

Banner Student Self-Service Release Guide

*Release 8.3
December 2009*

A horizontal banner at the bottom of the page. On the left is a black and white photograph of a student's hands writing in a notebook. To the right of the photo is a black rectangular area containing the word "SUNGARD" in white, bold, uppercase letters. Further right is a blue rectangular area containing the words "HIGHER EDUCATION" in white, uppercase letters. The banner ends with a grey rectangular area.

SUNGARD HIGHER EDUCATION

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Introduction

This release guide documents Release 8.3 of the Banner® Student Self-Service System. Release 8.3 includes one enhancement.

Enhancement for 8.3

This document describes the following enhancement, which is new for Release 8.3.

Payment Processor Connection

The Payment Processor Connection is a new solution for entering payment card information for Banner Self-Service applications.

Cumulative Documentation

This document provides detailed information about the Banner Student Self-Service 8.3 release only. Banner Student Self-Service 8.3 is a cumulative release that also includes problem resolutions delivered in the Student Self-Service 8.2.1 release. For complete documentation about this interim release, please refer to the readme file identified in the table that follows.

Release Number	Contents	Release Date
8.2.1	Problem Resolutions	September 2009



1 Payment Processor Connection Enhancement - Functional



Overview

The Payment Processor Connection is a new solution for entering payment card information for Banner Self-Service applications.

This document describes the changes in Banner Student Self-Service that support this new solution. For more information about setting up and using this new solution, refer to the following documents:

- *Banner Student 8.3 Release Guide*
- *Banner General 8.3 Release Guide* *
- *Banner Web General 8.3 Readme file*
- *Banner Web Tailor 8.3 Readme file*
- *Banner General Web Services Handbook*
- *Banner Payment Processor Connection Handbook*

* Setup information can be found in the *Banner General 8.3 Release Guide*.

Background

The Payment Card Industry (PCI) Security Standards Council is a forum that develops, enhances, stores, disseminates, and implements security standards for payment card transactions on a global basis. There are two types of security standards:

- The Payment Card Industry Data Security Standard (PCI-DSS) helps organizations proactively protect customer account data.
- The Payment Application Data Security Standard (PA-DSS) helps software vendors develop secure payment applications that comply with the PCI-DSS. The

PA-DSS applies to payment applications that are sold, distributed, or licensed to third parties.

 **Note**

A payment application is a software application that stores, transmits, or processes cardholder data as part of the authorization or settlement of a payment card transaction. ■

SunGard Higher Education does not market or intend for its Banner applications to be payment applications. However, the functionality for entering payment card information in Banner Self-Service and the use of the Java Payment Client (JPC) suggest that Banner would likely be deemed a payment application based on recent changes to the PCI-DSS and the PA-DSS.

For this reason, SunGard Higher Education is replacing the JPC and the ability to enter payment card information in all Banner Self-Service applications. The new solution integrates to payment processing vendors. Your institution can now consolidate the processing of payment card information and regulatory compliance to a single, PCI-DSS compliant application or service provided by the payment processing vendor with whom you already have a relationship.

These changes apply to all institutions that currently use Banner Self-Service and the JPC to enter payment card information. Failure to install this patch can jeopardize your compliance with PCI-DSS. If you previously modified your payment process to redirect access to an alternate payment site, you should review your policies and the changes in this patch to determine the best course of action.

Processing Flow

Previously, payment card processing was split between Banner and the payment processing vendor. A user performed a task (such as pay tuition or make a donation) on a Banner Self-Service page. Banner collected and stored payment card details, then sent a message via a secure link (via the Java Payment Client) to the payment processing vendor. The payment processing vendor processed the information and returned a response to Banner, acknowledging success or failure of the payment.

In the new solution, a user initiates the same task (such as pay tuition or make a donation) on a Banner Self-Service page. However, instead of entering the payment card details in Banner, the user is redirected to the payment processing vendor. This is where the payment card details are captured and validated. The result is transmitted to Banner where a Web service is called to process and store the payment transaction. Then the user is returned to the appropriate location in Banner Self-Service.

Student-Specific Processing Updates

This enhancement allows institutions to process transactions using payment cards with the new Payment Processor Connection functionality. This replaces the Java payment processing that was used previously. That payment gateway is no longer supported.

