selection date, address priority and type, and Order ID. It is also run when a request is sent to the queue by the order status package to process the transcript request. Exception processing refers to when an error occurs during the PDF generation, but the SHTTRAN record is updated. You can create a duplicate record and run SHRETRN to send the PDF manually.

SHRETRN produces XML and PDF output. The XML output is not PESC compliant and is used for the PDF generation only. It contains Banner values instead of the PESC values produced by the SHRPESE process. 50 user-defined elements are provided to accommodate the data elements from the SHATPRT print option rules.

This process is called by the SHKEORS order status package when the status of the order is *RG - Ready to Generate*. The order status package inserts a record into the SHTTRAN transcript request table, and then calls the SHKEBLD package, which sends a request to the queue for processing. SHRETRN can also be run from job submission.

SHRETRN uses SFTP transfer to automatically send the electronic PDF output to the NSC drop box. If the SFTP process fails, an automatic number of retries is built in. Three retries are attempted, each 60 seconds apart. When the retries fail, the eTranscript SFTP Transmission Resend Form (SHASFTP) displays the errors and allows you to attempt a manual resend of the files individually or in a group. A record is written to the SHRSFTP table, and the generated PDF is stored in a BLOB column.

The following files are used with this process.

- shretrn.jar
- shretrn.shl
- shretrn.pl
- shretrn_template.xsl

A baseline PDF template is delivered for use with SHRETRN. An Adobe Formatting Objects Processor (FOP) tool is used to create a style sheet for the transformation of the data to XML. Data elements (print options) from SHATPRT are included in the template. You can create your own templates and link them to Banner transcript types.

The eTranscript PDF Printer Rule Form (SHRPDFT) is used to map the Banner transcript type to specific PDF templates for electronic PDF transmission and to specific printers for paper (hardcopy) transcripts.

<i>Parameters</i>	Name	Required?	Description	Values
	ID and Sequence Number	Yes	This is the combined ID and sequence number for the transcript. The ID is the first nine characters. The sequence number is the last three characters,	
	Transcript Type	Yes	This is the transcript type to be processed.	
	Address Selection Date	No	This is the date used to select the appropriate address.	
	Address Priority and Type	Yes	This is the address priority and address type, such as <i>IMA</i> . Multiple values can be entered.	
	Order ID	Yes	This is the unique transcript order/suborder number assigned by the NSC.	

Report Sample—eTranscript Export Process (SHRETRN)

This sample shows the Control Report.

December 6, 2013 10:29:27 AM		Ellucian University eTranscript Creation Process		SHRETRN Page 1
Student ID	SBGI Code	Seq No	Message	
A00192710	1		----- Transcript Generated as /home/plawler/jobsub/Ellucian_Transcript_99989900_PJL005_20131206101228.pdf	

CONTROL SUMMARY

PROGRAM NAME: SHRETRN
PROGRAM VERSION: 8.6.2

Parameter Description	Parameter Value
REQUEST ID(S) :	A001927101
TRANSCRIPT TYPE(S) :	ADVS
ADDRESS SELECT DATE :	06-DEC-2013
ADDRESS TYPE(S) :	1MA
ORDER ID :	PJL005

ALL TRANSCRIPTS ARE OFFICIAL

RECORDS READ : 1

This sample shows the XML output. It continues below.

```
<?xml version="1.0" encoding="UTF-8"?>
<ColTrn:CollegeTranscript xsi:schemaLocation="urn:org:pescc:message:CollegeTranscript:v1.4.0 http://www.pesc.org/info/docs/college_transcript/CollegeTranscript_v1.4.0.xsd" xmlns:ColTrn="urn:org:pescc:message:CollegeTranscript:v1.4.0" xmlns:core="urn:org:pescc:core:CoreMain:v1.12.0" xmlns:AcRec="urn:org:pescc:sector:AcademicRecord:v1.7.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <TransmissionData>
    <DocumentID>XMLTRA2013-12-06T10:29:28.78</DocumentID>
    <CreatedDateTime>2013-12-06T10:29:28.78</CreatedDateTime>
    <DocumentTypeCode>RequestedRecord</DocumentTypeCode>
    <TransmissionType>Original</TransmissionType>
    <Source>
      <Organization>
        <OrganizationName>Ellucian University</OrganizationName>
        <Contacts>
          <Phone>
            <AreaCityCode>610</AreaCityCode>
            <PhoneNumber>5781111</PhoneNumber>
          </Phone>
        </Contacts>
      </Organization>
    </Source>
    <Destination>
      <Organization>
        <OrganizationName xsi:nil="true" />
        <Contacts>
          <Phone>
            <PhoneNumber>610-999-048</PhoneNumber>
          </Phone>
        </Contacts>
      </Organization>
    </Destination>
    <DocumentProcessCode xsi:nil="true" />
    <DocumentOfficialCode>Official</DocumentOfficialCode>
    <DocumentCompleteCode>Complete</DocumentCompleteCode>
  </TransmissionData>
</ColTrn:CollegeTranscript>
```

```

</TransmissionData>
<Student>
<Person>
<SchoolAssignedPersonID>A00192710</SchoolAssignedPersonID>
<Name>
<FirstName>Regina</FirstName>
<LastName>Joens</LastName>
<CompositeName>Joens,Regina</CompositeName>
</Name>
<Contacts/>
<Gender>
<GenderCode>Unreported</GenderCode>
</Gender>
<Deceased>
<DeceasedIndicator>>false</DeceasedIndicator>
</Deceased>
</Person>
<AcademicRecord>
<AcademicSummary>
<AcademicSummaryType>All</AcademicSummaryType>
<AcademicSummaryLevel>Undergraduate & (UG)</AcademicSummaryLevel>
<GPA>
<CreditHoursAttempted>23</CreditHoursAttempted>
<CreditHoursEarned>23</CreditHoursEarned>
<GradePointAverage>4</GradePointAverage>
<TotalQualityPoints>92</TotalQualityPoints>
<CreditHoursforGPA>23</CreditHoursforGPA>
</GPA>
<AcademicProgram>
<ProgramCIPCode>260000</ProgramCIPCode>
<AcademicProgramType>Major</AcademicProgramType>
<AcademicProgramName>Medicine</AcademicProgramName>
</AcademicProgram>
<Delinquencies>Good Standing</Delinquencies>
</AcademicSummary>
</AcademicRecord>
<AcademicRecord>
<AcademicSummary>
<AcademicSummaryType>TransferOnly</AcademicSummaryType>
<AcademicSummaryLevel>Undergraduate & (UG)</AcademicSummaryLevel>
</AcademicSummary>
</AcademicRecord>
<AcademicRecord>
<AcademicSummary>
<AcademicSummaryType>SenderOnly</AcademicSummaryType>
<AcademicSummaryLevel>Undergraduate & (UG)</AcademicSummaryLevel>
<GPA>
<CreditHoursAttempted>23</CreditHoursAttempted>
<CreditHoursEarned>23</CreditHoursEarned>
<GradePointAverage>4</GradePointAverage>
<TotalQualityPoints>92</TotalQualityPoints>
<CreditHoursforGPA>23</CreditHoursforGPA>
</GPA>
</AcademicSummary>
</AcademicSession>
<AcademicSessionDetail>
<SessionDesignator>2008-09</SessionDesignator>
<SessionDesignatorSuffix>10</SessionDesignatorSuffix>
<SessionName>Fall 2008 (Sept-Oct) & 200810</SessionName>

```

```

<SessionType>Full Year</SessionType>
<SessionBeginDate>2008-09-01</SessionBeginDate>
<SessionEndDate>2013-12-31</SessionEndDate>
</AcademicSessionDetail>
<StudentLevel>
<StudentLevelCode>Freshman & & First</StudentLevelCode>
</StudentLevel>
<AcademicProgram>
<ProgramCIPCode>260000</ProgramCIPCode>
<AcademicProgramType>Major</AcademicProgramType>
<AcademicProgramName>Medicine</AcademicProgramName>
</AcademicProgram>
<Course>
<CourseCreditBasis>Regular</CourseCreditBasis>
<CourseCreditUnits>Full Year</CourseCreditUnits>
<CourseCreditLevel>Undergraduate & (UG)</CourseCreditLevel>
<CourseCreditValue>10</CourseCreditValue>
<CourseCreditEarned>10</CourseCreditEarned>
<CourseAcademicGradeScaleCode>Standard Letter</CourseAcademicGradeScaleCode>
<CourseAcademicGrade>A</CourseAcademicGrade>
<CourseQualityPointsEarned>40</CourseQualityPointsEarned>
<CourseSubjectAbbreviation>AUST</CourseSubjectAbbreviation>
<CourseNumber>104</CourseNumber>
<CourseSectionNumber>0</CourseSectionNumber>
<CourseTitle>Aust Social Policy-SSAWLSC</CourseTitle>
<CourseBeginDate>2007-09-01</CourseBeginDate>
<CourseEndDate>2009-12-31</CourseEndDate>
<UserDefinedExtensions xmlns:ude="eTranscriptCourseData">
<ude:Course>
<Course>
<CollegeTerm>College of Arts & Sciences</CollegeTerm>
<MajorTerm>Medicine</MajorTerm>
<StudentTypeTerm>New First Time</StudentTypeTerm>
<CourseCampus>M</CourseCampus>
<DelinquencyLast>Good Standing</DelinquencyLast>
<CRSETermCode>200810</CRSETermCode>
<CRSECurrentLevel>UG</CRSECurrentLevel>
</Course>
</ude:Course>
</UserDefinedExtensions>
</Course>
<Course>
<CourseCreditBasis>Regular</CourseCreditBasis>
<CourseCreditUnits>Full Year</CourseCreditUnits>
<CourseCreditLevel>Undergraduate & (UG)</CourseCreditLevel>
<CourseCreditValue>3</CourseCreditValue>
<CourseCreditEarned>3</CourseCreditEarned>
<CourseAcademicGradeScaleCode>Standard Letter</CourseAcademicGradeScaleCode>
<CourseAcademicGrade>A</CourseAcademicGrade>
<CourseQualityPointsEarned>12</CourseQualityPointsEarned>
<CourseSubjectAbbreviation>BUS</CourseSubjectAbbreviation>
<CourseNumber>XC1</CourseNumber>
<CourseSectionNumber>XC1</CourseSectionNumber>
<CourseTitle>Business for Cross Listing 1</CourseTitle>
<CourseBeginDate>2007-09-01</CourseBeginDate>
<CourseEndDate>2009-12-31</CourseEndDate>
<UserDefinedExtensions xmlns:ude="eTranscriptCourseData">
<ude:Course>
<Course>

```

```

<CollegeTerm>College of Arts & Sciences</CollegeTerm>
<MajorTerm>Medicine</MajorTerm>
<StudentTypeTerm>New First Time</StudentTypeTerm>
<CourseCampus>M</CourseCampus>
<DelinquencyLast>Good Standing</DelinquencyLast>
<CRSETermCode>200810</CRSETermCode>
<CRSECurrentLevel>UG</CRSECurrentLevel>
</Course>
</ude:Course>
</UserDefinedExtensions>
</Course>
<Course>
<CourseCreditBasis>Regular</CourseCreditBasis>
<CourseCreditUnits>Full Year</CourseCreditUnits>
<CourseCreditLevel>Undergraduate & (UG)</CourseCreditLevel>
<CourseCreditValue>10</CourseCreditValue>
<CourseCreditEarned>10</CourseCreditEarned>
<CourseAcademicGradeScaleCode>Standard Letter</CourseAcademicGradeScaleCode>
<CourseAcademicGrade>A</CourseAcademicGrade>
<CourseQualityPointsEarned>40</CourseQualityPointsEarned>
<CourseSubjectAbbreviation>GEOG</CourseSubjectAbbreviation>
<CourseNumber>101</CourseNumber>
<CourseSectionNumber>0</CourseSectionNumber>
<CourseTitle>SSAWLSC on</CourseTitle>
<CourseBeginDate>2007-09-01</CourseBeginDate>
<CourseEndDate>2009-12-31</CourseEndDate>
<UserDefinedExtensions xmlns:ude="eTranscriptCourseData">
<ude:Course>
<Course>
<CollegeTerm>College of Arts & Sciences</CollegeTerm>
<MajorTerm>Medicine</MajorTerm>
<StudentTypeTerm>New First Time</StudentTypeTerm>
<CourseCampus>M</CourseCampus>
<DelinquencyLast>Good Standing</DelinquencyLast>
<CRSETermCode>200810</CRSETermCode>
<CRSECurrentLevel>UG</CRSECurrentLevel>
</Course>
</ude:Course>
</UserDefinedExtensions>
</Course>
<AcademicSummary>
<AcademicSummaryType>SenderOnly</AcademicSummaryType>
<AcademicSummaryLevel>Undergraduate & (UG)</AcademicSummaryLevel>
<GPA>
<CreditHoursAttempted>23</CreditHoursAttempted>
<CreditHoursEarned>23</CreditHoursEarned>
<GradePointAverage>4</GradePointAverage>
<TotalQualityPoints>92</TotalQualityPoints>
<CreditHoursforGPA>23</CreditHoursforGPA>
</GPA>
<Delinquencies>Good Standing</Delinquencies>
</AcademicSummary>
</AcademicSession>
</AcademicRecord>
<Health/>
<UserDefinedExtensions xmlns:ude="eTranscriptStudentData">
<ude:Student>
<StudentIDLabel>Banner ID:</StudentIDLabel>
<StudentSSNLabel>SSN:</StudentSSNLabel>

