

```
// farolito: [Spanish, paper lantern, diminutive of farol, lantern, from faro, lighthouse, lantern, from Latin pharus, from Pharus Pharos.]
// Stride 8 = 4x2, HalfStride = (2*sizeof(uint16_t))
uint32_t FNV1A_farolito(const char *str, uint32_t wrdlen)
{
    const uint32_t PRIME = 591798841;
    uint32_t hash32 = 2166136261;
    uint32_t hash32B = 2166136261;
    uint32_t hash32C = 2166136261;
    uint32_t hash32D = 2166136261;
    const char *p = str;
    uint32_t Loop_Counter;
    uint32_t Second_Line_Offset;

    if (wrdlen >= 2*(2*sizeof(uint16_t))) {
        Loop_Counter = (wrdlen>>2);
        Loop_Counter++;
        Second_Line_Offset = wrdlen-(Loop_Counter)*((2*sizeof(uint16_t)));
        for(; Loop_Counter; Loop_Counter--, p += (2*sizeof(uint16_t))) {
            hash32 = (hash32 ^ *(uint16_t*)(p+0)) * PRIME;
            hash32B = (hash32B ^ *(uint16_t*)(p+0+Second_Line_Offset)) * PRIME;
            hash32C = (hash32C ^ *(uint16_t*)(p+0+2)) * PRIME;
            hash32D = (hash32D ^ *(uint16_t*)(p+0+Second_Line_Offset+2)) * PRIME;
        }
        hash32 = _rotl_KAZE((hash32 ^ _rotl_KAZE(hash32B,16)) * PRIME,24);
        hash32 = _rotl_KAZE((hash32 ^ _rotl_KAZE(hash32C,16)) * PRIME,16);
        hash32 = _rotl_KAZE((hash32 ^ _rotl_KAZE(hash32D,16)) * PRIME,8);
    } else {
        // Cases: 0,1,2,3,4,5,6,7:
        if (wrdlen & 2*sizeof(uint16_t)) {
            hash32 = (hash32 ^ *(p+0)) * PRIME;
            hash32 = (hash32 ^ *(p+1)) * PRIME;
            hash32 = (hash32 ^ *(p+2)) * PRIME;
            hash32 = (hash32 ^ *(p+3)) * PRIME;
            p += 2*sizeof(uint16_t);
        }
        if (wrdlen & sizeof(uint16_t)) {
            hash32 = (hash32 ^ *(p+0)) * PRIME;
            hash32 = (hash32 ^ *(p+1)) * PRIME;
            p += sizeof(uint16_t);
        }
        if (wrdlen & 1) {
            hash32 = (hash32 ^ *(p+0)) * PRIME;
        }
    }
    return hash32 ^ (hash32 >> 16);
}
// FNV1A_farolito's main loop, 0194b-01918+2 = 53bytes:
/*
.B4.2:
01918 0f b7 2a      movzx ebp, WORD PTR [edx]
0191b 33 cd          xor ecx, ebp
0191d 0f b7 6a fc      movzx ebp, WORD PTR [-4+edx]
01921 33 fd          xor edi, ebp
01923 0f b7 6a 02      movzx ebp, WORD PTR [2+edx]
01927 33 f5          xor esi, ebp
01929 0f b7 6a fe      movzx ebp, WORD PTR [-2+edx]
0192d 33 dd          xor ebx, ebp
0192f 69 c9 39 22 46    imul ecx, ecx, 591798841
23              add edx, 4
01935 83 c2 04          add ecx, 4
01938 69 ff 39 22 46    imul edi, edi, 591798841
23              imul esi, esi, 591798841
0193e 69 f6 39 22 46    imul ebx, ebx, 591798841
23              dec eax
0194a 48              jne .B4.2
0194b 75 cb
.B4.3:
*/
```

On Intel T7500 2,2GHz 16KB (L1 cached) block
hashed at **?,???MB/s**
(?,???*1024*1024)/2,200,000,000=**?.?B/c**

SUBFAST!