Payment card information is no longer stored in Banner for Self-Service transactions. Admissions application fees, registration fee assessment fees, enrollment verification fees, transcript request fees, and graduation application fees, and are now processed by external payment vendors. Web technologies (URL redirects and Web services) are used to connect Banner to the external payment vendors for payment processing and transaction confirmation. When transactions are processed successfully, the updates can be checked in Banner Accounts Receivable.

Admissions application fees are paid on an external vendor payment page when a payment card is used. The applicant can resubmit an application request as needed.

When Quick Start processing is used, the student is admitted, a student record is created, and the student can register for classes, after the payment card payment has been successfully processed. If the payment card payment is not successful, the student record is not created, and registration cannot take place.

When a full waiver is allowed, the student will not be taken to the vendor payment page. If no waiver is in place or if a partial waiver is in place, the student will be taken to the vendor page for payment.

Registration fees (calculated by fee assessment), enrollment verification request fees, transcript request fees, and graduation application fees are also processed on a vendor payment page when a payment card is used. These types of requests can be resubmitted as needed.

The student will see whether the transaction is processed successfully with confirmation or unsuccessfully with an error message. For a successful transaction, the student can be presented with a Signature page or an acknowledgement letter, depending on how the institution has set up the Self-Service options. The student can then use the browser to print the Signature page or the acknowledgement letter. This assists in verifying that the admissions or graduation application was submitted, the transcript or enrollment verification ordered, and the associated fees paid. Once the transaction has been processed, confirmation of payment can be viewed in Accounts Receivable as a credit on the student's account (TSAAREV) or as a miscellaneous fee payment (TFAMISC).

When the payment card payment request is approved, a detail transaction is written to the Account Charge Payment Detail Table (TBRACCD). The values in the following table are *no longer* stored in Banner when the account detail record is written to the TBRACCD table.

Item Name	Description
TBRACCD_PAYMENT_ID	Credit card number
TBRACCD_CARD_TYPE_VR	Credit card type
TBRACCD_CARD_EXP_DATE_VR	Credit card expiration date
TBRACCD_CARD_AUTH_NUMBER_VR	Authorization code

Changed Web Pages - Admissions

The following Web pages have been modified for this enhancement.

Application Checklist (bwskaLog.P_DisplIndex)

The **Application Complete** button now displays the Application Fee Payment page (bwskaLog.P_ProcIndex) when payment card processing is enabled. Previously, the button displayed the Credit Card Payment page (bwckcpmt.P_CreditCardPayment).

When payment card processing is not enabled, the Signature page (bwskaLog.P_ProcIndex) is displayed.

Application Fee Payment (bwskaLog.P_ProcIndex)

The **Submit Payment** button now displays the external vendor payment page for payment by payment card. Previously, the button displayed the Verify Information page (bwskapmt.P_CCPaymentVerification).

New Web Page - Registration/Student Accounts

The following Web page has been added for this enhancement.

Tuition and Fees Payment (bwckcpmt.P_CCPaymentTermSelected)

This page allows a student to make a payment card payment via Student Self-Service. It cannot be accessed from a menu. It can only be accessed from pages where Self-Service has been set up to accept payment card payments for registration fees and student accounts. The transaction is then submitted to an external vendor for payment and payment card processing through the Web Services payment processor connection.

If an approval is received for the transaction, an account detail (TBRACCD) record is written for the student, and the transaction is recorded as part of an open cashiering session for the user ID of the Web session. Settlement with external payment vendors is accomplished using the Web Services payment processor connection. Your institution closes and balances cashiering session(s) that contain payment card payments using normal institutional procedures. Payment card transactions are authorized, settled, and inserted into Banner.

The payment card payment information is transmitted to the selected external payment vendor, and the user receives either an approval or denial message for the transaction. If a denial is received, a denial message is returned to the student. If an approval is received, an approval message is returned and a payment transaction is written to the student's account. Denial and approval messages are maintained by the payment vendor.

Web Page Fields

Item	Description/Source Information
Payment Amount	Amount being paid by payment card.

