

Table of Contents

Introduction

Plan 9 From Bell Labs	1
<i>Rob Pike, Dave Presotto, Sean Dorward, Bob Flandrena, Ken Thompson, Howard Trickey, and Phil Winterbottom</i>	
An overview of the system; read at least this paper before you install.	
The Use of Name Spaces in Plan 9	23
<i>Rob Pike, Dave Presotto, Ken Thompson, Howard Trickey, and Phil Winterbottom</i>	
What's in a name?	
The Organization of Networks in Plan 9	29
<i>Dave Presotto and Phil Winterbottom</i>	
Connecting the pieces. The details in the paper are outdated but the ideas still apply.	
Security in Plan 9	43
<i>Russ Cox, Eric Grosse, Rob Pike, Dave Presotto, and Sean Quinlan</i>	
An overview of the security architecture.	

Programming

How to Use the Plan 9 C Compiler	63
<i>Rob Pike</i>	
The starting point for C programming under Plan 9.	
Changes to the Programming Environment in the Fourth Release of Plan 9	77
<i>Rob Pike</i>	
An overview of the changes to the C library since the Third Release.	
APE — The ANSI/POSIX Environment	83
<i>Howard Trickey</i>	
Moving C code between UNIX and Plan 9.	
Acid: A Debugger Built From A Language	87
<i>Phil Winterbottom</i>	
An overview paper about the Acid debugger.	
Acid Manual	101
<i>Phil Winterbottom</i>	
The reference manual for the language and its libraries.	
Maintaining Files on Plan 9 with Mk	127
<i>Andrew G. Hume and Bob Flandrena</i>	
An introduction to Plan 9's replacement for make.	
Plan 9 Mkfiles	141
<i>Bob Flandrena</i>	
The conventions for using mk in Plan 9.	
A Manual for the Plan 9 assembler	149
<i>Rob Pike</i>	
Things you'd rather not know.	

User Interfaces

8½, the Plan 9 Window System	159
<i>Rob Pike</i>	
An introduction to the (previous) window system and its unusual implementation.	
Rc — The Plan 9 Shell	169
<i>Tom Duff</i>	
An introduction to the new shell, complete with examples.	
The Text Editor sam	185
<i>Rob Pike</i>	
Sam is the standard editor on Plan 9.	
Acme: A User Interface for Programmers	215
<i>Rob Pike</i>	
A system with a more radical approach to programming and editing.	
Plumbing and Other Utilities	231
<i>Rob Pike</i>	
Inter-process communication that enlivens the interactive user interface.	

Implementation

Hello World, or Καλημέρα κόσμε, or こんにちは世界	247
<i>Rob Pike and Ken Thompson</i>	
The details about Plan 9's character set: the Unicode Standard plus an ASCII-compatible encoding.	
Plan 9 C Compilers	259
<i>Ken Thompson</i>	
The design and some internals of the compiler suite.	
Adding Application Support for a New Architecture in Plan 9	271
<i>Bob Flandrena</i>	
The procedures necessary to add a new instruction set to Plan 9's programming environment.	
The Plan 9 File Server	279
<i>Ken Thompson</i>	
The design of the central file server and its novel backup system.	
Venti: A new approach to archival storage	287
<i>Sean Quinlan and Sean Dorward</i>	
Archival block-level storage using secure hashes as block identifiers.	
The IL protocol	301
<i>Dave Presotto and Phil Winterbottom</i>	
A description of the Internet protocol Plan 9 uses for internal communication.	
Lexical File Names in Plan 9, or, Getting Dot-Dot Right	307
<i>Rob Pike</i>	
A vexing old problem solved: how to make <code>pwd</code> get the right answer in the face of multiply-bound directories.	
Process Sleep and Wakeup on a Shared-memory Multiprocessor	319
<i>Rob Pike, Dave Presotto, Ken Thompson, and Gerard Holzmann</i>	
A detailed study of a central issue in the Plan 9 kernel.	

Miscellany

A Guide to the Lp Printer Spooler	325
<i>Paul Glick</i>	
Administering the suite of tools to drive PostScript printers.	
Troff User's Manual	333

Joseph F. Ossanna and Brian W. Kernighan
The old warhorse, updated for Unicode characters.

Using SPIN	373
<i>Gerard Holzmann</i>	
An introduction to a tool for analyzing parallel and distributed programs.	
Installation	
The Various Ports	400
The hardware requirements for the Plan 9 compilers and kernels.	