```

```
<PrintStudentAddr>Yes</PrintStudentAddr>
<PrintStudentDOB>Yes</PrintStudentDOB>
<CurrentName>Regina Joens</CurrentName>
<RecordOf>Regina Joens</RecordOf>
</ude:Student>
</UserDefinedExtensions>
</Student>
<UserDefinedExtensions xmlns:ude="eTranscriptTranData">
<ude:TransmissionData>
<TranscriptType>ADVS</TranscriptType>
<TranscriptTypeDescription>Advising</TranscriptTypeDescription>
<IssuedAddress>
<IssuedTo>Recipient Name</IssuedTo>
<Street1>recipient line 1</Street1>
<Street2>recipient line 2</Street2>
<Street3>Recipient Attention</Street3>
<City>Downingtown</City>
<StateCode>PA</StateCode>
<Zip>19383</Zip>
<CountryCode>United States of America</CountryCode>
</IssuedAddress>
<DateIssued>06-DEC-2013</DateIssued>
<PrintTotals>Yes</PrintTotals>
<PrintInsTotals>Yes</PrintInsTotals>
<PrintTransTotals>Yes</PrintTransTotals>
<PrintOAllTotals>Yes</PrintOAllTotals>
<PrintCourseCampus>Yes</PrintCourseCampus>
</ude:TransmissionData>
</UserDefinedExtensions>
</ColTrn:CollegeTranscript>
```

eTranscript Listener Start Up Process (SHRQINI)

Description This process initializes the SHRADVQ listener process to be run in the background, where it listens for Oracle advanced queue calls to execute eTranscript processing. It can be run from job submission. SHRQINI can be compared to the SFRQINI queue initialization process.

Parameters	Name	Required?	Description	Values
	Number of Listeners to Start	Yes	Enter the number of advanced queue listeners to be started from SHRADVQ. The default is 10.	

Report Sample—eTranscript Listener Start Up Process (SHRQINI)

The report displays the following when the process is run:

```
10-NOV-2013          Ellucian University
                   eTranscript Listener Start Up Log          SHRQINI

This program starts the listener service(s) to handle
eTranscript from the Banner System
Attempting to Purging Queues.
Attempting to stop any existing shradvq listeners.

Starting queue with command: echo client_password | shradvq client_username 1 &
Server Started

Starting queue with command: echo client_password | shradvq client_username 2 &
Server Started

Starting queue with command: echo client_password | shradvq client_username 3 &
Server Started
^L
  * * * REPORT CONTROL INFORMATION - SHRQINI - Release 8.6.2 * * *

                   Sessionid: 10287184
```

eTranscript Advanced Queue Process (SHRADVQ)

Description This process is a listening agent for Oracle advanced queue processing. It tells advanced queuing to perform eTranscript processing. Run the SHRQINI process to start the SHRADVQ process. SHRADVQ can be compared to the SFRADVQ queue listener process. There are no job submission parameters for this process.

GTVSDAX Rule

This GTVSDAX rule can be used with advanced queue processing for eTranscripts.

Internal Code	Internal Code Group	External Code	Description
QUEUETIME	QUEUETIMEOUT	300	SFRADVQ/SHRADVQ timeout in seconds

The *QUEUETIME* rule is used to change the timeout period for the advanced queue process. The delivered default timeout period is 300 seconds (five minutes). You need to set the rule to the timeout value you choose for the queue to work with the advanced queuing. The SOKADVQ package uses the *QUEUETIME* rule.

The *QUEUETIME* rule is equivalent to the *PIPETIME* GTVSDAX rule. The *QUEUETIME* rule states the amount of time the user is willing to wait for a response for eTranscript processing while using the advanced queuing option, while the *PIPETIME* rule denotes the amount of time the user is willing to wait for a response for the compliance processing while using pipes processing.

Advanced queuing is a requirement of eTranscript processing. The GTVSDAX rule is not delivered with the Banner Student 8.6.2 release and must be verified during the upgrade process.

Report Sample—eTranscript Advanced Queue Process (SHRADVQ)

The report displays the following when the process is run:

```
11-NOV-2013      UNIVERSITY of BANNER
                  eTranscript Listener Log File
                                     shradvq_s10b80v_1

shradvq_s10b80v_1 listener waiting for work ...
Date              Process              Jobsub_No      RunMode      Banner ID      Request_no      Process Time(sec.)

Notice: This Queue is being shut down because :
* * * Exit command recieved at 11-NOV-2013 07:43:41 * * * ^L
```


* * * REPORT CONTROL INFORMATION - shradvq_s10b80v_1 - Release 8.6.2 * * *

Sessionid : 3427456

Total Transcripts Processed on this Queue : 0

Average Transcript Processing Time : 0.00

eTranscript Cloud Post Process (SHRPOST)

Description This process is called when paper and PDF transcripts are initiated, and it sends an order status update to the Ellucian Cloud. It is a Java process that is run automatically. The notification is sent based on the order status when the status is changed to *TF - Transmission Failed*, *FF - Order Fulfilled*, or *FO - Offline Record Sent*. SHRPOST receives the order status in the form of PESC Transcript Response (XML) and posts the XML to the Ellucian Cloud through a RESTful Web Service call.

After an order is processed by SHRETRN or SHRTRTC, the order is saved to a queue to be picked up by the SHRPOST process. This sends the order statuses of *FF*, *FO*, and *TF* to the Ellucian Cloud and *FF* and *FO* to the NSC.

The following files are used with this process.

- shrpost.jar
- shrpost.shl
- shrpost.pl

<i>Parameters</i>	Name	Required?	Description	Values
	Order ID	Yes	Enter the unique transcript order and suborder number assigned by the NSC.	

Report Sample—eTranscript Cloud Post Process (SHRPOST)

This sample shows the .log file. It continues below.

```
2013-11-15 18:45:55,264 INFO [main] - PESCXMLPOSTProcessor.processJob() 387375
2013-11-15 18:45:55,267 INFO [main] - orderID = 123455-4
2013-11-15 18:45:56,289 INFO [main] - Cloud URL: https://etranscriptstest.elluciancloud.com/99989900/api/transcript-orders/123455-4
2013-11-15 18:45:57,587 INFO [main] - Content after calling shkeors.p_status_update() :
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ns2:TranscriptResponse xmlns:ns2="urn:org:psc:message:TranscriptResponse:v1.2.0" xmlns:ns3="urn:org:psc:core:CoreMain:v1.12.0">
  <ns2:TransmissionData>
    <DocumentID>123456001</DocumentID>
    <CreatedDateTime>2013-11-03T12:42:00.000-05:00</CreatedDateTime>
    <DocumentTypeCode>Request</DocumentTypeCode>
    <TransmissionType>Original</TransmissionType>
    <Source>
      <Organization>
        <DUNS>827034414</DUNS>
        <OrganizationName>National Student Clearinghouse</OrganizationName>
      </Organization>
    </Source>
    <Destination>
      <Organization>
        <OPEID>12345678</OPEID>
        <OrganizationName>LMM University</OrganizationName>
      </Organization>
    </Destination>
    <DocumentProcessCode>TEST</DocumentProcessCode>
  </ns2:TransmissionData>
  <ns2:Response>
    <CreatedDateTime>2013-11-03T13:10:00.000-05:00</CreatedDateTime>
    <RequestTrackingID>123455-4</RequestTrackingID>
    <ResponseStatus>AR</ResponseStatus>
    <RequestedStudent>
      <Person>
        <Name>
          <FirstName>Bonnie</FirstName>
          <LastName>Blackwell</LastName>
        </Name>
      </Person>
      <Attendance>
        <School>
          <OrganizationName>AttendanceLMM University</OrganizationName>
          <OPEID>12345678</OPEID>
        </School>
        <CurrentEnrollmentIndicator>True</CurrentEnrollmentIndicator>
      </Attendance>
    </RequestedStudent>
    <UpdateContactsInformation>True</UpdateContactsInformation>
    </RequestedStudent>
    <DeliveryMethod>Electronic</DeliveryMethod>
    <UserDefinedExtensions>
      <ErpStatusInfo>
        <UpdateThirdParty>False</UpdateThirdParty>
        <UpdateCloudStatus>True</UpdateCloudStatus>
        <StatusDateTime>2013-11-14T08:11:37.000-05:00</StatusDateTime>
        <StatusCode>AR</StatusCode>
        <PlannedReleaseDate></PlannedReleaseDate>
      </ErpStatusInfo>
    </UserDefinedExtensions>
  </ns2:Response>
</ns2:TranscriptResponse>
```

</ns2:TranscriptResponse>

```
2013-11-15 18:45:59,566 INFO [main] - Response status recieved from Cloud: 200
2013-11-15 18:45:59,571 INFO [main] -
2013-11-15 18:45:59,571 INFO [main] - ---Start of headers---
2013-11-15 18:45:59,571 INFO [main] - Server: Apache-Coyote/1.1
2013-11-15 18:45:59,571 INFO [main] - X-hedtech-Media-Type: application/xml
2013-11-15 18:45:59,571 INFO [main] - X-hedtech-message: transcript-order resource updated
2013-11-15 18:45:59,571 INFO [main] - Content-Type: application/xml;charset=utf-8
2013-11-15 18:45:59,572 INFO [main] - Transfer-Encoding: chunked
2013-11-15 18:45:59,572 INFO [main] - Date: Fri, 15 Nov 2013 13:15:57 GMT
2013-11-15 18:45:59,572 INFO [main] - ---End of headers---
2013-11-15 18:45:59,572 INFO [main] -
2013-11-15 18:45:59,574 INFO [main] - **** SHRPOST completed successfully ****
```

3 eTranscript - Technical

This section contains the technical changes for the eTranscript enhancement.

New tables

The following tables are new for this enhancement and are used to monitor and manage eTranscript orders.

- eTranscript Transcript Order Summary Table (SHBTEOT)
- eTranscript Transcript Rules Table (SHBTETC)
- eTranscript Order Request XML Table (SHRORRE)
- eTranscript PDF Printer Rule Table (SHRPDFT)
- eTranscript SFTP Transmission Resend Table (SHRSFTP)
- eTranscript Transcript Delivery Methods Table (SHRTDEL)
- eTranscript Enrollment Degree Information Table (SHRTEDI)
- eTranscript Enrollment History Programs Table (SHRTEHP)
- eTranscript Transcript Order Detail Table (SHRTEOD)
- eTranscript Summary Status Table (SHRTEOS)
- eTranscript Transcript Hold for Degree or Grades Table (SHRTHLD)
- eTranscript Transcript Level Table (SHRTLVL)
- eTranscript Transcript Types Table (SHRTTYP)
- eTranscript Transcript Order Hold Table (SHRTXHL)
- eTranscript Delivery Method Validation Table (STVETME)
- eTranscript PESC Transcript Purpose Validation Table (STVETPU)
- eTranscript Order Status Validation Table (STVETST)
- eTranscript PESC Transcript Type Validation Table (STVETTP)

eTranscript Transcript Order Summary Table (SHBTEOT)

This table is used to store eTranscript order summary information for the base record that includes the order ID and various processing status indicators, as well as Banner ID and

PIDM for transcript orders that are matched to a record in Banner. If the Banner ID and PIDM are *Null*, the order has not yet been matched to a Banner ID. The data in this table is displayed in the Transcript Order Summary block on the eTranscript Transcript Request Summary Form (SHAETOR).

This table uses the following Primary Key:

PK_SHBTEOT PRIMARY KEY (SHBTEOT_ORDER_ID)

The following columns are in this table.

Column	Attribute	Null	Comment
SHBTEOT_ORDER_ID	VARCHAR2 (35)	No	ORDER ID: The unique transcript order number assigned by the NSC that consists of an order and suborder number.
SHBTEOT_ORDER_DATE	DATE	No	ORDER DATE: The timestamp of when the order was created.
SHBTEOT_ATTACHMENT_IND	VARCHAR2 (1)	No	ATTACHMENT INDICATOR: Attachment Indicator. Valid values are (Y)es (N)o. Default value is N.
SHBTEOT_ORDER_SPECIAL_IND	VARCHAR2 (1)	No	SPECIAL INSTRUCTIONS INDICATOR: Order Special Instructions Indicator. Valid values are (Y)es (N)o. Default value is N.
SHBTEOT_RUSH_IND	VARCHAR2 (1)	No	RUSH INDICATOR: Rush Indicator. Valid values are (Y)es (N)o. Default value is N.
SHBTEOT_STUDENT_NOT_FOUND_IND	VARCHAR2 (1)	No	STUDENT NOT FOUND INDICATOR: Student Not Found Indicator. Valid values are (Y)es (N)o. Default value is N.
SHBTEOT_CANCEL_IND	VARCHAR2 (1)	No	CANCEL ORDER INDICATOR: Cancel Order Indicator. Valid values are (Y)es (N)o, Default value is N
SHBTEOT_MANUAL_IND	VARCHAR2 (1)	No	MANUAL PROCESS INDICATOR: Manually Process Indicator. Valid values are (Y)es (N)o. Default value is N.
SHBTEOT_HOLD_RELEASE_IND	VARCHAR2 (1)	No	HOLD RELEASE INDICATOR: Hold Release Indicator. Valid values are (Y)es (N)o. Default value is N.
SHBTEOT_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.

