

NAME

dwarf_get_fde_info_for_all_regs - retrieve register rule row

LIBRARY

DWARF Access Library (libdwarf, -ldwarf)

SYNOPSIS

```
#include <libdwarf.h>
```

int

```
dwarf_get_fde_info_for_all_regs(Dwarf_Fde fde, Dwarf_Addr pc, Dwarf_Regtable *reg_table,
    Dwarf_Addr *row_pc, Dwarf_Error *err);
```

DESCRIPTION

Function **dwarf_get_fde_info_for_all_regs**() retrieves a row from the register rule table associated with the given FDE descriptor.

Argument *fde* should reference a valid DWARF FDE descriptor.

Argument *pc* should hold the program counter address to be used to locate the desired table row.

Argument *reg_table* should point to a *Dwarf_Regtable* descriptor which will hold the returned table row of register rules.

Argument *row_pc* should point to a location which will be set to the lowest program counter address associated with the table row.

If argument *err* is not NULL, it will be used to store error information in case of an error.

The *Dwarf_Regtable* descriptor is defined in the header file *<libdwarf.h>*:

```
typedef struct {
    struct {
        Dwarf_Small    dw_offset_relevant;
        Dwarf_Half     dw_regnum;
        Dwarf_Addr     dw_offset;
    } rules[DW_REG_TABLE_SIZE];
} Dwarf_Regtable;
```

For each of the register rules returned, the *dw_offset_relevant* field is set to 1 if the register rule has a

offset value. The *dw_regnum* field is set to the register number associated with the register rule. The *dw_offset* field is set to the offset value associated with the register rule.

The number of register columns returned is either the constant value `DW_REG_TABLE_SIZE` as defined in the header file `<libdwarf.h>`, or the value set by function `dwarf_set_frame_rule_table_size(3)`, whichever is smaller.

COMPATIBILITY

Function `dwarf_get_fde_info_for_all_regs()` is deprecated since it only supports DWARF2 frame sections. Applications should instead use function `dwarf_get_fde_info_for_all_regs3(3)` which supports both DWARF2 and DWARF3 frame sections.

RETURN VALUES

Function `dwarf_get_fde_info_for_all_regs()` returns `DW_DLV_OK` when it succeeds. In case of an error, it returns `DW_DLV_ERROR` and sets the argument *err*.

ERRORS

Function `dwarf_get_fde_info_for_all_regs()` can fail with:

- | | |
|------------------------------|---|
| [DW_DLE_ARGUMENT] | One of the arguments <i>fde</i> , <i>reg_table</i> or <i>row_pc</i> was NULL. |
| [DW_DLE_PC_NOT_IN_FDE_RANGE] | The program counter value provided in argument <i>pc</i> did not fall in the range covered by argument <i>fde</i> . |

SEE ALSO

`dwarf(3)`, `dwarf_get_fde_at_pc(3)`, `dwarf_get_fde_info_for_all_regs3(3)`,
`dwarf_get_fde_info_for_cfa_reg3(3)`, `dwarf_get_fde_info_for_reg(3)`, `dwarf_get_fde_info_for_reg3(3)`,
`dwarf_get_fde_n(3)`, `dwarf_set_frame_cfa_value(3)`, `dwarf_set_frame_rule_initial_value(3)`,
`dwarf_set_frame_rule_table_size(3)`, `dwarf_set_frame_same_value(3)`,
`dwarf_set_frame_undefined_value(3)`