Setup Requirements

Item	Description
Credit Card Merchant ID Form (GOAMERC)	<p>Define the payment card types that you want to be displayed on the Web. The system code, the process code, and the merchant ID determine the payment card types that will be displayed to the user.</p> <p>All other payment card processing set up must be completed as well. See the <i>Payment Processor Connection Handbook</i> for more information.</p>
Process Name Validation Form (GTVPROC)	Check that appropriate process name codes and external merchant ID numbers have been set up on GTVPROC.

Updates to Banner

Item	Description
Payment Detail	If the payment card payment request is approved, a detail transaction is written to the Account Charge Payment Detail Table (TBRACCD).

The values in the following table will be used when the account detail record is written.

Item Name	Description
TBRACCD_PIDM	PIDM from Web session
TBRACCD_TRAN_NUMBER	Generate oneup number from PIDM's account
TBRACCD_TERM_CODE	Default Term Code for Detail Code (TBBDETC_TERM_CODE) to be used when no term has been selected
TBRACCD_DETAIL_CODE	Detail Code for credit card type from TTVCCRD
TBRACCD_USER	Web UserID
TBRACCD_ENTRY_DATE	Sysdate
TBRACCD_AMOUNT	Payment amount requested
TBRACCD_BALANCE	Because this is a payment, negative value of amount
TBRACCD_EFFECTIVE_DATE	Sysdate
TBRACCD_BILL_DATE	Null
TBRACCD_DUE_DATE	Null
TBRACCD_DESC	Detail code description from TBBDETC
TBRACCD_RECEIPT_NUMBER	Receipt number
TBRACCD_TRAN_NUMBER_PAID	Null
TBRACCD_CROSSREF_PIDM	Null
TBRACCD_CROSSREF_NUMBER	Null
TBRACCD_CROSSREF_DETAIL_CODE	Null
TBRACCD_SRCE_CODE	Source Code from GTVSDAX
TBRACCD_ACCT_FEED_IND	Y
TBRACCD_ACTIVITY_DATE	Sysdate
TBRACCD_SESSION_NUMBER	Zero (This emulates an open session.)
TBRACCD_CSHR_END_DATE	Null (This emulates an open session.)
TBRACCD_CRN	Null
TBRACCD_CROSSREF_SRCE_CODE	Null
TBRACCD_LOC_MDT	Null
TBRACCD_LOC_MDT_SEQ	Null
TBRACCD_RATE	Null
TBRACCD_UNITS	Null
TBRACCD_DOCUMENT_NUMBER	Null
TBRACCD_TRANS_DATE	Sysdate
TBRACCD_INVOICE_NUMBER	Null
TBRACCD_STATEMENT_DATE	Null
TBRACCD_INV_NUMBER_PAID	Null
TBRACCD_CURR_CODE	Null
TBRACCD_EXCHANGE_DIFF	Null
TBRACCD_FOREIGN_AMOUNT	Null
TBRACCD_LATE_DCAT_CODE	Null
TBRACCD_FEED_DATE	Null

Item Name	Description
TBRACCD_FEED_DOC_CODE	Null
TBRACCD_ATYP_CODE	Null
TBRACCD_ATYP_SEQNO	Null
TBRACCD_CROSSREF_DCAT_CODE	Null
TBRACCD_ORIG_CHG_IND	Null

Buttons/Icons on This Page

Button/Icon	Action
Submit	Goes to the external vendor payment page.

Web Menus With Links to This Page

No menus have links to this page.

Changed Web Pages - Registration

The following Web pages have been modified for this enhancement.

Registration Term (bwskf1ib.P_SelDefTerm)

When a term code has not yet been selected during processing, the Credit Card Payment link on some Student Accounts pages goes to the Registration Term page (bwskf1ib.P_SelDefTerm) for term selection. When a term code has been selected, processing can continue.

The Student Accounts pages are:

- Account Summary (bwskoacc.P_ViewAcctTotal)
- Account Summary By Term (bwskoacc.P_ViewAcct)

Now the **Submit** button on the Registration Term page goes to the Tuition and Fees Payment page (bwckcpmt.P_CCPaymentTermSelected) when payment is by payment card. Previously, the button displayed the Credit Card Payment page (bwckcpmt.P_CCPaymentTermSelected).