Column	Attribute	Null	Comment
SHBTEOT_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHBTEOT_UNVERIFIED_ID	VARCHAR2 (9)	Yes	UNVERIFIED ID: This field identifies an ID that the user has submitted that may or may not be a valid Banner ID.
SHBTEOT_BANNER_ID	VARCHAR2 (9)	Yes	BANNER ID: This field identified a verified Banner ID.
SHBTEOT_PIDM	NUMBER (8)	Yes	PIDM: Internal Identification Number of Person.
SHBTEOT_FIRST_NAME	VARCHAR2 (60)	Yes	FIRST NAME: This field identifies the first name of person.
SHBTEOT_MIDDLE_NAME	VARCHAR2 (60)	Yes	MIDDLE NAME: This field identifies the middle name of person.
SHBTEOT_LAST_NAME	VARCHAR2 (60)	Yes	LAST NAME: This field identifies the last name of person.
SHBTEOT_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHBTEOT_SURROGATE_ID	NUMBER (19)	Yes	SURROGATE ID: The surrogate ID for this record.
SHBTEOT_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
SHBTEOT_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Transcript Rules Table (SHBTETC)

This table is used to store various rules and configuration settings needed for eTranscript order processing.

- The processing rules fields are displayed in the Processing Rules block of the eTranscript Rule Form (SHRTETC) and are configured by each institution to support automated order processing.
- The file transmission configuration fields are found in the File Transmission Configuration block on the eTranscript Administrator Configuration Form (SHAETAD). The file transmission fields are set up by each institution to automate the process of sending electronic file output to the third party vendor.
- The Ellucian Cloud connection fields are found in the Ellucian Cloud Connection block on the eTranscript Administrator Configuration Form (SHAETAD). The Ellucian Cloud connection fields are used by the SHRPOST process to authenticate to the Ellucian Cloud and send order statuses of *TF - Transmission Failed*, *FF -*

Order Fulfilled, and FO - Offline Record Sent, after an order has the RG - Ready to Generate status when the Update Order Cloud Status API is called by Banner.

This table uses the following Foreign Keys:

FK1_SHBTEC_INV_STVTPRT_KEY
FK1_SHBTEC_INV_GTVCMSC_KEY

The following columns are in this table.

Column	Attribute	Null	Comment
SHBTETC_COURSES_IN_ PROGRES_IND	VARCHAR2 (1)	No	COURSES IN-PROGRESS INDICATOR: Indicates if courses in progress should be included on the transcript.
SHBTETC_REVIEW_ELEC_ ORDERS_IND	VARCHAR2 (1)	No	REVIEW ELECTRONIC ORDERS: Not currently used.
SHBTETC_CONVERT_IND	VARCHAR2 (1)	No	CONVERT XML VALUES: This flag indicates that all eTranscripts should not have their XML values converted to PESC values. Default is Y.
SHBTETC_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHBTETC_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHBTETC_OPEID_CD	VARCHAR2 (8)	Yes	OPEID: The institution's eight-digit OPEID number.
SHBTETC_AUTO_CANCEL_DAYS	NUMBER (2)	Yes	AUTO CANCEL DAYS: The number of days after which the transcript request is automatically canceled.
SHBTETC_TPRT_CODE_BAN_ DEFAULT	VARCHAR2 (4)	Yes	BANNER TRANSCRIPT TYPE DEFAULT CODE: Default Banner transcript type to be used if no value has been mapped to third party.
SHBTETC_LEVL_CODE_BAN_ DEFAULT	VARCHAR2 (2)	Yes	BANNER LEVEL DEFAULT CODE: Default Banner student level code to be used if no value has been mapped to third party.
SHBTETC_CMSC_CODE	VARCHAR2 (20)	Yes	MATCHING RULE: The common matching rule to be used to find the student.
SHBTETC_HOST	VARCHAR2 (256)	Yes	HOST: Host name of default location where to connect for FTP of eTranscript transcript.

Column	Attribute	Null	Comment
SHBTETC_USERNAME	VARCHAR2 (30)	Yes	USERNAME: Username of default location for transporting eTranscript transcript.
SHBTETC_PASSWORD	VARCHAR2 (128)	Yes	PASSWORD: Encrypted Password to the id_rsa file.
SHBTETC_REMOTE_DIRECTORY	VARCHAR2 (256)	Yes	REMOTE DIRECTORY: The directory where the eTranscript transcript will be placed.
SHBTETC_SSH_DIRECTORY	VARCHAR2 (256)	Yes	SSH DIRECTORY: The directory where the id_rsa file will be placed for doing secure file transfer.
SHBTETC_SSH_PASSPHRASE	VARCHAR2 (128)	Yes	PASSPHRASE: Encrypted passphrase for the id_rsa file to use for secure file transfer.
SHBTETC_CLOUD_URL	VARCHAR2 (2083)	Yes	CLOUD URL: The URL that Banner will authenticate to for calling an eTranscript API.
SHBTETC_CLOUD_USERNAME	VARCHAR2 (128)	Yes	CLOUD USERNAME: The username that will authenticate to the Ellucian Cloud.
SHBTETC_CLOUD_USER_PASSWORD	VARCHAR2 (256)	Yes	CLOUD USERNAME PASSWORD: The password of the username that will authenticate to the Ellucian Cloud.
SHBTETC_ORACLE_DIR	VARCHAR2 (30)	Yes	ORACLE DIRECTORY: The Oracle directory where the PDF file should be stored.
SHBTETC_ORACLE_DIR_PATH	VARCHAR2 (256)	Yes	ORACLE DIRECTORY PATH: The path referenced by the Oracle directory.
SHBTETC_APP_SERVER_PATH	VARCHAR2 (256)	Yes	APPLICATION SERVER PATH: The path in the application server which is mapped to the Oracle directory path to be accessed by SFTP tool.
SHBTETC_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Order Request XML Table (SHRORRE)

This table is used to store eTranscript XML order request data including the incoming XML data file from the Ellucian Cloud, the document ID, and the order ID. The XML is stored in its entirety in the SHRORRE_XML column, and then is subsequently parsed to load the tables behind the SHAETOR form. The data in this table is not displayed in any form in Banner.

This table uses the following Primary Key:

PK_SHRORRE PRIMARY KEY (SHRORRE_ORDER_ID)

The following columns are in this table.

Column	Attribute	Null	Comment
SHRORRE_XML	XML TYPE	No	XML DATA: The XML data file containing the eTranscript Order Request information.
SHRORRE_DOCUMENT_ID	VARCHAR2(120)	No	DOCUMENT ID: The unique Document ID of the eTranscript Order Request.
SHRORRE_ORDER_ID	VARCHAR2 (30)	No	eTRANSCRIPT ORDER ID: The unique order number associated with the Transcript Order
SHRORRE _USER_ID	VARCHAR2(30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHRORRE _ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRORRE _DATA_ORIGIN	VARCHAR2(30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRORRE _SURROGATE_ID	NUMBER(19)	Yes	SURROGATE ID: The surrogate id for this record.
SHRORRE _VERSION	NUMBER(19)	Yes	VERSION: The optimistic lock token for this record.
SHRORRE _VPDI_CODE	VARCHAR2(6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript PDF Printer Rule Table (SHRPDFT)

This table is used to store eTranscript PDF template and printer rules for different Banner transcript types. The data in this table is displayed in the eTranscript PDF Printer Rule Form (SHRPDFT).

This table uses the following Primary Key:

PK_SHRPDFT PRIMARY KEY (SHRPDFT_SEQNO)

This table uses the following Foreign Keys:

FK1_SHRPDFT_INV_GTVPRNT_KEY
FK1_SHRPDFT_INV_STVTPRT_KEY

The following columns are in this table.

Column	Attribute	Null	Comment
SHRPDFT_SEQNO	NUMBER (10)		SEQ NUMBER: Unique Sequence number for each record.
SHRPDFT_TPRT_CODE	VARCHAR2 (10)	No	TRANSCRIPT TYPE: The transcript type from the transcript order.
SHRPDFT_ACTIVE_IND	VARCHAR2 (1)	No	ACTIVE INDICATOR: Indicator to identify if the rule is active or inactive.
SHRPDFT_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHRPDFT_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRPDFT_PDF_TEMPLATE_NAME	VARCHAR2 (30)	Yes	PDF TEMPLATE NAME: The name of the PDF template to be used for this transcript type.
SHRPDFT_PRNT_CODE	VARCHAR2 (30)	Yes	PRINTER NAME: The printer to be used to print the eTranscript with this Transcript Type code.
SHRPDFT_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRPDFT_SURROGATE_ID	NUMBER (19)	Yes	SURROGATE ID: The surrogate ID for this record.
SHRPDFT_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
SHRPDFT_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript SFTP Transmission Resend Table (SHRSFTP)

This table is used to store eTranscript SFTP errors for manual resend. The data in this table is displayed in the eTranscript SFTP Transmission Resend Form (SHRSFTP).

This table uses the following Primary Key:

PK_SHRSFTP PRIMARY KEY (SHRSFTP_SURROGATE_ID)

This table uses the following Foreign Key:

FK1_SHRSFTP_INV_STVTPT_KEY

This table uses the following Oracle Sequence:

SHRSFTP_SURROGATE_ID_SEQUENCE

The minimum value for the Oracle sequence is 1. The maximum value is 999999999. Numbering starts with 1 and is incremented by 1.

The following columns are in this table.

Column	Attribute	Null	Comment
SHRSFTP_ORDER_ID	VARCHAR2 (35)	No	ORDER ID: The unique transcript order number assigned by the NSC that consists of an order and suborder number.
SHRSFTP_PIDM	NUMBER (8)	No	PIDM: Internal identification number of the person.
SHRSFTP_TRAN_SEQ_NO	NUMBER (3)	No	TRAN SEQ NO: Sequence Number of the transcript request for the student.
SHRSFTP_TPRT_CODE	VARCHAR2 (4)	No	TRANSCRIPT TYPE: The Banner transcript type from the transcript order.
SHRSFTP_SURROGATE_ID	NUMBER (19)	No	SURROGATE ID: The surrogate ID for this record.
SHRSFTP_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHRSFTP_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRSFTP_BINARY_FIL	BLOB	Yes	BINARY FILE: The binary file to be sent via SFTP.
SHRSFTP_XML_FILE	XML Type	Yes	XML FILE: The XML file to be sent by SFTP.
SHRSFTP_SENT_DATE	DATE	Yes	SENT DATE: Date on which file was resent.
SHRSFTP_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRSFTP_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
SHRSFTP_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Transcript Delivery Methods Table (SHRTDEL)

This table is used to store rules for eTranscript delivery method data. The delivery method is mapped to the PESC output requested in the order and the associated Banner output type that is needed on the Transcript Request Form (SHATPRT) to generate the correct output for the order (PDF, XML, or paper). The data in this table is displayed in the Delivery Types block on the eTranscript Rule Form (SHRTETC).

This table uses the following Primary Key:

```
PK_SHRTDEL PRIMARY KEY
(SHRTDEL_ETME_CODE, SHRTDEL_PESC_ELECTRONIC_FORMAT)
```

This table uses the following Foreign Key:

```
FK1_SHRTDEL_INV_STVETME_KEY
```

The following columns are in this table.

Column	Attribute	Null	Comment
SHRTDEL_ETME_CODE	VARCHAR2(10)	No	TRANSCRIPT DELIVERY PESC METHOD: The PESC delivery method to be used for the transcript.
SHRTDEL_PESC_ELECTRONIC_FORMAT	VARCHAR2(10)	No	PESC ELECTRONIC TRANSCRIPT FORMAT: The PESC Electronic format to be used for the transcript. Values are PDF, XML, PAPER.
SHRTDEL_USER_ID	VARCHAR2(30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHRTDEL_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRTDEL_BANNER_SEND_TYPE	VARCHAR2(1)	Yes	BANNER SEND TYPE: Indicates the transcript format Banner will use to send the transcript. Values are D - PDF, P - XML, blank or Null - paper transcript.
SHRTDEL_DATA_ORIGIN	VARCHAR2(30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRTDEL_SURROGATE_ID	NUMBER(19)	Yes	SURROGATE ID: The surrogate ID for this record.

Column	Attribute	Null	Comment
SHRTDEL_VERSION	NUMBER(19)	Yes	VERSION: The optimistic lock token for this record.
SHRTDEL_VPDI_CODE	VARCHAR2(6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Enrollment Degree Information Table (SHRTEDI)

This table is used to store eTranscript degree and certificate earned data, including the award year, for the student and order ID. The data in this table is displayed in the Enrollment History block on the eTranscript Request Summary Form (SHAETOR).