Simplificator / Dumbdownificator



FNV1A_farolito - a nifty text hasher

[illegible]

[illegible]

```
e3d1c3e4f6d5b6a4c5e6f4d3b2c4e5f3d4f5d6b5a3b1d2f1h2g4h6g8e7c8a7c6d8b7a5b3a1c2e1g2h4g6h8f7g5h7f8d7b8a6b4a2c1e2g1h3f2h1g3h5g7e8c7a8
e3d1c3e4f6d5b6a4c5e6f4d3b2c4e5f3d4f5d6b5a3b1d2f1h2g4h6g8e7c8a7c6d8b7a5b3a1c2e1g2h4g6h8f7g5h7f8d7b8a6b4a2c1e2g1h3f2h1g3h5g7e8c7a8
e3d1c3e4f6d5b6a4c5e6f4d3b2c4e5f3d4f5d6b5a3b1d2f1h2g4h6g8e7c8a7c6d8b7a5b3a1c2e1g2h4g6h8f7g5h7f8d7b8a6b4a2c1e2g1h3f2h1g3h5g7e8c7a8
e3d1c3e4f6d5b6a4c5e6f4d3b2c4e5f3d4f5d6b5a3b1d2f1h2g4h6g8e7c8a7c6d8b7a5b3a1c2e1g2h4g6h8f7g5h7f8d7b8a6b4a2c1e2g1h3f2h1g3h5g7e8c7a8
e3d1c3e4f6d5b6a4c5e6f4d3b2c4e5f3d4f5d6b5a3b1d2f1h2g4h6g8e7c8a7c6d8b7a5b3a1c2e1g2h4g6h8f7g5h7f8d7b8a6b4a2c1e2g1h3f2h1g3h5g7e8c7a8
e3d1c3e4f6d5b6a4c5e6f4d3b2c4e5f3d4f5d6b5a3b1d2f1h2g4h6g8e7c8a7c6d8b7a5b3a1c2e1g2h4g6h8f7g5h7f8d7b8a6b4a2c1e2g1h3f2h1g3h5g7e8c7a8
FNW1A_farolito : KT_DumpCounter = 0,000,134,217,729; 000,000,001 x MAXcollisionsAtSomeSlots = 0,00,011; HASHfreeSLOTS = 0,049,563,990
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,000,134,217,729; 000,000,004 x MAXcollisionsAtSomeSlots = 0,00,011; HASHfreeSLOTS = 0,049,561,215
FNW1A_farolito : KT_DumpCounter = 0,000,268,435,457; 000,000,003 x MAXcollisionsAtSomeSlots = 0,00,014; HASHfreeSLOTS = 0,018,305,652
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,000,268,435,457; 000,000,004 x MAXcollisionsAtSomeSlots = 0,00,014; HASHfreeSLOTS = 0,018,307,048
FNW1A_farolito : KT_DumpCounter = 0,000,402,653,185; 000,000,001 x MAXcollisionsAtSomeSlots = 0,00,018; HASHfreeSLOTS = 0,006,759,647
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,000,402,653,185; 000,000,008 x MAXcollisionsAtSomeSlots = 0,00,017; HASHfreeSLOTS = 0,006,762,415
FNW1A_farolito : KT_DumpCounter = 0,000,536,870,913; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,020; HASHfreeSLOTS = 0,002,496,029
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,000,536,870,913; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,020; HASHfreeSLOTS = 0,002,496,170
FNW1A_farolito : KT_DumpCounter = 0,000,671,088,641; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,022; HASHfreeSLOTS = 0,000,920,561
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,000,671,088,641; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,023; HASHfreeSLOTS = 0,000,922,884
FNW1A_farolito : KT_DumpCounter = 0,000,805,306,369; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,024; HASHfreeSLOTS = 0,000,339,001
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,000,805,306,369; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,026; HASHfreeSLOTS = 0,000,339,970
FNW1A_farolito : KT_DumpCounter = 0,000,939,524,097; 000,000,001 x MAXcollisionsAtSomeSlots = 0,00,027; HASHfreeSLOTS = 0,000,125,275
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,000,939,524,097; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,028; HASHfreeSLOTS = 0,000,126,260
FNW1A_farolito : KT_DumpCounter = 0,001,073,741,825; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,030; HASHfreeSLOTS = 0,000,046,375
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,001,073,741,825; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,030; HASHfreeSLOTS = 0,000,046,780
