Contents

Welcome to Issue 200

Highlights

08 20 years of change
From windowed hard drives to pencil-modded CPUs, Richard Swinburne looks at how PCs have changed over the past two decades.

16 GeForce NOW
Nvidia’s game-streaming service is now out of beta. We try out the official experience.

20 Corsair air cooler
Corsair is well known for its all-in-one liquid coolers, but it’s now applied its R&D skills to a full-on CPU air cooler that’s a bit different to the norm.

40 CPU clash
We dive straight into the carnage between Intel and AMD, testing 15 of the latest CPUs, from 6-core workhorses to 16-core monsters.

68 Mods vs games
What’s the difference between a mod and a game? Rick Lane explores the impact of modding on PC gaming.

70 Black Mesa
We play through Crowbar Collective’s remake of Half-Life, which makes the disappointing Planet Xen section much more interesting.

76 How memory works
Don’t know your tRCD from your tCL? Edward Chester explains how your PC’s memory works its magic.

84 200 issues of Custom PC
Custom PC veteran Ben Hardwidge looks back to 2003, when the very first issue of Custom PC was being put together.

90 Iron Maiden
Two minutes to Midnight! Nope, wrong iron maiden, but still a good one. Ali Abbas based this stunning PC build on the infamous medieval torture instrument.

96 Hobby tech
Gareth Halfacree explores the hark back to 1990s social networking, the tilde.club, and tries out the Orange Pi 4 B and Pi Hut ZeroDock.

102 3D-print your own PC case
Modding extraordinaire Antony Leather shows you how to design a PC case from scratch with CAD, and then 3D-print it.

107 Retro tech: Slot processors
Holograms, black boxes and mountains of cache. Ben Hardwidge recalls the weird moment when Intel’s CPUs came in slot format.
Cover guide

Reviewed this month

Regulars

3 From the editor
8 Richard Swinburne
10 Tracy King
12 Incoming
14 Letters
38 Custom kit
60 How we test
62 Elite products
68 Inverse look
74 Reality check
94 Hobby tech
99 For the win
100 Customised PC
102 How to guides
107 Retro tech
110 Readers’ drives
114 James Gorbold

Reviewed this month

GAME STREAMING
16 Nvidia GeForce NOW

CASES
18 Kolink Big Chungus

COOLING
20 Corsair A500

NETWORKING
22 Synology DiskStation DS220+ji

PERIPHERALS
24 Corsair M55 RGB Pro
25 Corsair MM500 Extended 3XL

3D PRINTING
28 Dremel Digilab 3D45

LAPTOPS
30 MSI GT76 Titan DT 9SG

PC SYSTEMS
32 Scan 3XS Vengeance RTX Ti
34 The Official Fnatic Gaming PC

Custom kit

38 Tablet Pillow Stand
38 T-Core Portable Charger
39 Panic Button
39 Privise Webcam Cover
39 KeySmart Pro

CPU Labs

41 Intel Core i3-9350KF
42 Intel Core i5-9400F
43 AMD Ryzen 5 3600
44 Intel Core i5-9600K
46 AMD Ryzen 5 3600X
47 AMD Ryzen 7 3700X
48 AMD Ryzen 7 3800X
50 Intel Core i7-9700K
51 AMD Ryzen 9 3900X
52 Intel Core i9-9900KF
53 Intel Core i9-10900X
54 Intel Core i9-10900KS
55 AMD Ryzen 9 3950X
56 Intel Core i9-10920X
57 Intel Core i9-10940X

Games

69 Darksiders Genesis
70 Black Mesa
72 Transport Fever 2
73 Journey to the Savage Planet
74 Doctor Who: The Edge of Time

Hobby Tech

96 Orange Pi 4 B
98 Pi Hut ZeroDock