This table uses the following Primary Key:

```
PK_SHRTEDI PRIMARY KEY (SHRTEDI_SURROGATE_ID)
```

This table uses the following non-Unique Index:

```
SHRTEDI_ORDER_ID_INDEX (SHRTEDI_ORDER_ID)
```

This table uses the following Oracle Sequence:

```
SHRTEDI_SURROGATE_ID_SEQUENCE
```

The minimum value for the Oracle sequence is 1. The maximum value is 999999999. Numbering starts with 1 and is incremented by 1.

The following columns are in this table.

Column	Attribute	Null	Comment
SHRTEDI_ORDER_ID	VARCHAR2(35)	No	ORDER ID: The unique transcript order number assigned by the NSC that consists of an order and suborder number.
SHRTEDI_DEGREE_OR_AWARD_NAME	VARCHAR2(80)	No	DEGREE OR AWARD NAME: The degree or award name.
SHRTEDI_AWARD_YEAR	VARCHAR2(4)	No	AWARD YEAR: The award year of the degree or award.
SHRTEDI_USER_ID	VARCHAR2(30)	No	USER ID: The user ID of the person who inserted or last updated this record.

Column	Attribute	Null	Comment
SHRTEDI_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRTEDI_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRTEDI_SURROGATE_ID	NUMBER (19)	Yes	SURROGATE ID: The surrogate ID for this record.
SHRTEDI_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
SHRTEDI_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Enrollment History Programs Table (SHRTEHP)

This table is used to store eTranscript enrollment history program data for the student and order ID, such as enrollment start and end year for a specific school and/or program name. The data in this table is displayed in the Enrollment History block on the eTranscript Request Summary Form (SHAETOR).

This table uses the following Primary Key:

```
PK_SHRTEHP PRIMARY KEY (SHRTEHP_SURROGATE_ID)
```

This table uses the following non-Unique Index:

```
SHRTEHP_ORDER_ID_INDEX (SHRTEHP_ORDER_ID)
```

This table uses the following Oracle Sequence:

```
SHRTEHP_SURROGATE_ID_SEQUENCE
```

The minimum value for the Oracle sequence is 1. The maximum value is 999999999. Numbering starts with 1 and is incremented by 1.

The following columns are in this table.

Column	Attribute	Null	Comment
SHRTEHP_ORDER_ID	VARCHAR2 (35)	No	ORDER ID: The unique transcript order number assigned by the NSC that consists of an order and suborder number.
SHRTEHP_SCHOOL_OR_PROG_NAME	VARCHAR2 (60)	No	SCHOOL OR PROGRAM NAME: The school or program name for the Enrollment detail.
SHRTEHP_START_YEAR	VARCHAR2 (14)	No	START YEAR: The start year of the school or program.
SHRTEHP_END_YEAR	VARCHAR2 (14)	Yes	END YEAR: The end year of the school or program.
SHRTEHP_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHRTEHP_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRTEHP_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRTEHP_SURROGATE_ID	NUMBER (19)	Yes	SURROGATE ID: The surrogate ID for this record.
SHRTEHP_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
SHRTEHP_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Transcript Order Detail Table (SHRTEOD)

This table is used to store transcript order details including student demographic information and recipient information. The data in this table is displayed in the Attachment Information and Recipient/Order Information blocks on the eTranscript Request Summary Form (SHAETOR).

This table uses the following Primary Key:

PK_SHRTEOD PRIMARY KEY (SHRTEOD_ORDER_ID)

This table uses the following Foreign Key:

FK1_SHRTEOD_INV_STVTERM_KEY

The following columns are in this table.

Column	Attribute	Null	Comment
SHRTEOD_ORDER_ID	VARCHAR2 (35)	No	ORDER ID: The unique transcript order number assigned by the NSC that consists of an order and suborder number.
SHRTEOD_VENDOR_NAME	VARCHAR2 (60)	No	VENDOR NAME: the name of the Vendor that submitted the transcript order.
SHRTEOD_TRANSMISSION_DATE	DATE	No	TRANSMISSION DATE: The date that the transcript was sent to the NSC.
SHRTEOD_ATTACHMENT_REV_IND	VARCHAR2 (1)	No	ATTACHMENTS REVIEWED INDICATOR: Attachment Reviewed Indicator. Valid values are (Y)es (N)o. Default value is N.
SHRTEOD_CONTACT_IND	VARCHAR2 (1)	No	CONTACT INDICATOR: Contact Indicator. Valid values are (Y)es (N)o. Default value is N.
SHRTEOD_CURR_ENROLLED_IND	VARCHAR2 (1)	No	CURRENTLY ENROLLED INDICATOR: Currently Enrolled Indicator. Valid values are (Y)es (N)o. Default value is N.
SHRTEOD_RECIP_SEALED_IND	VARCHAR2 (1)	No	SEALED ENVELOPE INDICATOR: Sealed Envelope Indicator. Valid values are (Y)es (N)o. Default value is N.
SHRTEOD_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHRTEOD_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRTEOD_DOCUMENT_ID	VARCHAR2 (120)	Yes	DOCUMENT ID: The File Transmission Date and Time stamp with additional unique qualifying characters.
SHRTEOD_DOCUMENT_TYPE	VARCHAR2 (25)	Yes	DOCUMENT TYPE: The Type and purpose of document being transmitted.
SHRTEOD_DOCUMENT_PROCESS_CDE	VARCHAR2 (25)	Yes	DOCUMENT PROCESS CODE: This code indicates a TEST or PRODUCTION document.
SHRTEOD_DUNS_CDE	VARCHAR2 (9)	Yes	DUNS CODE: This code the destination or organization code of the vendor creating the request.

Column	Attribute	Null	Comment
SHRTEOD_DESTINATION_ORG_NAME	VARCHAR2 (60)	Yes	DESTINATION ORGANIZATION NAME: the name of the Organization that the transcript order will be sent to.
SHRTEOD_DESTINATION_OPEID_CDE	VARCHAR2 (8)	Yes	DESTINATION OPEID CODE: This field defines the Destination OPEID code.
SHRTEOD_TRANSMISSION_TYPE	VARCHAR2 (25)	Yes	TRANSMISSION TYPE: Transmission Type of the Order.
SHRTEOD_ATTACHMENT_URL	VARCHAR2 (225)	Yes	ATTACHMENT URL: Attachment URL. The URL address of the attachment.
SHRTEOD_ATT_SPECIAL_INSTRUCT	VARCHAR2 (255)	Yes	ATTACHMENT SPECIAL INSTRUCTIONS: Attachment Special Instructions. Special Instructions for managing the attachment.
SHRTEOD_FORMER_FIRST_NAME	VARCHAR2 (60)	Yes	FORMER FIRST NAME: This field identifies the former first name of person.
SHRTEOD_FORMER_MIDDLE_NAME	VARCHAR2 (60)	Yes	FORMER MIDDLE NAME: This field identifies the former middle name of person.
SHRTEOD_FORMER_LAST_NAME	VARCHAR2 (60)	Yes	FORMER LAST NAME: This field identifies the former last name of person.
SHRTEOD_STREET_LINE1	VARCHAR2 (75)	Yes	STREET_LINE1: This field identifies the first street line of the student address.
SHRTEOD_STREET_LINE2	VARCHAR2 (75)	Yes	STREET_LINE2: This field identifies the second street line of the student address.
SHRTEOD_CITY	VARCHAR2 (50)	Yes	CITY: This field identifies the city of the student address.
SHRTEOD_STATE	VARCHAR2 (30)	Yes	STATE: This field identifies the state of the student address.
SHRTEOD_ZIP	VARCHAR2 (17)	Yes	ZIP: This field identifies the zip code of the student address.
SHRTEOD_COUNTRY	VARCHAR2 (5)	Yes	COUNTRY: This field identifies the country of the student address.
SHRTEOD_BIRTH_DATE	DATE	Yes	BIRTH DATE: This field identifies the birth date of the student address.
SHRTEOD_SSN	VARCHAR2 (9)	Yes	SSN: This field maintains person social security number.
SHRTEOD_PHONE_NUMBER	VARCHAR2 (20)	Yes	PHONE NUMBER: This field contains the student phone number.

Column	Attribute	Null	Comment
SHRTEOD_EMAIL_ADDR	VARCHAR2(128)	Yes	EMAIL ADDRESS: This field contains the student email address.
SHRTEOD_ATTENDANCE_ORG_NAME	VARCHAR2(60)	Yes	ATTENDANCE ORGANIZATION NAME: the name of the Organization of the current enrollment.
SHRTEOD_ATTENDANCE_OPEID_CDE	VARCHAR2(8)	Yes	ATTENDANCE OPEID CODE: This field defines the Attendance Organization OPEID code.
SHRTEOD_ENROLL_START_DATE	DATE	Yes	ENROLLMENT START DATE: This field contains the student enrollment start date.
SHRTEOD_ENROLL_END_DATE	DATE	Yes	ENROLLMENT END DATE: This field contains the student enrollment end date.
SHRTEOD_RECIPIENT_ATT	VARCHAR2(60)	Yes	RECIPIENT ATTENTION: This field defines the attention to identifier of the recipient.
SHRTEOD_RECIPIENT_NAME	VARCHAR2(60)	Yes	RECIPIENT NAME: This field defines the recipient name.
SHRTEOD_RECIPIENT_OPEID_CDE	VARCHAR2(8)	Yes	RECIPIENT OPEID CODE: This field defines the recipient OPEID code.
SHRTEOD_RECIP_STREET_LINE1	VARCHAR2(75)	Yes	RECIPIENT STREET_LINE1: This field identifies the first street line of the recipient address.
SHRTEOD_RECIP_STREET_LINE2	VARCHAR2(75)	Yes	RECIPIENT STREET_LINE2: This field identifies the second street line of the recipient address.
SHRTEOD_RECIPIENT_CITY	VARCHAR2(50)	Yes	RECIPIENT CITY: This field identifies the city of the recipient address.
SHRTEOD_RECIPIENT_STATE	VARCHAR2(30)	Yes	RECIPIENT STATE: This field identifies the state of the recipient address.
SHRTEOD_RECIP_EMAIL_ADDRESS	VARCHAR2(128)	Yes	RECIPIENT EMAIL ADDRESS: This field contains the recipient email address.
SHRTEOD_RECIP_PHONE_NUMBER	VARCHAR2(20)	Yes	RECIPIENT PHONE NUMBER: This field contains the recipient phone number.
SHRTEOD_RECIPIENT_COUNTRY	VARCHAR2(30)	Yes	RECIPIENT COUNTRY: This field identifies the country of the recipient address.
SHRTEOD_RECIP_FAX_NUMBER	VARCHAR2(20)	Yes	RECIPIENT FAX NUMBER: This field contains the recipient fax number.

Column	Attribute	Null	Comment
SHRTEOD_RECIPIENT_ZIP	VARCHAR2 (30)	Yes	RECIPIENT ZIP: This field identifies the zip code of the recipient address.
SHRTEOD_RECIP_NBR_OF_COPIES	NUMBER (2)	Yes	RECIPIENT NUMBER OF COPIES: This field contains the number of copies of the transcript to send to the recipient.
SHRTEOD_RECIP_TRANS_TYPE	VARCHAR2 (90)	Yes	RECIPIENT TRANSCRIPT TYPE: This field contains the Transcript Type sent from the vendor. These values are limited to PESC enumerations such as Undergraduate, Law, Pharmacy, etc.
SHRTEOD_RECIP_TRANS_PURPOSE	VARCHAR2 (70)	Yes	RECIPIENT TRANSCRIPT PURPOSE: This field contains the recipient Transcript Purpose such as Admission, Certificate or Licensure, or Self.
SHRTEOD_RECIP_DELIVERY_METHOD	VARCHAR2 (70)	Yes	RECIPIENT DELIVERY METHOD: This field contains the recipient Delivery Method such as Electronic, Express, or Hold for Pickup.
SHRTEOD_RECIP_SEND_TYPE	VARCHAR2 (30)	Yes	RECIPIENT SEND TYPE: This field contains the recipient Send Type such as PDF, XML or Paper.
SHRTEOD_RECIP_SPEC_INSTRUCT	VARCHAR2 (255)	Yes	RECIPIENT SPECIAL INSTRUCTIONS: This field contains any special instructions for the recipient.
SHRTEOD_RECIP_COMMENTS	VARCHAR2 (255)	Yes	RECIPIENT COMMENTS: This field contains any comments for the recipient.
SHRTEOD_TERM_CODE_HOLD_GRADES	VARCHAR2 (6)	Yes	HOLD FOR GRADES TERM: This field contains the term code to be used to submit a future request based on term.
SHRTEOD_HOLD_DEGREE_CURRICULUM	VARCHAR2 (60)	Yes	HOLD FOR DEGREE CURRICULUM DESCRIPTION: This field contains a degree curriculum description used to submit a future request based on degree.
SHRTEOD_DEGREE_CURR_SEQNO	NUMBER (4)	Yes	DEGREE CURRICULUM SEQUENCE: This field contains a degree curriculum sequence number used to locate a degree curriculum for the student.