FNW1A_farolito : KT_DumpCounter = 0,001,207,959,553; 000,000,001 x MAXcollisionsAtSomeSlots = 0,00,032; HASHfreeSLOTS = 0,000,017,238
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,001,207,959,553; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,030; HASHfreeSLOTS = 0,000,017,200
FNW1A_farolito : KT_DumpCounter = 0,001,342,177,281; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,034; HASHfreeSLOTS = 0,000,006,389
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,001,342,177,281; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,033; HASHfreeSLOTS = 0,000,006,373
FNW1A_farolito : KT_DumpCounter = 0,001,476,395,009; 000,000,001 x MAXcollisionsAtSomeSlots = 0,00,035; HASHfreeSLOTS = 0,000,002,284
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,001,476,395,009; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,034; HASHfreeSLOTS = 0,000,002,338
FNW1A_farolito : KT_DumpCounter = 0,001,610,612,737; 000,000,001 x MAXcollisionsAtSomeSlots = 0,00,037; HASHfreeSLOTS = 0,000,000,859
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,001,610,612,737; 000,000,006 x MAXcollisionsAtSomeSlots = 0,00,035; HASHfreeSLOTS = 0,000,000,834
FNW1A_farolito : KT_DumpCounter = 0,001,744,830,465; 000,000,001 x MAXcollisionsAtSomeSlots = 0,00,038; HASHfreeSLOTS = 0,000,000,305
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,001,744,830,465; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,038; HASHfreeSLOTS = 0,000,000,304
FNW1A_farolito : KT_DumpCounter = 0,001,879,048,193; 000,000,001 x MAXcollisionsAtSomeSlots = 0,00,040; HASHfreeSLOTS = 0,000,000,112
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,001,879,048,193; 000,000,004 x MAXcollisionsAtSomeSlots = 0,00,040; HASHfreeSLOTS = 0,000,000,124
FNW1A_farolito : KT_DumpCounter = 0,002,013,265,921; 000,000,004 x MAXcollisionsAtSomeSlots = 0,00,041; HASHfreeSLOTS = 0,000,000,032
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,002,013,265,921; 000,000,006 x MAXcollisionsAtSomeSlots = 0,00,041; HASHfreeSLOTS = 0,000,000,046
FNW1A_farolito : KT_DumpCounter = 0,002,147,483,649; 000,000,001 x MAXcollisionsAtSomeSlots = 0,00,044; HASHfreeSLOTS = 0,000,000,012
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,002,147,483,649; 000,000,004 x MAXcollisionsAtSomeSlots = 0,00,043; HASHfreeSLOTS = 0,000,000,008
FNW1A_farolito : KT_DumpCounter = 0,002,281,701,377; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,045; HASHfreeSLOTS = 0,000,000,004
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,002,281,701,377; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,045; HASHfreeSLOTS = 0,000,000,002
FNW1A_farolito : KT_DumpCounter = 0,002,415,919,105; 000,000,003 x MAXcollisionsAtSomeSlots = 0,00,046; HASHfreeSLOTS = 0,000,000,002
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,002,415,919,105; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,047; HASHfreeSLOTS = 0,000,000,000
FNW1A_farolito : KT_DumpCounter = 0,002,550,136,833; 000,000,001 x MAXcollisionsAtSomeSlots = 0,00,049; HASHfreeSLOTS = 0,000,000,000
CRC32 0x8F6E37A0, iSCSI: KT_DumpCounter = 0,002,550,136,833; 000,000,002 x MAXcollisionsAtSomeSlots = 0,00,048; HASHfreeSLOTS = 0,000,000,
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