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Part I

ASN.1 Basics

Chapter 1

Abstract Syntax Notation:

the root of the registration tree where the only thing of interest is some of the tree's subsequence.

```

    thi s-document
    thi s-exampl e
        thi s-documentssorted-exampl es(0)hi s-exampl e(1)

```

1.2 Some of the ASN.1 ringtypes

1.2.1 The IA5Stringtype

This is essentially the ASCII, with 128 character codes available (7 lower bits of 8-bit byte).

1.2.2 The UTF8Stringtype

This is the character string which encodes the full Unicode range (4 bytes) using multibyte character sequences.

1.2.3 The NumericStringtype

This type represents the character string with the alphabet consisting of numbers ("0" to "9") and a space.

1.2.4 The PrintableStringtype

The character string with the following alphabet: space, "

Part II

Using the *ASN.1* Compiler

Chapter 2

Introduction to the ASN.1 Compiler

asn1c <spec. asn1>

tion

First of all, you would want to th

```
Rectangle_t *
simple_deserializer(void *buffer, size_t buf_size) {
    Rectangle_t *rect = 0;    /* Note this 0! */
    ber_dec_rval_t rval;

    rval = asn1_DEF_Rectangle->ber_decoder(
        &asn1_DEF_Rectangle,
        (void **)&rect,
        buffer, buf_size,
        0);
```


2.2.2.2 Encoding DER

2.2.2.5 Freeing the target structure

Freeing the structure is sighty more compex than it may seem to. When the ASN.1 structure is freed, al the members of the structure and their submembers etc etc are recursivey freed too. But it might not be feasibe to free the structure itsef. Consider the folowing case:

Bibliography

[Dub00] Olivier Dubuisson –