

# Upcoming PostgreSQL Features

---

BRUCE MOMJIAN,  
SOFTWARE RESEARCH ASSOCIATES

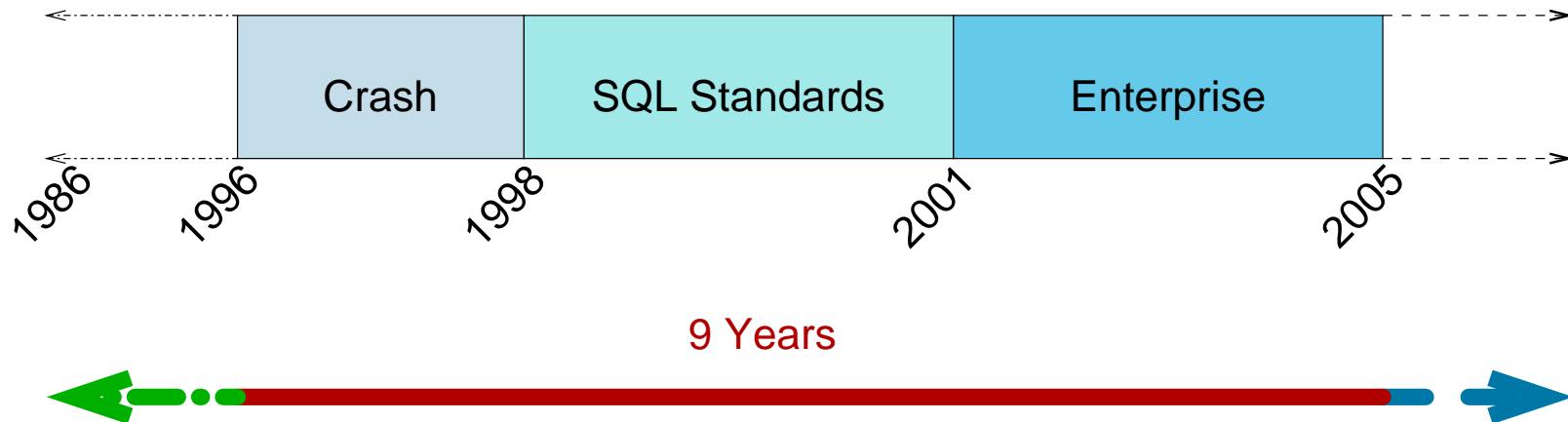
August, 2005



## Abstract

This outlines the upcoming features of PostgreSQL 8.1.