Column	Attribute	Null	Comment
SHRTEOD_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRTEOD_SURROGATE_ID	NUMBER (19)	Yes	SURROGATE ID: The surrogate ID for this record.
SHRTEOD_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
SHRTEOD_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Summary Status Table (SHRTEOS)

This table is used to store eTranscript order status history data for the order ID. The data in this table is displayed in the Order History block on the eTranscript Request Summary Form (SHAETOR). The data in this table can also be displayed from the **Status** field in the eTranscript Status Summary Inquiry Form (SHIETSS). The status history records are displayed in the Banner forms in reverse chronological order (most recent status first).

This table uses the following Primary Key:

```
PK_SHRTEOS PRIMARY KEY (SHRTEOS_SURROGATE_ID)
```

This table uses the following Foreign Key:

```
FK1_SHRTEOS_INV_STVETST_KEY
```

This table uses the following Oracle Sequence:

```
SHRTEOS_SURROGATE_ID_SEQUENCE
```

The minimum value for the Oracle sequence is 1. The maximum value is 999999999. Numbering starts with 1 and is incremented by 1.

This table uses the following Non-Unique Indexes:

```
SHRTEOS_ORDER_ID_INDEX
```

```
SHRTEOS_PIDM_INDEX
```

The following columns are in this table.

Column	Attribute	Null	Comment
SHRTEOS_ORDER_ID	VARCHAR2 (35)	No	ORDER ID: The unique transcript order number assigned by the NSC that consists of an order and suborder number.
SHRTEOS_ETST_CODE	VARCHAR2 (4)	No	ORDER STATUS CODE: The order status code for the transcript order.
SHRTEOS_ETST_DATE	DATE	No	ORDER STATUS DATE: The date that the order status code is created.
SHRTEOS_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHRTEOS_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRTEOS_SURROGATE_ID	NUMBER (19)	Yes	SURROGATE ID: The surrogate ID for this record.
SHRTEOS_PIDM	NUMBER (8)	Yes	PIDM: Internal identification number of the person.
SHRTEOS_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRTEOS_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
SHRTEOS_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.
SHRTEOS_CLOUD_IND	VARCHAR2 (1)	No	CLOUD RESPONDED INDICATOR: This indicator identifies if a response was sent to the Ellucian Cloud for this status.

eTranscript Transcript Hold for Degree or Grades Table (SHRTHLD)

This table is used to store the rules that control when eTranscript orders with requests to hold for degrees and hold for grades can be processed. The data in this table is displayed in the Hold for Degree or Grades block on the eTranscript Rule Form (SHRTETC).

This table uses the following Primary Key:

```
PK_SHRTHLD PRIMARY KEY (SHRTHLD_SEQNO)
```

This table uses the following Unique Keys:

SHRTHLD_KEY_INDEX1 (SHRTHLD_TERM_CODE_HOLD_DEGREE)
 SHRTHLD_KEY_INDEX2 (SHRTHLD_TERM_CODE_HOLD_GRADES)

This table uses the following Foreign Keys:

FK1_SHRTHLD_INV_STVTERM_KEY
 FK2_SHRTHLD_INV_STVTERM_KEY

The following columns are in this table.

Column	Attribute	Null	Comment
SHRTHLD_SEQNO	NUMBER (10)	No	SEQ NUMBER: Unique Sequence number for each record.
SHRTHLD_RELEASE_DATE	DATE	No	RELEASE DATE: The date the process will verify the hold requirement (grade or degree) has been met.
SHRTHLD_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHRTHLD_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRTHLD_TERM_CODE_HOLD_DEGREE	VARCHAR2 (6)	Yes	HOLD TERM FOR DEGREE: The term the student has requested hold for degree processing.
SHRTHLD_TERM_CODE_HOLD_GRADES	VARCHAR2 (6)	Yes	HOLD TERM FOR GRADES: The term the student has requested hold for grade processing.
SHRTHLD_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRTHLD_SURROGATE_ID	NUMBER (19)	Yes	SURROGATE ID: The surrogate ID for this record.
SHRTHLD_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
SHRTHLD_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Transcript Level Table (SHRTLVL)

This table is used to store the rules for how the third party transcript types specified in an eTranscript order will be mapped to an institution-specific Banner transcript level to produce the appropriate output when the transcript order is fulfilled. The data in this table is displayed in the Levels block on the eTranscript Rule Form (SHRTETC).

This table uses the following Primary Key:

PK_SHRTLVL PRIMARY KEY (SHRTLVL_ETTP_CODE)

This table uses the following Foreign Key:

FK1_SHRTLVL_INV_STVETTP_KEY

The following columns are in this table.

Column	Attribute	Null	Comment
SHRTLVL_ETTP_CODE	VARCHAR2(10)	No	PESC TRANSCRIPT TYPE: The PESC transcript type.
SHRTLVL_LEVL_CODE_BANNER	VARCHAR2(2)	No	BANNER LEVEL CODE: The student level code from Banner.
SHRTLVL_USER_ID	VARCHAR2(30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHRTLVL_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRTLVL_DATA_ORIGIN	VARCHAR2(30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRTLVL_SURROGATE_ID	NUMBER(19)	Yes	SURROGATE ID: The surrogate ID for this record.
SHRTLVL_VERSION	NUMBER(19)	Yes	VERSION: The optimistic lock token for this record.
SHRTLVL_VPDI_CODE	VARCHAR2(6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Transcript Types Table (SHRTTYP)

This table is used to store the rules for how third party transcript purposes and third party transcript types specific to an eTranscript order will be mapped to a Banner transcript type to produce the appropriate output when the order is fulfilled. The data in this table is displayed in the Transcript Types block on the eTranscript Rule Form (SHRTETC).

This table uses the following Primary Key:

PK_SHRTTYP PRIMARY KEY (SHRTTYP_ETTP_CODE, SHRTTYP_ETPU_CODE)

This table uses the following Foreign Keys:

FK1_SHRTTYP_INV_STVETTP_KEY

FK1_SHRTTYP_INV_STVETPU_KEY

FK1_SHRTTYP_INV_STVTPRT_KEY

The following columns are in this table.

Column	Attribute	Null	Comment
SHRTTYP_ETTP_CODE	VARCHAR2(10)	No	PESC TRANSCRIPT TYPE: The PESC transcript type.
SHRTTYP_ETPU_CODE	VARCHAR2(10)	No	PESC TRANSCRIPT PURPOSE: The purpose for the transcript request.
SHRTTYP_TPRT_CODE_BANNER	VARCHAR2(4)	No	BANNER TRANSCRIPT TYPE: The Banner transcript type.
SHRTTYP_USER_ID	VARCHAR2(30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHRTTYP_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRTTYP_DATA_ORIGIN	VARCHAR2(30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRTTYP_SURROGATE_ID	NUMBER(19)	Yes	SURROGATE ID: The surrogate ID for this record.
SHRTTYP_VERSION	NUMBER(19)	Yes	VERSION: The optimistic lock token for this record.
SHRTTYP_VPDI_CODE	VARCHAR2(6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Transcript Order Hold Table (SHRTXHL)

This table is used to store information about the student's active transcript holds that have been sent to the Ellucian Cloud and the third party vendor through order status updates. Storing holds that have been previously sent in status updates allows the order status logic to determine if new holds need to be communicated in subsequent order status updates to the Ellucian Cloud and the third party vendor. The data in this table is not visible on any forms in Banner.

This table uses the following Primary Key:

PK_SHRTXHL PRIMARY KEY (SHRTXHL_SURROGATE_ID)

This table uses the following Foreign Keys:

FK1_SHRTXHL_INV_SHRTEOS_KEY

FK1_SHRTXHL_INV_STVHLDD_KEY

This table uses the following Oracle Sequence:

SHRTXHL_SURROGATE_ID_SEQUENCE

The minimum value for the Oracle sequence is 1. The maximum value is 999999999. Numbering starts with 1 and is incremented by 1.

The following columns are in this table.

Column	Attribute	Null	Comment
SHRTXHL_ORDER_ID	VARCHAR2 (35)	No	ORDER ID: The unique transcript order number assigned by the NSC that consists of an order and suborder number.
SHRTXHL_ETST_SURROGATE_ID	NUMBER (19)	No	ORDER SURROGATE ID: The surrogate ID for which this XML was sent.
SHRTXHL_ETST_DATE	DATE	No	ORDER STATUS DATE: The date that the order status code is created.
SHRTXHL_HLDD_CODE	VARCHAR2 (2)	No	HOLD CODE: This field identifies the type of hold on the person record.
SHRTXHL_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
SHRTXHL_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
SHRTXHL_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
SHRTXHL_SURROGATE_ID	NUMBER (19)	No	SURROGATE ID: The surrogate ID for this record.
SHRTXHL_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
SHRTXHL_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Delivery Method Validation Table (STVETME)

This table is used to store the valid values that can be used for eTranscript delivery method codes. Ellucian delivers the seed data that is needed in this table. The data in this table must not be added, deleted, or modified, or eTranscript processing could be adversely affected.

This table uses the following Primary Key:

PK_STVETME PRIMARY KEY (STVETME_CODE)

The following columns are in this table.

Column	Attribute	Null	Comment
STVETME_CODE	VARCHAR2 (10)	No	PESC METHOD CODE: eTranscript PESC Method Code.
STVETME_DESC	VARCHAR2 (60)	No	PESC METHOD DESCRIPTION: eTranscript PESC Method Description.
STVETME_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
STVETME_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
STVETME_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
STVETME_SURROGATE_ID	NUMBER (19)	Yes	SURROGATE ID: The surrogate ID for this record.
STVETME_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
STVETME_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript PESC Transcript Purpose Validation Table (STVETPU)

This table is used to store the valid values that can be used for eTranscript PESC transcript purpose codes. Ellucian delivers the seed data that is needed in this table. The data in this table must not be added, deleted, or modified, or eTranscript processing could be adversely affected.

This table uses the following Primary Key:

PK_STVETPU PRIMARY KEY (STVETPU_CODE)

The following columns are in this table.

Column	Attribute	Null	Comment
STVETPU_CODE	VARCHAR2 (10)	No	PESC TRANSCRIPT PURPOSE CODE: PESC purpose code for the eTranscript.
STVETPU_DESC	VARCHAR2 (60)	No	PESC PURPOSE DESCRIPTION: PESC Purpose description for the eTranscript.
STVETPU_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
STVETPU_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
STVETPU_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
STVETPU_SURROGATE_ID	NUMBER (19)	Yes	SURROGATE ID: The surrogate ID for this record.
STVETPU_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
STVETPU_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript Order Status Validation Table (STVETST)

This table is used to store the valid values that can be used for eTranscript order status codes. Ellucian delivers the seed data that is needed in this table. The data in this table must not be added, deleted, or modified, or eTranscript processing could be adversely affected.

This table uses the following Primary Key:

PK_STVETST PRIMARY KEY (STVETST_CODE)

The following columns are in this table.

Column	Attribute	Null	Comment
STVETST_CODE	VARCHAR2 (4)	No	ORDER STATUS: The Order Status for the transcript request.
STVETST_SEQNO	NUMBER (2)	No	SEQUENCE NUMBER: The sequence number of the Order Status used to determine display order
STVETST_DESC	VARCHAR2 (30)	No	ORDER STATUS DESCRIPTION: The Order Status description.

Column	Attribute	Null	Comment
STVETST_SEND_VENDOR_IND	VARCHAR2 (1)	No	SEND VENDOR INDICATOR: Send Indicator Valid values are: (Y)es (N)o. Default value is N.
STVETST_SEND_CLOUD_IND	VARCHAR2 (1)	No	SEND CLOUD INDICATOR: Send Indicator Valid values are: (Y)es (N)o. Default value is N.
STVETST_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
STVETST_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
STVETST_TRANSLATION_VALUE	VARCHAR2 (50)	Yes	ORDER STATUS TRANSLATION VALUE: The Translation value to be sent.
STVETST_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
STVETST_SURROGATE_ID	NUMBER (19)	Yes	SURROGATE ID: The surrogate ID for this record.
STVETST_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
STVETST_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

eTranscript PESC Transcript Type Validation Table (STVETTP)

This table is used to store the valid values that can be used for eTranscript PESC transcript type codes. Ellucian delivers the seed data that is needed in this table. The data in this table must not be added, deleted, or modified, or eTranscript processing could be adversely affected.

This table uses the following Primary Key:

```
PK_STVETTP PRIMARY KEY (STVETTP_CODE)
```

The following columns are in this table.

Column	Attribute	Null	Comment
STVETTP_CODE	VARCHAR2 (10)	No	PESC TRANSCRIPT TYPE: The PESC transcript type for the eTranscript.
STVETTP_DESC	VARCHAR2 (30)	No	PESC TRANSCRIPT TYPE DESCRIPTION: The PESC transcript type for eTranscript.
STVETTP_USER_ID	VARCHAR2 (30)	No	USER ID: The user ID of the person who inserted or last updated this record.
STVETTP_ACTIVITY_DATE	DATE	No	ACTIVITY DATE: The date that information in this record was entered or last updated.
STVETTP_DATA_ORIGIN	VARCHAR2 (30)	Yes	DATA ORIGIN: The latest source for the data contained in this record.
STVETTP_SURROGATE_ID	NUMBER (19)	Yes	SURROGATE ID: The surrogate ID for this record.
STVETTP_VERSION	NUMBER (19)	Yes	VERSION: The optimistic lock token for this record.
STVETTP_VPDI_CODE	VARCHAR2 (6)	Yes	VPDI CODE: The code representing the entity to which this record belong to for Multi-entity Processing support.

