



Diablo: from one ISA to another



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Heterogeneous multicore support (aka: the excuse to buy a PS3)

- Fully implemented Cell 32 and 64 bit support (dynamically linked binaries)
- Working on overlay support
- Investigating cross-ISA optimisations

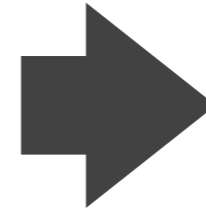
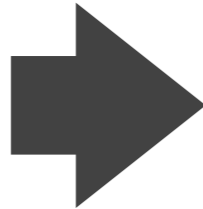
Other activities

- Provide support for various people using Diablo (Edinburgh, Samsung, ...)
- Fixed up ARM version and reinstated regression tests
- Improved compaction rate for PPC32 and PPC64
- Working on IA32 ISA diversification (MSc student)

ARM visit

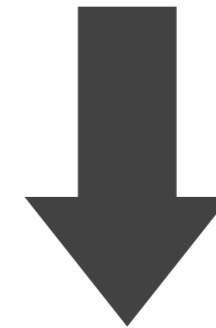
source code

```
#include <stdio.h>
int main(int argc, char **argv) {
    printf("hello, world!\n");
}
```



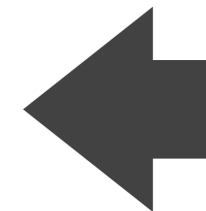
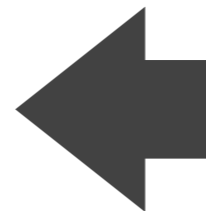
optimised library

```
00100100111101
111000110010110100101010010
101010101101010101010101010
10101010101010101010110101010
01010101010
111000110010110100101010010
101010101101010101010101010
10101010101010101010110101010
01010101010
111000110010110100101010010
101010101101010101010101010
10101010101010101010110101010
01010101010
111000110010110100101010010
```



executable

```
00100100111101
111000110010110100101010010
101010101101010101010101010
10101010101010101010110101010
01010101010
111000110010110100101010010
101010101101010101010101010
10101010101010101010110101010
01010101010
111000110010110100101010010
101010101101010101010101010
10101010101010101010110101010
01010101010
111000110010110100101010010
```



libraries

```
00100100111101
1110001100101101001010010
01010101010
00100100111101
1110001100101101001010010
010101010101010
1010101010101010
1010101010101010
101010101101010101010
01001010101010
```