



College Scheduler Banner XE Supplement Installation Guide v9.0

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Summary

[College Scheduler](#) offers a web based class scheduling system for student use at colleges and universities. Students can build optimized class schedules that take into account their personal needs (like work, athletics, or leisure). The great part is that students gain access to Our System directly from a menu item that is integrated into your existing registration and scheduling environment.

The Schedule Planner Banner XE Supplement provides a JDBC data service and related tools for integration with the College Scheduler Java Bridge and supplements the capabilities of the basic Schedule Planner Interface.

Sign On – This component facilitates the transfer of the student ID and current schedule to College Scheduler through the College Scheduler Java Bridge.

This guide covers the **preparation** and **installation** of the interface.

We recommend as few modifications to this software as possible to maintain compatibility with future upgrades of the Schedule Planner interface. If you're interested in adjustments to this interface or the Schedule Planner itself, don't hesitate to contact College Scheduler Support at support@collegescheduler.com.

This interface supplement utilizes baseline Banner Student software. If you've made significant modifications to Banner Student, adjustments to this interface may be required.

Preparation

Prior to installation, the basic Schedule Planner Enhanced Banner Interface must be installed and the database environment prepared. The interface supplement is designed to be installed to the custom CSCHED and CSCHED_SECURE schemas on the Oracle database server housing the Banner database.

Utilizing other schemas or changing the schema names is not recommended.

The Enhanced Banner Interface requires a minimum version of 8.0.3, and must be installed to the CSCHED schema. Upgrade to v8.0.3 or higher before installing the Schedule Planner XE Supplement.

The Oracle Database Server

- Create the Secure JDBC User – **CSCHED_SECURE**
 - a. A new schema, “CSCHED_SECURE”, must be created. Schema creation itself is not a component of the interface installation materials to respect institutional schema practices.
 - b. CSCHED_SECURE exists only to secure access via JDBC to software in the Schedule Planner schema, CSCHED. CSCHED_SECURE is accessed only by the College Scheduler Java Bridge from your local Application Server(s), and the database listener *does not* need to be opened to the public internet.
 - c. The CSCHED_SECURE username and password are required for setup of the College Scheduler Java Bridge *application.yml* configuration file.
- Execute the Grants Script *as SYSDBA - 00-csched-schema-grants-patch.sql*
 - a. The Grants Script prepares the CSCHED and CSCHED_SECURE schemas with the minimum system and object privileges required to support the interface.
 - b. The Grants Script is designed for typical Banner database installations. If system objects have been more rigorously secured, additional grants may be necessary.

Installation

As CSCHEM on the target Banner instance from SQL*Plus (or another appropriate tool) execute `patch-schedule-planner.sql`.

Review `patch-schedule-planner.log` for errors. Please note: Some installation steps include initial object DROP statements. These are expected to fail on first installation.

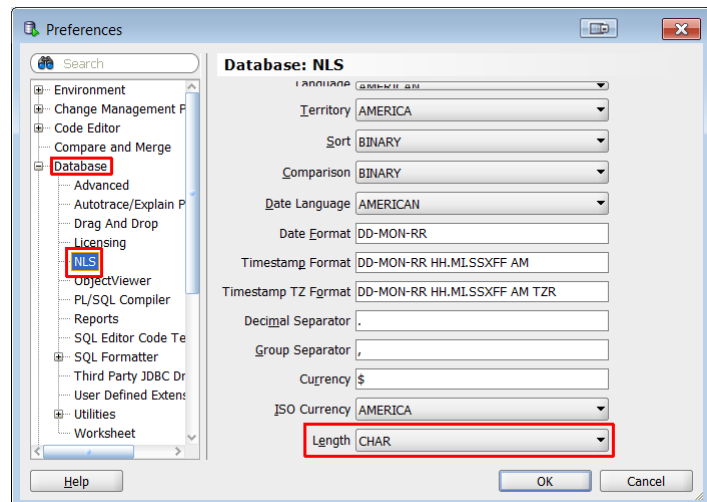
The end of the installation log includes an object summary. Review the objects for validity. If any objects were not created or are listed as "INVALID", review the section of the log identified by the object name.

If additional follow-up is required, please contact Support at support@collegescheduler.com.

NOTE: If you are using Oracle SQL Developer to perform any installation, upgrade, or maintenance of this interface, please verify the Length Semantic setting within SQL Developer *Preferences*.

This includes compiling any database object.

