** SQLAlchemy 1.3 Migration Cookbook **

This guide is designed to help you smoothly upgrade your database applications to SQLAlchemy 1.3. It covers the most important changes and provides practical examples for each one. Whether you're just starting with SQLAlchemy 1.3 or looking for specific features, you'll find the information you need here.

### What's New in SQLAlchemy 1.3

- **Improved Backwards Compatibility**: SQLAlchemy 1.3 relies on Python 3.5 and later, ensuring compatibility with the latest Python features.
- **Performance Enhancements**: The Query API has been optimized to improve performance, especially with large datasets.
- **Enhanced Type Conversion**: New type converters handle more types and are more reliable.
- **SQL Fallback**: When expressions are too complex for the database, SQLAlchemy can fall back to native SQL commands.
- **Session Configuration**: Improved configuration options for sessions, making it easier to configure for different database setups.
- **Dialect Support**: More databases and dialects are supported, including PostgreSQL, MySQL, and SQLite.

### How to Use This Cookbook

Each chapter is dedicated to a specific feature or improvement introduced in SQLAlchemy 1.3. You'll find quick examples, detailed explanations, and tips on how to apply these changes in your own Python applications.

### Example Usage

```python
from sqlalchemy import create_engine, select
from sqlalchemy.ext.declarative import declarative_base
from sqlalchemy.orm import sessionmaker

# Database connection
engine = create_engine('sqlite:///example.db')
Base = declarative_base()

# Define your models here...

# Create the database session
Session = sessionmaker(bind=engine)
session = Session()

# Example: Querying data
query = session.query(Model).
result = query.filter_by(name='example').all()
```

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### Further Resources

- [SQLAlchemy 1.3 Documentation](https://www.sqlalchemy.org/docs/1_3_0/)
- [Official SQLAlchemy GitHub Repository](https://github.com/sqlalchemy/sqlalchemy)
- [Stack Overflow](https://stackoverflow.com/questions/ask)
- [ SQLAlchemy User Community](https://groups.google.com/g/sqlalchemy-users)

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**Please note**: This is a fictional example for demonstration purposes. Actual SQLAlchemy versions and features may differ.
Rackley wins his third Silver Omni music award

David Rackley, Mustang Marching Band director, composer and teacher, was recently awarded a Silver Omni — his third — for music he composed for the video documentary "The Midisignation of Death," which recently aired on The Learning Channel.

Entries were judged by a panel of experts from some of the world’s top production companies. "The Midisignation of Death" explores situations both real and mythical in which people previously dead have actually come back to life.

Rackley has earned a number of music awards, including six Tellys, a CINE Golden Eagle Award, the National Educa-

A business student places 2nd in investment contest

A team of undergraduate students from Cal Poly’s College of Business took second place in a recent national investment management competition.

Cal Poly’s Student-Managed Portfolio Program (SMPP) placed second in the RISE-8 refining Investment Strategy Education Symposium and Portfolio Competition at the University of Dayton, Ohio.

The competition involved 33 universities from across the nation with student-managed portfolio projects similar to Cal Poly’s.

The SMPP team, under the guidance of Finance Professor John Lindvall, manages about $500,000 of the Cal Poly Foundation’s endowment funds. From Dec. 1, 2000, through Nov. 30, 2001, the Cal Poly SMPP fund earned 0.1%, compared to a S&P 500 loss of 13.3 percent and a NASDAQ loss of 25.7 percent.

To make the finals, the students had to assemble a detailed report on the SMPP’s holdings, gains and losses over those 12 months. The competition offered three fund management categories: value, growth and income. Each of Cal Poly’s funds consisted in a field of 11 teams in the blend category and was among the top five chosen to go on for the finals.

The SMPP team placed second, behind Michigan Tech.

Peter Acker, a finance major, is business senior Ian Bronson, Nicole Colette, Matt Mahlman and Dan Pavlicko, financed by Professor Larry Gorman.

Business students get top honors in investment contest

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Ticket information

Tickets to the performances listed in today’s Cal Poly Report are available at the Performing Arts Office Ticket Office 10 a.m.-6 p.m. weekdays and 10 a.m.-4 p.m. Saturdays. Call ext. 6-2787 or fax your order to ext. 6-6088. Tickets can also be bought online via Tickets.com. Visit the Performing Arts Center’s Web site at pacolion.org and click on “Event Calendar.”

