

BinToAsc

```
206 BinToAsc:
207     push    ebp
208     mov     ebp, esp
209     mov     eax, binary_integer
210     xor     ecx, ecx
211     mov     ecx, 31
212 loop:
213     shl     eax, 1
214     adc     ecx, ecx
215     mov     edx, eax
216     cmp     dl, 32
217     jb      ascii_zero
218     mov     dl, dl - 32
219 ascii_zero:
220     mov     [edi], dl
221     inc     edi
222     dec     ecx
223     jnz     loop
224     pop     ebp
225     ret
```

This procedure works by iterating over the bits in the binary integer, starting with the most significant bit.

For each bit, the procedure shifts the binary integer left by 1 bit and adds the carry flag to the counter register (ECX).

The carry flag is used to keep track of whether the previous iteration resulted in a carry-out.

If the binary integer is less than 32, then the least significant bit will be 0 and the carry flag will be 0. In this case, the procedure will move the ASCII character '0' (0x30) to the buffer at the address specified by the register EDI.

If the binary integer is greater than or equal to 32, then the least

significant bit will be 1 and the carry flag will be 1.

In this case, the procedure will move the ASCII character '1' (0x31) to the buffer at the address specified by the register EDI.

After the procedure has finished iterating over the bits in the binary integer, the buffer at the address specified by the register EDI will contain the ASCII binary string representation of the binary integer.

Example 2 Usage:

The following code snippet shows how to use the BinToAsc procedure to convert the binary integer 123 (01111011) to an ASCII binary string:

```
229 mov     eax, 123
230 call    BinToAsc
231
232 ;The buffer at the address specified by the register `EDI`
233 ;will now contain the ASCII binary string "01111011".
```

The BinToAsc procedure is a simple and efficient way to convert a binary integer to an ASCII binary string. It is useful for displaying binary data on the console or in a file.