Changed table

The following table has been changed for this enhancement.

Transcript Request Table (SHTTRAN)

A new value of *D* (PDF) has been added to the SHTTRAN_TYPE column for use with eTranscript processing. The SHTTRAN_TYPE value determines which process is used to produce the transcript and which output format is used for the transcript. Values for this column are: *E* (EDI), *P* (PESC), *N* (Paper), *D* (PDF).

A new column has been added to the table.

SHTTRAN_ORDER_ID	NULL	VARCHAR2 (35)
------------------	------	-----------------

The column comment is: ORDER ID: The unique transcript order number assigned by the third party vendor that consists of an order and suborder number.

When the SHTTRAN record is created from an eTranscript order, the eTranscript order number is copied into the SHTTRAN_ORDER_ID field.

New packages

The following packages are new for this enhancement and are used to automate eTranscript order processing.

eTranscript Transcript Processing Package (SHKEBLD/SHKEBL1)

This package and package body are used to support the generation of eTranscript output. The package contains the procedures used to create the transcript request record (SHTTRAN) and the procedures used to submit the request to the queue to run either SHRETRN or SHRTRTC. After the appropriate process is run, a call is made from the process to send a request to the queue to run SHRPOST, for the order status that needs to be communicated to the Ellucian Cloud.

The package also contains the function that checks to see if a request that is being held for degree can be released. These functions and procedures are called by the SHKEORS order status package. The procedure to submit the request to the queue for processing is also called by the eTranscript SFTP Transmission Resend Form (SHASFTP).

Here are the package components:

- `f_check_hold_for_degree` - Function that returns *Y* or *N* to determine if hold for degree has been released.
- `f_xml_value_to_banner` - Function that returns the Banner value from SOAXREF.
- `p_create_shttran` - Procedure that inserts records into SHTTRAN for a transcript order.
- `p_call_process` - Procedure that sets up the job submission parameters for SHRETRN or SHRTRTC and initiates the process.
- `p_insert_shrpost_parms` - Procedure that inserts job submission parameters into GJBPRUN for SHRPOST.

eTranscript Common Matching Package (SHKECMN/SHKECMN1)

This package and package body are called by the Find a Student API to attempt to match the person information for an order with a valid Banner ID. The API calls the

`p_do_match` procedure, which uses the Banner General common matching routines and returns the Banner ID to the API when an exact match is found. When no match is found or potential matches are found, a *Null* value is returned.

The `p_do_match` procedure is also used by the SHKEXML package. If an order is initially received without the Banner ID, SHKEXML will call the procedure to attempt to find an exact match for the person information for the order. If a match is found, the order will be updated with the Banner ID and PIDM. This addresses the situation where the Ellucian Cloud or the Banner system is unavailable, and the APIs that are normally called during the order process could not be executed. If the Find a Student API could not be called, then an order would arrive without a match to a Banner ID.

Here are the package components:

- `f_get_matching_rule` - Function that retrieves the common matching rule to be used.
- `p_do_match` - Procedure that performs the common matching routines and returns a Banner ID if an exact match is found. Otherwise it returns a *Null* value if no exact match is found, or if one or more potential matches is found.

eTranscript Order Status Package (SHKEORS/ SHKEORS1)

This package and package body are used to update the Ellucian Cloud with the transcript order status. This package is the engine that drives automated order processing. It is called initially by the Ellucian Cloud immediately after Banner sends back the status of *OR - Order Received*, after a transcript order is loaded into Banner. The Update Order Cloud Status API sends the order ID as the parameter. The Ellucian Cloud will also request order status updates once a day with some exceptions that are detailed in the “e-Transcript Functional” section of the release guide that describes order status processing.

Here is the sequence of the logic that is followed each and every time the order status package is executed, regardless of the current status of an order.

1. The process checks if the order has expired.

An order would expire if the number of auto cancel days has been exceeded when the current status of an order is *HR - Hold for Restrictions* or *NF - Student Not Found*.

The `SHRTEOS_ETST_DATE-SYDATE` should be less than the `SHBTETC_AUTO_CANCEL_DAYS`.

When the order has expired, the *CA - Canceled* status is sent as a response in the `<StatusCode>` element in the XML.

2. The process checks if the SHBTEOT_BANNER_ID is *Null* and the SHBTEOT_STUDENT_NOT_FOUND_IND is *N*. If so, the status of *NR - Needs Research* is sent in the <StatusCode> element in the XML.
3. The process checks if the SHBTEOT_BANNER_ID is *Null* and the SHBTEOT_STUDENT_NOT_FOUND_IND is *Y*. If so, the status of *NF - Student Not Found* is sent as a response in the <StatusCode> element and <NoRecord> in the <ResponseStatus> element in the XML.
4. The process checks if the SHBTEOT_ATTACHMENT_IND is *Y* and the SHRTEOD_ATTACHMENT_REV_IND is *N*. If so, the status of *AR - Attachment Needs Review* is sent in the <StatusCode> element in the XML.
5. The process checks if gb_hold.f_hold_exists and if the P_TRANS_HOLD is *Y* for the PIDM. If so, the status of *HR - Hold for Restrictions* is sent in the <StatusCode> element and <Hold> in the <ResponseStatus> element in the XML.

When the previous status and the current status are both *HR*, the process checks whether new holds have been added since the last status update occurred. If so, the values for <UpdateThirdParty> and <UpdateCloudStatus> are updated to *True*. If not, both are updated to *False*.

6. The process checks if the cursor returns *Y* for awaiting grades. If so, the status of *AG - Awaiting Grades* is sent in the <StatusCode> element in the XML.

When the process checks for the status of *AG* for the first time, it determines whether the SHRTEOD_TERM_CODE_HOLD_GRADES is populated. If it is populated, the status of *AG* is sent as a response.

When the package is called again, it checks if a record exists in SHRTHLD for the term with a release date that is greater than the system date or if the record has the *AG* status. It uses the STVRSTS, SSBSECT, SFRSTCR, SHRTEOD tables for the given term and PIDM, and the following AND/OR conditions.

The SSBSECT_GRADABLE_IND is *Y* AND

(The STVRSTS_INCL_SECT_ENRL is *Y*, OR the STVRSTS_GRADABLE_IND is *Y*, OR the STVRSTS_AUTO_GRADE is *Null*) AND

The SFRSTCR_GRDE_DATE is *Null*.

7. The process checks if the shkebld.f_check_hold_for_degree(p_pidm, m_seq_no) function returns *Y* for awaiting degree. If so, the status of *AD - Awaiting Degrees* is sent in the <StatusCode> element in the XML.

When the process checks for the status of *AD* for the first time, it checks whether the SHRTEOD_DEGREE_CURR_SEQNO is populated. If it is populated, the status of *AD* is sent as a response.

When the package is called again, it checks if the `shkebl.d.f.check_hold_for_degree` function returns *N* for awaiting degree. If so, the status of *AD* is sent as a response.

8. The process checks if the `SHBTEOT_MANUAL_IND` is *Y*. If so, the status of *FO - Offline Record Sent* is sent in the `<StatusCode>` element and `<OfflineRecordSent>` in the `<ResponseStatus>` element in the XML.
9. The process checks if the `SHBTEOT_CANCEL_IND` is *Y* or if the order has expired. If so, the status of *CA - Canceled* is sent in the `<StatusCode>` element and `<Canceled>` in the `<ResponseStatus>` element in the XML.
10. When all the above checks have been passed, the status of *RG - Ready to Generate* is sent in the `<StatusCode>` element in the XML.

Here is a general overview of the order status logic processing.

1. When the Ellucian Cloud calls/polls the package for an update, the following occurs.
 - 1.1. When a new status record is inserted, the logic looks at the setting of the `SHRTEOS_CLOUD_IND` to determine if the Ellucian Cloud was previously notified.
 - 1.2. When the `SHRTEOS_CLOUD_IND` is set to *N*, the process updates the setting to *Y* and updates the `<UpdateThirdParty>` and `<UpdateCloudStatus>` values based on the **Send to Vendor** and **Send to Cloud** settings on STVESTS.
 - 1.3. When exception processing applies, the values are updated to *True*.

(Exception processing applies to status updates of *NF* to *AR*, *HR* to *AG*, and *HR* to *AD*.)
2. The next time the Ellucian Cloud calls the package for an update, the following occurs when a new status record *has not* been inserted.
 - 2.1. The logic looks at the setting of the `SHRTEOS_CLOUD_IND` to determine if the Ellucian Cloud was previously notified.
 - 2.2. In this case, the `SHRTEOS_CLOUD_IND` is set to *Y*, and the process updates the `<UpdateThirdParty>` and `<UpdateCloudStatus>` values to *False*.

This reflects that there has been no change in the status of the order since the previous update.
3. The next time the Ellucian Cloud calls the package for an update, the following occurs when a new status record *has been* inserted.
 - 3.1. The logic updates the `<UpdateThirdParty>` and `<UpdateCloudStatus>` values based on the **Send to Vendor** and **Send to Cloud** settings on STVESTS.

3.2. When exception processing applies, the values are updated to *True*.

(Exception processing applies to status updates of *NF* to *AR*, *HR* to *AG*, and *HR* to *AD*.)

3.3. The `SHRTEOS_CLOUD_IND` is set to *Y*.)

4. The next time the Ellucian Cloud calls the package for an update after the above calls have taken place, the following occurs when a new status record *has not been* inserted.

4.1. The logic looks at the setting of the `SHRTEOS_CLOUD_IND` to determine if the Ellucian Cloud was previously notified.

4.2. In this case, the `SHRTEOS_CLOUD_IND` is set to *Y*, and the process updates the `<UpdateThirdParty>` and `<UpdateCloudStatus>` values to *False*.

The exception to this logic is when new holds have been added. When holds are new, the `<UpdateThirdParty>` and `<UpdateCloudStatus>` values are updated to *True*.

For exception processing for status updates of *NF* to *AR*, *HR* to *AG*, and *HR* to *AD*, the outbound XML contains:

```
<Response>
<CreatedDateTime>2004-12-17T09:30:47-05:00</CreatedDateTime>
<RequestTrackingID>145299-1</RequestTrackingID>
<ResponseStatus>TranscriptOrderReceived</ResponseStatus>
<RequestedStudent>
<ResponseStatus>TranscriptRequestReceived</ResponseStatus>
```

eTranscript PDF Processing Package (SHKETRN/SHKETRN1)

This package and package body are used by the SHRETRN process to generate a PDF transcript. The package contains procedures that are used to add new fields to the PDF output to match the fields displayed on the paper transcript. Additional code can be added to these procedures when you wish to include new fields on the PDF output.

The procedures are:

- `p_main_ude_element`
- `p_student_ude_element`
- `p_acrec_ude_element`
- `p_acadsess_course_ude_element`

This package also contains logic for the manual transmission of transcripts when the SFTP process fails. A record is inserted when an SFTP failure occurs, including the order ID, sequence number, transcript type, XML file, and PDF file.

eTranscript XML Transcript Order Request Package (SHKEXML/SHKEXML1)

This package and package body are called when the user first submits the transcript order. They are used to process the eTranscript XML transcript request and parse the data into the appropriate database columns in the SHRORRE table. The data is then inserted into the SHRTEOS, SHRTEOD, and SHBTEOT tables. The data is pulled from the tables to create the XML file that is sent to the Ellucian Cloud. The query from the Ellucian Cloud and the response for the status of the transcript order is also performed by this package and package body.

Here is the logic that is followed.

1. The process converts the CLOB parameter to an XML type.
2. It then performs mapping and inserts the record into the SHRORRE, SHRTEOS, SHRTEOD, SHBTEOT, SHRTEDI and SHRTEHP tables.
3. If a Banner ID is found in the XML, the process checks for a SPRIDEN_PIDM for the ID. It inserts the PIDM into all PIDM columns.
4. If the Banner ID is *Null*, the process calls the SHKECMN package to attempt to match an ID for the first name, last name, birthdate, and so on.
5. The Response XML is generated with the status of *OR*.

This package also checks whether the Banner ID is populated. If not, the eTranscript Common Matching Package SHKECMN is called to check for a Banner ID for the PIDM and entered data such as first name, last name, date of birth, SSN, and so on.

Changed package

The following package has been changed for this enhancement.

SOKADVQ0/SOKADVQ1

This package has been modified to process the new queues developed for eTranscript production. The package is called by the SHKEBLD transcript processing package and the SHRADVQ queue listener process. A series of procedures has been added to the package to manage the new queues for eTranscript processing.