For information on all Cal Poly Arts events, including audio and video samples of artists’ work, can be found by visiting the Web at www.calpolyarts.org.

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Foundation board to meet

The Foundation Board of Directors will hold a regular meeting, March 15 is the Foundation Administration Building, Conference Room 124.

This is a public meeting.

For more information or to obtain a copy of the meeting agenda, call Foundation Executive Director Frank Munford at ext. 6-6131. A copy of the agenda packet will be available for review Monday, March 11 before the meeting at the Reserve Desk, Room 114, and at the Academic Senate office, Room 143, in the Mathmatics and Science Building.

Nominations sought for student ‘Quest’ award

The Student Life and Leadership office is seeking nominations for The Land Family Quest for the Best Award, which recognizes students who exemplify the core values of excellence, stewardship, collaboration, integrity and community.

The award is funded by business administration alumnus Jeff Land and his wife, Carla. The Land Family Award recognizes students who have achieved the highest level of excellence in their ability to balance academic pursuits with community service.

A monetary award will be given to one student from each college. “In addition, the student who most effectively demonstrates excellence in campus and community activities will be honored with the highest award — the equivalent of a year’s tuition,” said Pat Harris, assistant director of leadership education.

Faculty and staff members are invited to nominate students by writing a brief letter outlining the student’s achievements and qualifications and e-mailing it to Harris at pharris@calpoly.edu by March 11. Students in any college leadership programs are also invited to make nominations.

Student involvement can be in campus, religious or charitable organizations.

Those nominated will be asked to write an essay describing their leadership experiences and how it has shaped their future.

The Land Family Quest for the Best Award program.

For more information, contact Harris at ext. 6-5828 or by e-mail."

Leadership changes ...

Continued from page 1

enable Bill Pendergast to focus his work for the university on areas closely aligned with his own interests and institutional needs, and they will bring to the leadership of the Orfalea College of Business an individual with solid experience and credentials to move the college forward.

"I expect that the faculty, staff and students will provide Dr. Swartz with the support he needs and merits in order for the college to continue to stay at the forefront of undergraduate business colleges in the nation," Zingg said. "I also expect that Dr. Swartz and his new administration will continue to support and successfully work with faculty, administrators and external audiences to advance an important university initiative."
Nominations sought for student ‘Quest’ award

The Student Life and Leadership office is seeking nominations for The Land Family Quest for the Best Award, which recognizes student leaders who exemplify the core values of excellence, stewardship, collaboration, integrity and community.

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Student involvement can be in campus, religious or charitable organizations.

Those nominated will be asked to write an essay describing their leadership experiences and how they reflect the Student Life and Leadership mission. The Land Family Quest for the Best Award program.

For more information, contact Harris at ext. 6-2582 or by e-mail.

Leadership changes...

Continued from page 1

enable Bill Pendergast to focus his work for the university on areas aligned with his own interests and institutional needs, and they will bring to the leadership of the Orfalese College of Business an individual with solid experience and credentials to move the college forward.

"I expect that the faculty, staff and students will provide Dr. Swartz with the support she needs and merits in order for the college to continue its growth," said Will Bailey, Disability Resource Center, Room 114, and at the Academic Access Center, which conducts semi-annual reviews of academic and product evaluations.

"It’s important to note that ‘The Key’ continues to grow and expand. The new press provides the opportunity to teach on state-of-the-art technology used for short-run, high-quality color printing."

The press, valued at $262,000, will be used in the department’s academic program and by the Graphic Communication Institute, which conducts seminars and workshops for industry professionals, and performs research, testing and product evaluations.

University Graphic Systems will also use the new printing press.

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David Rackley, Mustang Marching Band director, composer and teacher, was recently awarded a Silver Omni—his third—for music he composed for the video documentary "The Midisagnosis of Death," which recently aired on The Learning Channel.

Entries were judged by a panel of experts from some of the world’s top production houses. "The Midisagnosis of Death" explores situations both real and mythic in which people have chosen death or have actually come back to life.

Rackley has earned a number of music awards, including six Tellys, a CINE Golden Eagle Award, the National Education Media Network’s Gold Apple Award, the International Association of Business Communicators’ Gold CINDY, and two Bronze Awards from the WorldFest International Film and Video Competition.

He is also on the music faculty at Cuesta College.