Registration Fee Assessment (bwskf fee.P_FeeAsses)

The **Credit Card Payment** link on this page now displays the Tuition and Fees Payment page (bwskc pmt.P_CCPaymentTermSelected). Previously, the link displayed the Credit Card Payment page (bwskc pmt.P_CCPaymentTermSelected).

You can use the **Submit** button on the Tuition and Fees Payment page (bwskc pmt.P_CCPaymentTermSelected) to access the external vendor payment page for payment by payment card.

Changed Web Pages - Student Records

The following Web pages have been modified for this enhancement. Student records information includes enrollment verifications, transcript requests, and graduation applications.

Payment Options (bwskwtrr.P_Disp_Trans_Request_Charges)

The **Continue** button on this page now displays the Transcript Request Summary page (bwskwtrr.P_Disp_Payment_Type) when payment is by payment card. Previously, the button displayed the Credit Card Payment page (bwskwtrr.P_Disp_Payment_Type).

You can use the **Submit Request** button on the Transcript Request Summary page to access the external vendor payment page for payment by payment card.

Transcript Request Summary page (bwskwtrr.P_Disp_Payment_Type)

The **Submit Request** button now displays the external vendor payment page when payment is by payment card. Previously, the button displayed the Credit Card Payment page (bwskwccp.p_credit_card_payment).

Enrollment Verification Request Summary (bwskrqst.p_proc_confirm)

The **Submit Request** button now displays the external vendor payment page when payment is by payment card. Previously, the button displayed the Credit Card Payment page (bwskwccp.p_credit_card_payment).

Graduation Application Summary (bwskggrad.p_disp_confirm)

The **Submit Request** button now displays the external vendor payment page when payment is by payment card. Previously, the button displayed the Credit Card Payment page (bwskwccp.p_credit_card_payment).

Changed Web Pages - Student Accounts

The following Web pages have been modified for this enhancement. Student accounts information includes billing, statement, and account history.

Account Summary (bwskoacc.P_ViewAcctTotal)

When a term code has not yet been selected and this page is accessed, the Credit Card Payment link goes to the Registration Term page (bwskf1ib.P_SelDefTerm) for term selection. When a term code has been selected, processing can continue.

Now the **Submit** button on the Registration Term page goes to the Tuition and Fees Payment page (bwckcpmt.P_CCPaymentTermSelected). Previously, the button displayed the Credit Card Payment page (bwckcpmt.P_CreditCardPayment).

You can use the **Submit** button on the Tuition and Fees Payment page to access the external vendor payment page for payment by payment card.

Account Summary By Term (bwskoacc.P_ViewAcct)

When a term code has not yet been selected and this page is accessed, the Credit Card Payment link goes to the Registration Term page (bwskf1ib.P_SelDefTerm) for term selection. When a term code has been selected, processing can continue.

Now the **Submit** button on the Registration Term page goes to the Tuition and Fees Payment page (bwckcpmt.P_CCPaymentTermSelected). Previously, the button displayed the Credit Card Payment page (bwckcpmt.P_CreditCardPayment).

You can use the **Submit** button on the Tuition and Fees Payment page to access the external vendor payment page for payment by payment card.

Account Detail for Term (bwskoacc.P_ViewAcctTerm)

The **Pay Now** button goes to the Tuition and Fees Payment page (bwckcpmt.P_CCPaymentTermSelected). Previously, the button displayed the Credit Card Payment page (bwckcpmt.P_CreditCardPayment).

You can use the **Submit** button on the Tuition and Fees Payment page to access the external vendor payment page for payment by payment card.

Statement and Payment History (bwskspms.P_ViewStatement)

The Credit Card Payment link on this page now displays the Tuition and Fees Payment page (bwckcpmt.P_CCPaymentTermSelected). Previously, the link displayed the Credit Card Payment page (bwckcpmt.P_CreditCardPayment).

You can use the **Submit** button on the Tuition and Fees Payment page (bwckcpmt.P_CCPaymentTermSelected) to access the external vendor payment page for payment by payment card.

Obsolete Web Pages - Admissions

The following Web pages are obsolete with this enhancement. The external vendor payment page is now used in place of the obsolete pages.

Credit Card Payment (bwckcpmt.P_CreditCardPayment)

This page is no longer used for admissions application fee payment.