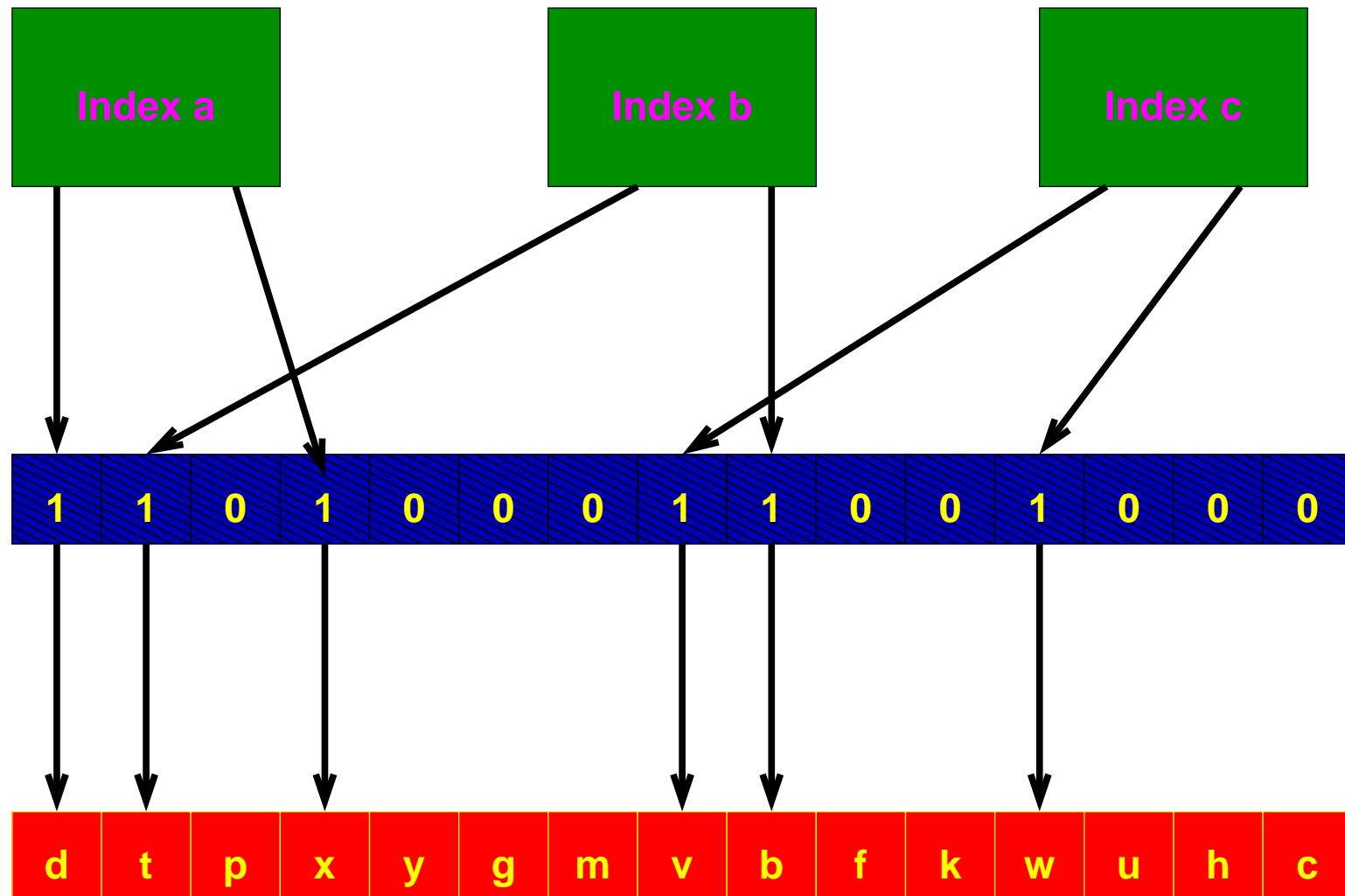
# PostgreSQL Evolution



Enterprise features include:

- Improved Performance
- Simplified Maintenance and Administration
- Efficient 24/7 Operation

# Indexes Combined Using Bitmaps



# Two-phase Commit

Session 1	Session 2
BEGIN WORK	BEGIN WORK
UPDATE acct SET balance = balance - 100;	
	UPDATE acct SET balance = balance + 100;
PREPARE TRANSACTION 'balance1';	
	PREPARE TRANSACTION 'balance2';
COMMIT PREPARED 'balance1';	
	COMMIT PREPARED 'balance2';

## Major Code Improvements

- Automatic vacuum moved from /contrib to the main server
- Global shared buffer lock removed, improves SMP performance

# Functions Returning Multiple Out Parameters

```
CREATE FUNCTION f1(IN i INT, OUT j INT, OUT k TEXT) AS $$  
BEGIN  
j := i+1;  
k := 'foo';  
END$$  
LANGUAGE plpgsql;  
SELECT f1(42);  
f1  
-----  
(43,foo)  
(1 row)  
SELECT * FROM f1(42);  
j | k  
---+---  
43 | foo  
(1 row)
```

INOUT parameters are also supported. Use RETURN NEXT to return multiple rows.

# Shared Row Locks

```
SELECT *
  FROM accounts
 WHERE accno = 7823231
  FOR SHARE;
```

# The PostgreSQL Universe

- New companies in the USA since last year — Pervasive, Green Plum, EnterpriseDB, *Unisys*
- 1.5 million downloads of 8.0.X
- New users

# Questions?