Business students place 2nd in investment contest

A team of undergraduate students from the Orfalese College of Business took second in a national investment management competition. Cal Poly’s Student-Managed Portfolio placed second in the RISE-Rebuilding Investment Strategy Education Symposium and Portfolio Competition at the University of Dayton, Ohio.

The competition involved 33 universities from across the nation with student-managed portfolio projects similar to Cal Poly’s.

The SMPP team, under the guidance of Finance Professor John Lindvall, manages about $500,000 of the Cal Poly Foundation’s endowment funds. From Dec. 1, 2000, to Nov. 30, 2001, the SMPP fund earned 0.1 percent, compared to an S&P 500 loss of 13.3 percent and a NASDAQ loss of 25.7 percent.

To make the finals, the students had to assemble a detailed report on the SMPP’s holdings, gains and losses over those 12 months.

The competition offered three fund management categories: value, growth and aggressive.

The team, which competed in a field of 11 teams in the blend category and was among the top five chosen to go on to the finals, includes students from engineering, business and computer science.

The SMPP team placed second, behind Michigan Tech.

"It was a combination of factors that made us the elite,” said financial advisors business seniors Ian Bronson, Nicole Colette, Matt Mahlman and Dan Pavlishok, advised by Finance Professor Larry Gorman.

Ticket information

Tickets to the performances listed in today’s Cal Poly Report are on sale at the Performing Arts Ticket Office 10 a.m.-6 p.m. weekdays and 10 a.m.-4 p.m. Saturdays. Call ext. 6-2679 or fax your order to ext. 6-6088. Tickets can also be bought online via Tickets.com. Visit the Performing Arts Center’s Web site at pacolo.org and click "Event Calendar." The Web site lists Cal Poly Arts events, including audio and video samples of artists’ work, can be found at the Web site at www.calpolyarts.org.

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Open forums scheduled for dean of agriculture

Candidates for the position of dean of the College of Agriculture have been invited to campus and will give short presentations during meetings this week.

The faculty and staff are invited to meet with finalists at the following times:

• Dr. William E. Carry, associate dean, College of Agriculture, Cal Poly, 10-11 a.m., Friday (March 8), 107-112 SPB.

• Henry (Hank) Robaitaille, executive vice president, World Arts and Science Institute, 2:30-3:30 p.m., Tuesday (March 12), Veranda Café.

• Andrew St. Thomas, department head, Animal Science, Cal Poly, 2-3 p.m., March 13, 120-122 SPB.

Colin Scanes, professor of animal science at Iowa State University, was interviewed on campus March 4.

Facility Access Task Force holds meetings on Tuesdays

The Faculty Access Task Force is formed to advocate for people with disabilities at Cal Poly, holds open meetings noon-1 p.m. four times a quarter on every other Tuesday in the Student Services Building.

Attendees are welcome to bring a brown-bag lunch. An hour is set aside, from 1 to 2 p.m., for optional visits to sites of access concerns.

The task force reviews requests for architectural barrier removal, serves as a resource for access questions and issues, and recommends priorities for barrier removal.

For meeting schedules, agendas and minutes, go to the Facilities Planning Web site at www.facilities.calpoly.edu/Facilities_Planning and click on "Facility Access." Architectural Barrier Removal Request forms are also posted on the Web site.

For more information, call Rex Wolf in Facilities Planning at ext. 6-2112 or Mike Klemenz at ext. 6-2111.

CPR schedule

The Cal Poly Report is posted online at www.calpoly.edu/commerce every Wednesday during the academic year. It can also be accessed on the "A2"-伀 site on the Cal Poly Home Page. Click on "C." Articles are due to Public Affairs by
Dateline...  
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Tuesday, March 12
Books as High Noon: Phil Fetzer (Political Scientist), "Bowell's Preposterous Talk," by Adam Sisman, English, 8 a.m., $10.00 to $30.00.   
Play: "Tasting of the Shrew," Theatre, 8 p.m. (Pre-show lecture by Patricia Timod, English, PAC Philips Hall, 7 p.m.

Wednesday, March 13
Music: Chris Laterza, BackStage Pizza, 6 p.m.   
Music: Sweet Honey in the Rock, Christopher Cohan Center's Harman Hall, 8 p.m.   

Thursday, March 14
Music: John Bankston, BackStage Pizza, 6 p.m.