Verify Payment Information (bwskapmt.P_CCPaymentVerification)

This page is no longer used for admissions application fee payment.

Payment Status (bwskapmt.P_CCPaymentStatus)

This page is no longer used for admissions application fee payment.

Obsolete Web Page - Registration

The following Web page is obsolete with this enhancement. The external vendor payment page is now used in place of the obsolete page.

Credit Card Payment (bwckcpmt.P_CCPaymentTermSelected)

This page is no longer used for registration fee payment.

Obsolete Web Pages - Student Records

The following Web pages are obsolete with this enhancement. Student records information includes enrollment verifications, transcript requests, and graduation applications. The external vendor payment page is now used in place of the obsolete pages.

Credit Card Payment Information (bwskwtrr.P_Dispatch_Payment_Type)

This page is no longer used for transcript request or graduation application fee payment.

Credit Card Payment (bwskwccp.p_credit_card_payment)

This page is no longer used for transcript request or graduation application fee payment.

Payment Validation (bwskwccp.p_cc_payment_validation)

This page is no longer used for transcript request or graduation application fee payment.

Payment Submitted (bwskwccp.p_cc_payment_submitted)

This page is no longer used for transcript request or graduation application fee payment.

Payment Status (bwskwccp.p_cc_payment_status)

This page is no longer used for transcript request or graduation application fee payment.

Obsolete Web Pages - Student Accounts

The following Web pages are obsolete with this enhancement. Student accounts information includes billing, statement, and account history. The external vendor payment page is now used in place of the obsolete pages.

Credit Card Payment (bwckcpmt.P_CreditCardPayment)

This page is no longer used for student account processing.

Credit Card Payment Verification (bwckcpmt.P_CCPaymentVerification)

This page is no longer used for student account processing.

Credit Card Payment Submitted (bwckcpmt.P_CCPaymentSubmitted)

This page is no longer used for student account processing.

Credit Card Payment Status (bwckcpmt.P_CCPaymentStatus)

This page is no longer used for student account processing.

2 Payment Processor Connection Enhancement - Technical



Changed Packages

The following packages have been modified for this enhancement. They call the new Banner General `gokpven.f_collect_payment_info` function, which in turn calls the Web Service.

- BWSCBREF
- BWSCBRE1
- BWSKALOG
- BWSKALO1
- BWSKAPMT
- BWSKAPM1
- BWSKGRAD
- BWSKGRA1
- BWSKOACC
- BWSKOAC1
- BWSKRQST
- BWSKRQS1
- BWSKWCCP
- BWSKWCC1
- BWSKWTRR
- BWSKWTR1
- BWCKCPMT
- BWCKCPM1



3 Problem Resolutions



The following problem resolutions are delivered with this release.

Due to the small number of problem resolutions for this release, each is summarized below, and the supplemental problem resolutions file .txt file is not delivered.

Object	Number	Summary
Documentation - Diploma Name Selection - Name Change page (bwskggrad.p_proc_ diploma_name)	#1-7RJSVU	In the 8.0 Student Self-Service release notes for Graduation Application on page 30, which discusses the Diploma Name Change page, for the "Updates to Banner" section, the text does not indicate that it updates the student's diploma name. It indicates that it updates the Attend Ceremony radio button. The text here is identical to the text on page 25 regarding the Graduation Ceremony Selection page. The Diploma Name Change updates information on SHAGAPP.
BWCKCMP1, SOKCCUR1, BWCKCAP1, SMARQCM	#1-6ZTGLN	When users tried to run a degree evaluation in Self-Service, the message <i>No current curriculum information found</i> was displayed when the optional <code>susoplccd_*.sql</code> scripts delivered with Student 8.1 had not been run, and the Secondary Curriculum checkbox checked on SMAWCRL.
BWCKSXML	#1-7QLT3R	The Degree Evaluation Web page (bwcksxml.report) no longer displayed the <i>DEFAULT</i> information text defined in Web Tailor. Prior to using XML for the degree evaluation, the Web page was able to display information text.
BWSKWTRR	#1-4UJHSE	If more than 30 characters were submitted in Street Line 1 using the online transcript request, the rest of the characters were appended to the end of the Street Line 2 on SHARQTC.