Here are the package components:

- `p_shretrn_submit` - Procedure that submits the request to the queue to run the SHRETRN process for an order.
- `p_dequeue_etran_request` - Procedure used by the SHRADVQ listener process to listen for messages on the ETRANSCRIPT_REQUEST_Q object.
- `p_kill_all_etranscript_servers` - Procedure that kills all active and listening SHRADVQ listeners.
- `p_purge_etranscript_queue` - Procedure that purges all messages in the eTranscript queues.
- `p_enqueue_etran_response_id` - Procedure used in the SHRADVQ listener process to send the response back to the calling procedure.
- `f_shradvq_running` - Function that determines how many instances of the SHRADVQ queue listener process are running at a specific point in time.
- `p_start_etranscript_request_q` - Procedure that starts the ETRANSCRIPT_REQUEST_Q object.
- `p_start_etranscript_response_q` - Procedure that starts the ETRANSCRIPT_RESPONSE_Q object.
- `p_stop_etranscript_request_q` - Procedure that stops the ETRANSCRIPT_REQUEST_Q.
- `p_stop_etranscript_response_q` - Procedure that stops the ETRANSCRIPT_RESPONSE_Q.
- `p_dequeue_etran_response_id` - Procedure used by the `sokadvq.p_submit_shretrn` or `sokadvq.p_submit_shretrn` procedures to listen for a response on the ETRANSCRIPT_RESPONSE_Q object for a specific message and correlation ID (which identifies the message to be listened for).
- (correlation ID. Correlation ID identifies the message to listen for,
- `p_shrtrtc_submit` - Procedure that submits the request to the queue to run the SHRTRTC process for an order.
- `p_ping_etranscript_servers` - Procedure that attempts to “ping” all SHRADVQ listeners to see if they are active and responding.
- `p_shrpost_submit` - Procedure that submits the request to the queue to run the SHRPOST process for an order.

New function

The following function is new for this release.

eTranscript Response Function (SHFERPL)

The `f_etranscript_response` function is used to generate the XML response for the eTranscript. The response is sent to the Ellucian Cloud by the XML Transcript Order Request Package (SHKEXML) and the Order Status Package (SHKEORS). This function also accepts the status and order number and sends the XML response back to the calling package.

The logic is as follows:

1. The process selects the `STVETST_TRANSLATION_VALUE` or the `STVETST_CODE` (based on the setting of the `STVETST_SEND_VENDOR_IND`), the `STVETST_SEND_VENDOR_IND`, and the `STVETST_SEND_CLOUD_IND` to be displayed as the values for `<ResponseStatus>`, `<UpdateThirdParty>`, and `<UpdateCloudStatus>`.
 - If the status has already been sent, the values for `<UpdateThirdParty>` and `<UpdateCloudStatus>` will be changed to *False*.
 - There is an exception when the status is changed from *HR* to *AG*, *HR* to *AD*, or *NF* to *AR*. The `<ResponseStatus>` will be changed to *TranscriptRequestReceived*, and the values for `<UpdateThirdParty>` and `<UpdateCloudStatus>` will be updated to *True*.
2. When the status is *HR*, the process checks for all holds for the PIDM. It then populates all holds in the Response XML `<ResponseHold>`. If a new hold has been added since the previous status check occurred, a record is inserted into the `SHRTXHL` table.
 - When a new hold is found, the values for `<UpdateThirdParty>` and `<UpdateCloudStatus>` are updated to *True*.
 - When no new hold is found, the values for `<UpdateThirdParty>` and `<UpdateCloudStatus>` are updated to *False*.
3. When the status is *AG* or *AD*, the process retrieves the value for `<PlannedReleaseDate>`.
4. The process uses these values, as well as values from the `SHRORRE`, `SHRTEOD`, `SHRTEOS`, and `SHBTEOT` tables, to compose an XML response. The response is sent back to the calling package, which then sends the XML response to the Ellucian Cloud.
5. The process updates the `SHRTEOS_CLOUD_IND` to *Y* (if it was set to *N*). The status is sent (when called by the Ellucian Cloud).

Here is an example with a portion of the XML for an order status update response.

```
?xml version="1.0" encoding="UTF-8" standalone="yes"??
```

```

<ns2:TranscriptResponse xmlns:ns2="urn:org:pecs:message:
TranscriptResponse:v1.2.0" xmlns:ns3="urn:org:pecs:core:
CoreMain:v1.12.0">
  <ns2:TransmissionData>
    <DocumentID>123456001</DocumentID>
    <CreatedDateTime>2013-11-03T12:42:00.000-05:00</
CreatedDateTime>
    <DocumentTypeCode>Request</DocumentTypeCode>
    <TransmissionType>Original</TransmissionType>
    <Source>
      <Organization>
        <OPEID>12345678</OPEID>
        <OrganizationName>LMM University</OrganizationName>
      </Organization>
    </Source>
    <Destination>
      <Organization>
        <DUNS>827034414</DUNS>
        <OrganizationName>National Student Clearinghouse</
OrganizationName>
      </Organization>
    </Destination>
    <DocumentProcessCode>TEST</DocumentProcessCode>
  </ns2:TransmissionData>
  <ns2:Response>
    <CreatedDateTime>2013-11-03T13:10:00.000-05:00</
CreatedDateTime>
    <RequestTrackingID>SH000009</RequestTrackingID>
    <ResponseStatus>NR</ResponseStatus>
    <RequestedStudent>
      <Person>
        <Name>
          <FirstName>Bonnie</FirstName>
          <LastName>Blackwell</LastName>
        </Name>
      </Person>
      <Attendance>
        <School>
          <OrganizationName>Ellucian University</
OrganizationName>
          <OPEID>12345678</OPEID>
        </School>
      </Attendance>
    </RequestedStudent>
  </ns2:Response>
</ns2:TranscriptResponse>

```

```

        <CurrentEnrollmentIndicator>True</
        CurrentEnrollmentIndicator>
    </Attendance>
    <UpdateContactsInformation>True</
    UpdateContactsInformation>
</RequestedStudent>
<DeliveryMethod>Electronic</DeliveryMethod>
<UserDefinedExtensions>
    <ErpStatusInfo>
        <UpdateThirdParty>False</UpdateThirdParty>
        <UpdateCloudStatus>False</UpdateCloudStatus>
        <StatusDateTime>2013-11-27T10:51:25.000-05:00</
        StatusDateTime>
        <StatusCode>NR</StatusCode>
        <PlannedReleaseDate/>
    </ErpStatusInfo>
</UserDefinedExtensions>
</ns2:Response>
</ns2:TranscriptResponse>

```

New database triggers

The following new database trigger are new for this release.

shttedi0.sql

This trigger is used to set the value of the SHRTEDI_SURROGATE_ID when a row is inserted into the SHRTEDI table.

shttehp0.sql

This trigger is used to set the value of the SHRTEHP_SURROGATE_ID when a row is inserted into the SHRTEHP table.

shtteos0.sql

This trigger is used to set the value of the SHRTEOS_SURROGATE_ID when a row is inserted into the SHRTEOS table.

New Banner view

The following Banner view is new for this release.

eTranscript Transcript Summary Status View (SHVTEOS)

This view is used to combine order status data from the SHRTEOS table and person data from the SPRIDEN table for display on the SHIETSS form. Order status summary and detail information is displayed on SHIETSS, as well as the student's name and ID. Order data is sorted at the form level by student last name and order ID.

The following columns are in this view.

```
SHVTEOS_ORDER_ID
SHVTEOS_ETST_CODE
SHVTEOS_ETST_DATE
SHVTEOS_USER_ID
SHVTEOS_ACTIVITY_DATE
SHVTEOS_SURROGATE_ID
SHVTEOS_PIDM
SHVTEOS_ROWID
SHVTEOS_ID
SHVTEOS_FIRST_NAME
SHVTEOS_MIDDLE_NAME
SHVTEOS_LAST_NAME
```

API access

The following privileges should be defined in the Banner Administrative account for eTranscript API access:

1. Define the Oracle Create Session privilege or the *USR_DEFAULT_CONNECT* Oracle role as the default role for the user.
2. Define the *BAN_DEFAULT_M* Oracle role as granted to the user. It does not need to be a default role, as it is password protected.
3. Define the *BANPROXY* access set in the Oracle/Banner Security Maintenance Form (GSASECR) or the *ALTER USER* username *GRANT CONNECT THROUGH BANPROXY*.

4. Define access to the General Menu (GUAGMNU) Banner security object using the Oracle/Banner Security Maintenance Form (GSASECR).

This is the minimum privilege access model for the account that can be used to execute the eTranscript APIs.

New APIs

The following APIs are new for this enhancement. These RESTful APIs are delivered in an `eTranscript.war` file as part of the upgrade process. They support real-time and automated processing of orders between the NSC, the Ellucian Cloud, and Banner.

Find a Student API

POST `/qapi/students`

This API is always called and looks for the last name and first name from SPRIDEN and the date of birth from SPBPERS. It also checks for additional required or optional data which includes the unverified student ID from SPRIDEN and the optional government issued ID (SSN) from SPBPERS.

The API calls the institution-specific common matching rule on the eTranscript Rules Form (SHRTETC) by calling the SHKECMN package. Common matching results are not displayed to the student.

If an exact match is found, the Banner ID is returned internally, and the student continues with the order. The process then executes three additional APIs.

- The Find Student Transcript Restrictions API checks for any active transcript holds, such as a library fine or a balance due in Accounts Receivable. For NSC-specific processing, the NSC school profile determines whether your institution will allow the order to continue when active holds exist.

Your institution-specific NSC profile also allows you to distinguish between student actionable holds which are displayed to the student and school actionable holds which are not displayed to the student. For more information about these types of holds please contact your NSC representative.
- At this point, the Get Ungraded Terms API and the Find Student Programs API could return values for future processing options for the order that can be displayed to the student if they are available.

If no match is found, or multiple possible matches are found, a *Null* value is returned internally, and the student sees a message to try again, if your institution accepts orders without a matching Banner ID. Active transcript holds are not checked until the order is

received in Banner. No future processing options for the order are displayed to the student when no match has been found.

Find Student Transcript Restrictions API

```
GET /api /students/{studentId}/transcript-restrictions
```

This API is called when an exact match is returned by the Find a Student API. The API checks for active transcript holds and returns the hold codes and descriptions for holds found. The student receives a message if actionable holds exist.

The `gb_hold` API finds active, current holds based on the setting of the **Transcript** indicator for the hold code on the Hold Type Code Validation Form (STVHLDD). Student holds can be viewed on the Hold Information Form (SOAHOLD) and in the Order History block of the eTranscript Transcript Request Summary Form (SHAETOR).

Get Student Ungraded Terms API

```
GET /api/students/{studentId}/ungraded_terms
```

This API checks for registration terms with one or more gradeable courses that remain ungraded and have not been rolled to academic history. The term code and description are returned. The list of terms is displayed on the NSC ordering page, and the student can select only one term for the transcript order.

Get Student Programs API

```
GET /api/students/{studentId}/programs
```

This API returns one or more unawarded degrees and/or programs in a 60 position concatenation of level description, plus degree description, plus program description. The degrees are selected from current and active curricula where that term's start and end date range on STVTERM includes the current date. For example, *Undergraduate Bachelor of Arts BA-HISTORY*. Multiple concatenations can be returned. The list is displayed on the third party transcript vendor ordering page, and the student can select only one pending degree.

If Banner degree records do not exist for the student (no SHRDGMR records exist), then existing active curriculum information (SORLCUR) associated with the student's learner record (SGBSTDN) will be used to obtain degree and/or program information that will be returned by the API. Because a term needs to be associated with a degree or program to find the appropriate SHRTETC release date, the term used is derived from the academic status and graduation status information on the General Student Form (SGASTDN). The **Graduation Term** field must be populated.

Determine student effective term

The `svq_sovlcur_term` view is used in this API to build a set of terms where today's date is between the start and end dates for the term, beginning with the minimum term where that is true. For example, if today is November 15:

- Term 201410 has a start date of 15-AUG-2013 and an end date of 15-DEC-2013.
- Term 201412 has a start date of 01-NOV-2013 and an end date of 15-JAN-2014.
- If today's date is 01-DEC-2013, the data will be built starting with term 201410.

The view finds the student's current and active curricula beginning with term 201410.

The view can also find the minimum student effective term (SGBSTDN) that includes the term selected. For example, when a student has these effective terms:

- 200910 - 201110
- 201110 - 999999

The effective term selected for the student is 201110 - 999999.

The view can retrieve the following data from the selected student effective term record:

- the graduation term associated with the student effective term
- the curriculum sequence number associated with the curriculum used to retrieve the SORLCUR record(s)

If the student has more than one curriculum record, all curriculum records will be returned, but any curriculum where the degree has been awarded will not be returned to the list on the transcript vendor ordering page.

The graduation term from the selected student effective term record is used to find the hold for degree rule for the term and to obtain the planned release date from SHRTETC. If no rule can be found for the term, the corresponding STVTERM end date is used. The XML response is returned with the *AD* order status and the planned release date. This date is used by the Ellucian Cloud to determine when the order will be checked to see if it can be fulfilled.

Place Transcript Order API

POST `/api/transcript-orders`

This API is used to accept the transcript order for a student with a PESC transcript request (XML) from the Ellucian Cloud.