The Length Semantic setting, under *Preferences : Database : NLS : Length* must be set to **CHAR** (not BYTE).



Appendix A – Setup

The CSCHED_SETTINGS Table

The SETTINGS table includes institution or instance specific values, and can be edited by a technician via SQL. There is only one row. Settings in **grey** are not required for Banner XE integration, and can be ignored.

Column	Accepts	Defaults To
CSCHED_KEY	255 Characters	'*** UPDATE ME ***'
CSCHED_VALID_IP	4000 Characters, Null	'52.32.13.194,52.39.39.165,74.205.58.139' Or NULL (to disable simple IP validation)
SOAP_ACTION	255 Characters	'csched.p_services'
SECURE_TICKET_IND	'Y', 'N'	'Y'
WALLET_PATH	4000 Characters, Null	'*** UPDATE ME ***'
WALLET_PASS	255 Characters, Null	'*** UPDATE ME ***'
HTTP_PROXY	4000 Characters, Null	'*** UPDATE ME ***'
VERBOSE_ERROR_IND	'Y', 'N'	'Y'
DIAGNOSE_TICKET_IND	'Y', 'N'	'Y'
URL_LOGOUT	4000 Characters	'twbkwbis.P_GenMenu?name=bmenu.P_RegMnu'
TEXT_LOGOUT	255 Characters	'Return to Banner'
URL_CARTFAILED	4000 Characters	'bwskfreg.P_AltPin'
TEXT_CARTFAILED	255 Characters	'Return to Banner'
URL_RELOG	4000 Characters	'Not Implemented'
TEXT_RELOG	255 Characters	'Not Implemented'
ID_MODE_IND	'I', 'P', 'O'	'I'
ID_OBFUSCATION_KEY	256bit RAW	Random 256bit Key
NEGOTIATED_KEY	256bit RAW, Null	Null
ADD_TO_WORKSHEET_IND	'Y', 'N'	'Y'
ACTIVITY_DATE	Oracle DATE	System Date
SIGN_ON_FUNCTION	30 Characters	NULL
SCHEDULE_FORMAT	'1', '2', Null	'2'
OVERRIDE_IND	'Y', 'N', Null	'N'
CURRICULA_IND	'Y', 'N', Null	'N'
STUATTR_IND	'Y', 'N', Null	'N'
COHORT_IND	'Y', 'N', Null	'N'
SCHEDULE_FUNCTION	30 Characters	NULL
STATISTICS_OPT_IN	'Y', 'N', Null	'N'
HOLD_DETAIL_IND	'Y', 'N', Null	'N'

Appendix B - Data Summaries

Student Mode Authentication

Tag	Notes	Banner Reference
<SignOnPacket>		
<Version>	Interface Version	csched_signon.curr_release
<Instance>	Database Instance	sys_context ('USERENV', 'DB_NAME')
<Timestamp>	Transaction Timestamp	systimestamp
<StudentId>	Current ID	spriden_id
<PIDM>	PIDM	PIDM
<Terms>		
<Item>		
<TermCode>	Term Code	csched_terms.term_code
<Term>	Term Description	stvterm_desc
<StuStatus>	Registration Status Messages	sfrmreg.p_check_eligibility
<RegHold>	Registration Hold Status	gb_hold.f_hold_exists
<APINStatus>	Alternate PIN Status	srapin
<TicketStatus>	Time Ticket Status	sfkrctl.f_check_reg_appointment
<Registration>		
<CRN>	Registered CRN and Status	sfrstcr_crn, stvrsts_incl_sect_enrl, stvrsts_wait_ind
<StudentCart>		
<CRN>	Plan Ahead CRN	sfbplan, sfrplan
<Overrides>	(Optional, may be Disabled)	
<Section>	Registration Permits and Overrides	sfrsrpo, stvrovr, sfrrovr
<Curricula>	(Optional, may be Disabled)	
<Curriculum>	Student Curriculum	sorlcur, sorlfos
<StudentAttributes>	(Optional, may be Disabled)	
<StudentAttribute>	Student Attribute	sgrsatt, stvatts
<StudentCohorts>	(Optional, may be Disabled)	
<StudentCohort>	Student Cohort	sgrchrt, stvchrt
<SignOnFunction>	Dynamic Sign On Function	csched_settings.sign_on_function
<HoldDetails>	(Optional, may be Disabled)	
<Hold>	Student Hold	sprhold, stvhld