

Interpret IPPcode19

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Chapter 1

IPP-interpret

Parser of IPP2019Code: [parse.php](#)

Chapter 2

Module Index

2.1 Modules

Here is a list of all modules:

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Chapter 3

File Index

3.1 File List

Here is a list of all documented files with brief descriptions:

parse.php	13
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Chapter 4

Module Documentation

4.1 Xml_group

Functions

- `xml_init ()`
XML Initialization.
- `xml_instr ($instruction)`
XML instruction generator.
- `xml_attr ($attr, $number, $type)`
XML attribute generator.
- `xml_end ()`
XML end document.

4.1.1 Detailed Description

Functions for generating xml-output

4.1.2 Function Documentation

4.1.2.1 xml_attr()

```
xml_attr (  
    $attr,  
    $number,  
    $type )
```

XML attribute generator.

Parameters

in	<i>attr</i>	Attribute
in	<i>number</i>	Number of attribute
in	<i>type</i>	Type of attribute

4.1.2.2 xml_instr()

```
xml_instr (  
    $instruction )
```

XML instruction generator.

Parameters

in	<i>instruction</i>	Instruction
----	--------------------	-------------

4.2 Attr_group

Functions

- `var_attr` (\$attr, \$number)
Check and Generate <variable> attribute.
- `sybm_attr` (\$attr, \$number)
Check and Generate <symbol> attribute.
- `label_attr` (\$attr, \$number)
Check and Generate <label> attribute.
- `type_attr` (\$attr, \$number)
Check and Generate <type> attribute.
- `is_label` (\$attr)
Check if attr is <label>
- `after_instr` (\$attr)
Check attribute after instruction.

4.2.1 Detailed Description

Functions for checking attributes

4.2.2 Function Documentation

4.2.2.1 after_instr()

```
after_instr (
    $attr )
```

Check attribute after instruction.

Parameters

in	attr	Attribute
----	------	-----------

Returns

{ERR: if attr is not " or ' # <some_text>' else OK}

4.2.2.2 is_label()

```
is_label (
    $attr )
```

Check if attr is <label>

Parameters

in	<i>attr</i>	Attribute
----	-------------	-----------

Returns

{ERR: if attr is not <type> else OK}

4.2.2.3 label_attr()

```
label_attr (  
    $attr,  
    $number )
```

Check and Generate <label> attribute.

Parameters

in	<i>attr</i>	Attribute
in	<i>number</i>	Number of attribute

Returns

{ERR: if attr is not <label> else OK}

4.2.2.4 symb_attr()

```
symb_attr (  
    $attr,  
    $number )
```

Check and Generate <symbol> attribute.

Parameters

in	<i>attr</i>	Attribute
in	<i>number</i>	Number of attribute

Returns

{ERR: if attr is not <symb> else OK}

4.2.2.5 type_attr()

```
type_attr (
    $attr,
    $number )
```

Check and Generate <type> attribute.

Parameters

in	<i>attr</i>	Attribute
in	<i>number</i>	Number of attribute

Returns

{ERR: if attr is not <type> else OK}

4.2.2.6 var_attr()

```
var_attr (
    $attr,
    $number )
```

Check and Generate <variable> attribute.

Parameters

in	<i>attr</i>	Attribute
in	<i>number</i>	Number of attribute

Returns

{ERR: if attr is not *else OK*}

Chapter 5

File Documentation

5.1 parse.php File Reference

Functions

- `xml_init ()`
XML Initialization.
- `xml_instr ($instruction)`
XML instruction generator.
- `xml_attr ($attr, $number, $type)`
XML attribute generator.
- `xml_end ()`
XML end document.
- `var_attr ($attr, $number)`
Check and Generate <variable> attribute.
- `symb_attr ($attr, $number)`
Check and Generate <symbol> attribute.
- `label_attr ($attr, $number)`
Check and Generate <label> attribute.
- `type_attr ($attr, $number)`
Check and Generate <type> attribute.
- `is_label ($attr)`
Check if attr is <label>
- `after_instr ($attr)`
Check attribute after instruction.
- `print_help ()`
Print a help message.
- `parse ()`
Main parse loop.
- `_main ($argc, $argv)`

Variables

- `const OK 0`
- `const PAR_ERROR 10`
- `const HEAD_ERROR 21`
- `const LEX_ERROR 22`
- `$instr_counter = 1`
- `$code = _main($argc, $argv)`

5.1.1 Detailed Description

Parser IPPcode19

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5.1.2 Function Documentation

5.1.2.1 parse()

parse ()

Main parse loop.

Function contains glob_array variable, that contains instructions sorted by attributes.

```
$glob_array = array(  
    array('CREATEFRAME', 'PUSHFRAME', 'POPFRAME', 'RETURN', 'BREAK'),  
    array('DEFVAR', 'POPS'),  
    array('PUSHS', 'EXIT', 'DPRINT', 'WRITE'),  
    array('LABEL', 'CALL', 'JUMP'),  
    array('MOVE', 'INT2CHAR', 'STRLEN', 'TYPE', 'NOT'),  
    array('READ'),  
    array('ADD', 'SUB', 'MUL', 'IDIV', 'LT', 'GT', 'EQ', 'AND', 'OR', 'STR2INT', 'CONCAT', 'GETCHAR', 'SETCHAR'),  
    array('JUMPIFEQ', 'JUMPIFNEQ')  
);
```

Also function contains parser's loop, where is going Lexical and Syntax analysis.

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