Update Order Cloud Status API

GET /api/transcript-orders/{order-ID}

This API is used to check the current status of a particular transcript order. It accepts input of the order ID.

System Details API

GET /api/system-details/status

This API is used to check system availability, i.e., whether the Banner Student 8.6.2 release is installed. If it is installed, the API returns a value of *True* to the Ellucian Cloud. Otherwise, a value of *False* will be returned. It allows orders to be held until the system is next available.

New scripts

The following scripts are delivered with this enhancement.

 **Note**

Unless otherwise noted, new scripts are run as part of the upgrade process for a release. ■

Script	Result
shbteot_080602_01.sql	Creates table
shbteot_080602_02.sql	Adds Primary Key
shbteot_080602_03.sql	Adds column comments
shbtetc_080602_01.sql	Creates table
shbtetc_080602_02.sql	Adds Foreign Key
shbtetc_080602_03.sql	Adds Foreign Key
shbtetc_080602_04.sql	Adds column comments
shrorre_080602_01.sql	Creates table
shrorre_080602_02.sql	Adds Primary Key
shrorre_080602_03.sql	Adds column comments
shrpdft_080602_01.sql	Creates table
shrpdft_080602_02.sql	Adds Primary Key
shrpdft_080602_03.sql	Adds Foreign Key
shrpdft_080602_04.sql	Adds Foreign Key
shrpdft_080602_05.sql	Adds column comments
shrsftp_080602_01.sql	Creates table
shrsftp_080602_02.sql	Adds Primary Key

Script	Result
shrsftp_080602_03.sql	Adds Foreign Key
shrsftp_080602_04.sql	Adds Oracle sequence for surrogate ID
shrsftp_080602_05.sql	Adds column comments
shrtdel_080602_01.sql	Creates table
shrtdel_080602_02.sql	Adds Primary Key
shrtdel_080602_03.sql	Adds Foreign Key
shrtdel_080602_04.sql	Adds column comments
shrtedi_080602_01.sql	Creates table
shrtedi_080602_02.sql	Adds Primary Key
shrtedi_080602_03.sql	Adds column comments
shrtedi_080602_04.sql	Adds Oracle sequence for surrogate ID
shrtedi_080602_05.sql	Adds non-Unique Index
shrtehp_080602_01.sql	Creates table
shrtehp_080602_02.sql	Adds Primary Key
shrtehp_080602_03.sql	Adds column comments
shrtehp_080602_04.sql	Adds Oracle sequence for surrogate ID
shrtehp_080602_05.sql	Adds non-Unique Index
shrteod_080602_01.sql	Creates table
shrteod_080602_02.sql	Adds Primary Key
shrteod_080602_03.sql	Adds Foreign Key
shrteod_080602_04.sql	Adds column comments
shrteos_080602_01.sql	Creates table
shrteos_080602_02.sql	Adds Primary Key
shrteos_080602_03.sql	Adds Foreign Key
shrteos_080602_04.sql	Adds Oracle sequence for surrogate ID
shrteos_080602_05.sql	Adds Non-Unique Index
shrteos_080602_06.sql	Adds Non-Unique Index
shrteos_080602_07.sql	Adds column comments
shrteos_080602_08.sql	Adds column
shrteos_080602_09.sql	Adds column comment
shrthld_080602_01.sql	Creates table
shrthld_080602_02.sql	Adds Primary Key
shrthld_080602_03.sql	Adds Unique Key
shrthld_080602_04.sql	Adds Unique Key
shrthld_080602_05.sql	Adds Foreign Key
shrthld_080602_06.sql	Adds Foreign Key
shrthld_080602_07.sql	Adds column comments
shrtlvl_080602_01.sql	Creates table
shrtlvl_080602_02.sql	Adds Primary Key
shrtlvl_080602_03.sql	Adds column comments

Script	Result
shrtlvl_080602_04.sql	Adds Foreign Key
shrttyp_080602_01.sql	Creates table
shrttyp_080602_02.sql	Adds Primary Key
shrttyp_080602_03.sql	Adds Foreign Key
shrttyp_080602_04.sql	Adds Foreign Key
shrttyp_080602_05.sql	Adds Foreign Key
shrttyp_080602_06.sql	Adds column comments
shtrtran_080602_01.sql	Adds column
shtrtran_080602_02.sql	Updates column comment
shrtxhl_080602_01.sql	Creates table
shrtxhl_080602_02.sql	Adds Primary Key
shrtxhl_080602_03.sql	Adds Foreign Key
shrtxhl_080602_04.sql	Adds Oracle sequence for surrogate ID
shrtxhl_080602_05.sql	Adds column comments
shrtxhl_080602_06.sql	Adds Foreign Key
stvetme_080602_01.sql	Creates table
stvetme_080602_02.sql	Adds Primary Key
stvetme_080602_03.sql	Adds column comments
stvetpu_080602_01.sql	Creates table
stvetpu_080602_02.sql	Adds Primary Key
stvetpu_080602_03.sql	Adds column comments
stvetst_080602_01.sql	Creates table
stvetst_080602_02.sql	Adds Primary Key
stvetst_080602_03.sql	Adds column comments
stvettp_080602_01.sql	Creates table
stvettp_080602_02.sql	Adds Primary Key
stvettp_080602_03.sql	Adds column comments
stvetmei_080602.sql	Inserts seed data for STVETME
stvetpui_080602.sql	Inserts seed data for STVETPU
stvettpi_080602.sql	Inserts seed data for STVETTP
stvetsti_080602.sql	Inserts seed data for STVETST

Seed Data

The following seed data is delivered for this enhancement.

eTranscript Delivery Method Validation Table (STVETME)

Seed data is delivered for transcript delivery methods.

Code	Description
ELECTRN	Electronic
EXPCANMEX	ExpressCanadaMexico
EXPINTL	ExpressInternational
EXPRESS	Express
EXPRESSUS	ExpressUnitedStates
FAX	FAX
FAXEXP	FAXExpress
FAXMAIL	FAXMail
FAXOVERNT	FAXOvernight
HOLDFPICK	Hold for PickUp
MAIL	Mail
OVERNIGHT	Overnight

eTranscript PESC Transcript Purpose Validation Table (STVETPU)

Seed data is delivered for transcript purpose codes.

Code	Description
ADM	Admission
ADMREG	AdmissionRegistrar
ADMSEV	AdmissionService
CERTLIC	CertificationLicensure
EMPLOY	Employment

Code	Description
GRADADM	GraduateAdmissions
LAWSCHADM	LawSchoolAdmissions
MEDSCHADM	MedicalSchoolAdmissions
OTHER	Other
REG	Registrar
SCHOGRFELL	ScholarshipGrantFellowship
SCHOLAR	Scholarship
SELF	Self
SELFMPACK	SelfManagedPackage
TRANSFER	Transfer
UNDERGADM	UndergraduateAdmissions

eTranscript Order Status Validation Table (STVETST)

Seed data is delivered for transcript order status codes.

Note

Codes for *EX*, *GC*, *GF*, and *TC* are used internally by Banner. These codes are never sent to the Ellucian Cloud or the third party transcript vendor. ■

Code	Description	Translation	Send to Vendor	Send to Cloud
OR	Order Received	TranscriptRequestReceived	Y	Y
NR	Needs Research		N	Y
NF	Student Not Found	NoRecord	Y	Y
AR	Attachment Needs Review		N	Y
HR	Hold for Restrictions	Hold	Y	Y
AG	Awaiting Grades		N	Y
AD	Awaiting Degree		N	Y

Code	Description	Translation	Send to Vendor	Send to Cloud
RG	Ready to Generate		N	Y
GC	Generation Complete		N	N
TF	Transmission Failed		N	Y
TC	Transmission Complete		N	N
FF	Order Fulfilled	TranscriptSent	Y	Y
FO	Offline Record Sent	OfflineRecordSent	Y	Y
CA	Order Canceled	Canceled	Y	Y
EX	Order Expired		N	N
GF	Generation Failed		N	N

eTranscript PESC Transcript Type Validation Table (STVETTP)

Seed data is delivered for PESC transcript type codes.

Code	Description
COMPLETE	Complete
DENTAL	Dental
GRADUATE	Graduate
HEALTH	Health
LAW	Law
MANAGEMENT	Management
MEDICAL	Medical
PHARMACY	Pharmacy
UNDERGRAD	Undergraduate

4 Miscellaneous Enhancements

Additional updates are delivered with this release due to change request resolutions.

Changed forms

The following forms have been modified for change request resolutions.

Online Transcripts Activity List Form (SHAEDIS)

This form has been modified for the resolutions to change requests 1-ESFE2G, 1-CTHN16, and 1-46OY3C.

The Key Block of SHAEDIS has been designed based on user feedback in change request 1-ESFE2G, formerly RPE 1-BA31S0.

- Fields for **ID**, **Name**, **From Date**, **To Date**, and **Institution** have been added to the Key Block to enhance query ability on student, date, and school.
- If no Key Block fields are populated, you can use Next Block to query on all records.
- The ability to perform an extended search on the ID and name has been added using Tab from the **Name** field to open the ID and Name Extended Search window.

The *None* option has been removed from the **Pending or Complete** radio group. The *All* option has been added. The *Pending* option is the default value. Queries can be performed on *Pending*, *Complete*, or *All*. (1-CTHN16)

You can use the Associate Person with an ID window to select an ID type of *Generate ID* or *SSN* to pass an ID to GOAMTCH. Previously, you could pass a generated ID. (1-46OY3C)

Improved Key Block

Here are the fields in the redesigned Key Block.

Fields	Descriptions
Status	Transcript status code. List EDI Transcript Status Code Validation (STVDSTS)
Pending or Complete	Radio group used to select transcript records for the query. Values are: <i>Pending, Complete, All</i> . The default is <i>Pending</i> .
ID	Student ID for whom you wish to view transcript activity. List Person Search Form (SOAIDEN)
Name (untitled)	Student name. Use the extended search to search on person or non-person detail, as well as specific query options such as city, state or province, ZIP or postal code, name type, SSN/SIN/TIN, birth date, or gender. Tab ID and Name Extended Search window
From Date	Transcript received from date.
To Date	Transcript received to date.
Institution	Transfer institution code. List Source Background Institution (STVSBGI)

Associate Person with an ID Window

Use this window to select the ID type for use on GOATMCH. Select a record from the Data block and choose Verify ID from the Options Menu to display this window. This allows you to use a generated ID or an SSN for matching on GOAMTCH.

Fields	Descriptions
Select an ID	Radio group used to select the ID type to be used for matching. The ID for the type selected is displayed. Values are <i>SSN</i> or <i>Generate ID</i> .
First Name	First name in the transcript record.
Middle Name	Middle name in the transcript record.
Last Name Prefix	Last name prefix for the name in the transcript record.

Fields	Descriptions
Last Name	Last name in the transcript record.
Username	Username of person processing the ID.
Origin	Origin (block name) of record being processed.
Associate Person with an ID	Button used to save the ID type and pass it to GOAMTCH for matching. The Save function can also be used.

Transcript Request Form (SHARQTC)

This form has been modified for the resolution to change request 1-3G4KEU.

The list of valid values for the **In-Progress Cutoff Term** field now displays only terms with in-progress courses, based on the course level (the SFRSTCR term). The default value is the highest term from the available terms in the list.

Transfer Course Articulation Form (SHATATR)

This form has been modified for the resolution to change request 1-6NFUDB.

The values for the **Equivalent Exists** field have been updated. Choices now are *Yes* (the course has equivalents), *No* (the course does not have equivalents), and *Not Reviewed* (the course has not yet been reviewed). *None* and “*Blank*” have been removed. When you save a record as *Yes*, you cannot change it to *No* without entering an equivalent, saving the change, and then deleting the equivalent.

Changed process

The following process has been modified for a change request resolution.

PESC/XML Transcript Export Process (SHRPESE)

This process has been modified for the resolution to change request 1-GBVC6N.

The `shrpese.jar` file has been modified to display the correct send status for an electronic transcript. The `SHREPTD_DOC_ID_RESP_STATUS` field on the PESC/XML Document Status Form (SHIEPTD) is now set to *E* (Error) when SHRPESE fails with an error. The **Send Date** is set to Null. The `SHREPTD_DOC_ID_RESP_STATUS` field is now set to *G* (Generated) when SHRPESE generates XML successfully. (1-8EKP5T)

The `shkb_xml_course_ex1.sql` file has been modified to consider continuing education courses with course level. When the **CEU Indicator** is set to *Y* for level, the value of *CE* is used for the `<CourseCreditBasis>`. When the **CEU Indicator** is set to *N* for level, the value of *REGULAR* is used for the `<CourseCreditBasis>`.

5 Resolutions

The *Banner Student Resolutions Report 8.6.2* is a companion to this release guide. The Resolutions Report provides summary information about the change requests that are resolved in *Banner Student 8.6.2*. Use the following steps to access the Resolutions Report on the Ellucian Support Center:

1. Go to <https://ellucian.force.com/clients/home/home.jsp>.
2. Sign in to the Ellucian Support Center.
3. Select the Documentation Libraries tab.
4. Search for *Banner Student Resolutions Report 8.6.2*.