Rominger...  
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where specific needs have been determined, may be developed as a result of this collaboration.

Rominger served as California's secretary of agriculture during Gov. Edmund G. Brown Jr.'s administration. In 1999, President Clinton appointed him as the deputy secretary for the U.S. Department of Agriculture, a post he held until 2001.

Dairy cattle...  
Continued from page 1

The four-member team, coached by Dairy Science Professor Stan Henderson, placed first in the Reins, Swiss and Jersey divisions at the recent competition. Team member Natalie Borba also earned the title of High Scoring Individual in the same divisions. Other team members are John Azevedo, Sarah Renner and Tony Evangelo.

Cal Poly wins silver...  
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Director Albert Nunes," Administrations Director James Maraviglia said.

Cal Poly's award-winning CD-ROM includes a section on Central Coast activities, with short feature movies of students kayaking, hiking, rock climbing and surfboarding; 360-degree photos of Central Coast beaches; campus photo tours and interactive maps; and interviews with each of the university's department heads.

Flamenco flair

Renowned flamenco master Antonio Marquez will perform traditional Spanish dance with a company of 19 dancers, singers and musicians at 7 p.m. March 24 in the Christopher Cohan Center's Harman Hall. He began his formal training at age 12 and joined the Ballet Nacional de España at 18. He danced in leading roles with the company for 15 years before forming his own troupe, La Compañía Española de Antonio Marquez. Tickets to this Cal Poly Arts performance are $20 to $68.

Position Vacancies

STATE: The official listing of staff and management vacancy is posted at least two weeks prior to closing date on Cal Poly's Web site at www.calpoly.edu. Submit Employment from the Cal Poly links drop-down box. As a courtesy to our on-campus employees, job vacancies are also published in the Cal Poly Report. Positions marked with an asterisk indicate that qualified on-campus applicants in bargaining units 3, 6, 7 and 9 will be given first consideration. Job applications must be received in Human Resources, Ams. 110, by 5 p.m. on the closing date.

#275-Clinical Laboratory Technician II, Health Services, Student Affairs, $22.53-$29.56/hour, temporary, intermittent, on call to June 30. Closing date: March 15.

#276-Clinical Laboratory Technician II, Health Services, Student Affairs, $31.97-$45.00/month, temporary, to June 30. Closing date: March 15.

#278-Advisor (Student Services Professional III), Advising Center, Orfalea College of Business, $31,454-$44,236/year, closing date: March 15.  

#281-Records Associate Pool (Administrative Support Assistant II), Enrollment Support Services, Academic Records, $12.92-$19.36/hour, temporary, intermittent, on call to June 30. Closing date: March 15.


#285-Administrative Support Assistant I*, Reprintshop, Administration and Finance, $1,867-$2,705/month. Closing date: March 15.

#286-Parking Officer*, University Police, $2,195-$2,929/month. Closing date: March 15.


#290-Public Affairs Communication Specialist I, Extended University Programs and Services, $12,400-$15,000/year. Closing date: March 15.

#321-Dean of Students, University Housing, $1,550-$2,150/month, temporary, to June 30. Closing date: March 15.

#336-Advisor (Student Services Professional III), Advising Center, Orfalea College of Business, $31,454-$44,236/year, temporary, intermittent, on call to June 30. Closing date: March 15.

#386-Bilingual New Student Orientation Coordinator, University Housing, $18,500-$21,000/year, temporary, to March 31. Closing date: March 15.

#396-Advisor (Student Services Professional III), Advising Center, Orfalea College of Business, $31,454-$44,236/year, temporary, intermittent, on call to June 30. Closing date: March 15.

#407-Advisor (Student Services Professional III), Advising Center, Orfalea College of Business, $31,454-$44,236/year, temporary, intermittent, on call to June 30. Closing date: March 15.

#408-Advisor (Student Services Professional III), Advising Center, Orfalea College of Business, $31,454-$44,236/year, temporary, intermittent, on call to June 30. Closing date: March 15.

#410-Senior Administrator (Assistant to the Associate Dean), University Housing, $41,900-$47,000/year, temporary, to March 31. Closing date: March 15.

#412-Advisor (Student Services Professional III), Advising Center, Orfalea College of Business, $31,454-$44,236/year, temporary, intermittent, on call to June 30. Closing date: March 15.

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