

F.4.1 文件digcalc.h

```
577 #define HASHLEN 16
typedef char HASH[HASHLEN];
#define HASHHEXLEN 32
typedef char HASHHEX[HASHHEXLEN+1];
#define IN
#define OUT
/* calculate H(A1) as per HTTP Digest spec */
void DigestCalcHA1(
    IN char * pszAlg,
    IN char * pszUserName,
    IN char * pszRealm,
    IN char * pszPassword,
    IN char * pszNonce,
    IN char * pszCNonce,
    OUT HASHHEX SessionKey
);

/* calculate request-digest/response-digest as per HTTP Digest spec */
void DigestCalcResponse(
    IN HASHHEX HA1, /* H(A1) */
    IN char * pszNonce, /* nonce from server */
    IN char * pszNonceCount, /* 8 hex digits */
    IN char * pszCNonce, /* client nonce */
    IN char * pszQop, /* qop-value: "", "auth", "auth-int" */
    IN char * pszMethod, /* method from the request */
    IN char * pszDigestUri, /* requested URL */
    IN HASHHEX HEntity, /* H(entity body) if qop="auth-int" */
    OUT HASHHEX Response /* request-digest or response-digest */
);
```

F.4.2 文件 "digcalc.c"

```
#include <global.h>
#include <md5.h>
#include <string.h>
#include "digcalc.h"

void CvtHex(
    IN HASH Bin,
    OUT HASHHEX Hex
)
{
    unsigned short i;
    unsigned char j;
    for (i = 0; i < HASHLEN; i++) {
        j = (Bin[i] >> 4) & 0xf;
        if (j <= 9)
            Hex[i*2] = (j + '0');
        else
            Hex[i*2] = (j + 'a' - 10);
        j = Bin[i] & 0xf;
```