```
**********************************************************
    5132 Sun Dec 15 16:25:57 2013
new/usr/src/man/man9f/ddi_intr_get_nintrs.9f
4382 ddi_intr_get_nintrs manpage typo
**********************************************************
'\" te
.\" Copyright (c) 2006, Sun Microsystems, Inc. All Rights Reserved.
.\" The contents of this file are subject to the terms of the Common Development
.\" You can obtain a copy of the license at usr/src/OPENSOLARIS.LICENSE or http:
.\" When distributing Covered Code, include this CDDL HEADER in each file and in
.TH DDI_INTR_GET_NINTRS 9F "Dec 13, 2013"
.TH DDI_INTR_GET_NINTRS 9F "Nov 13, 2006"
.SH NAME
ddi_intr_get_nintrs, ddi_intr_get_navail \- return number of interrupts
supported or available for a given interrupt type
.SH SYNOPSIS
.LP
.nf
#include <sys/types.h>
#include <sys/conf.h>
#include <sys/ddi.h>
#include <sys/sunddi.h>

\fBint\fR \fBddi_intr_get_nintrs\fR(\fBdev_info_t *\fR\fIdip\fR, \fBint\fR \fIty
.fi

.LP
.nf
\fBint\fR \fBddi_intr_get_navail\fR(\fBdev_info_t *\fR\fIdip\fR, \fBint\fR \fIty
.fi

.SH INTERFACE LEVEL
.sp
.LP
Solaris DDI specific (Solaris DDI).
.SH PARAMETERS
.sp
.LP
\fBddi_intr_get_nintrs()\fR
.sp
.ne 2
.na
\fB\fIdip\fR\fR
.ad
.RS 11n
Pointer to \fBdev_info\fR structure
.RE

.sp
.ne 2
.na
\fB\fItype\fR\fR
.ad
.RS 11n
Interrupt type
.RE

.sp
.ne 2
.na
\fB\fInintrsp\fR\fR
.ad
.RS 11n
Pointer to number of interrupts of the given type that are supported by the
system
.RE
```



```
.sp
.LP
\fBddi_intr_get_navail()\fR
.sp
.ne 2
.na
\fB\fIdip\fR\fR
.ad
.RS 11n
Pointer to \fBdev_info\fR structure
.RE

.sp
.ne 2
.na
\fB\fItype\fR\fR
.ad
.RS 11n
Interrupt type
.RE

.sp
.ne 2
.na
\fB\fInavailp\fR\fR
.ad
.RS 11n
Pointer to number of interrupts of the given type that are currently available
from the system
.RE

.SH DESCRIPTION
.sp
.LP
The \fBddi_intr_get_nintrs()\fR function returns the number of interrupts of
the given \fItype\fR supported by a particular hardware device. On a successful
return, the number of supported interrupts is returned as an integer pointed to
by the \fInintrsp\fR argument.
.sp
.LP
If the hardware device is not found to support any interrupts of the given
\fItype\fR, the \fBDDI_INTR_NOTFOUND\fR failure is returned rather than a zero
in \fInintrsp\fR.
.sp
.LP
The \fBddi_intr_get_navail()\fR function returns the number of interrupts of a
given \fItype\fR that is available to a particular hardware device. On a
successful return, the number of available interrupts is returned as an integer
pointed to by \fInavailp\fR.
.sp
.LP
The hardware device may support more than one interrupt and can request that
all interrupts be allocated. The host software can then use policy-based
decisions to determine how many interrupts are made available to the device.
Based on the determination, a value is returned that should be used to allocate
interrupts with the \fBddi_intr_alloc()\fR function.
interrupts with the \fBddi_int_alloc()\fR function.
.sp
.LP
The \fBddi_intr_get_supported_types\fR(9F) function returns a list of valid
supported types for the given hardware device. It must be called prior to
calling either the \fBddi_intr_get_nintrs()\fR or \fBddi_intr_get_navail()\fR.
.SH RETURN VALUES
.sp
.LP
```

```
126 The \fBddi_intr_get_nintrs()\fR and \fBddi_intr_get_navail()\fR functions
127 return:
128 .sp
129 .ne 2
130 .na
131 \fB\fBDDI_SUCCESS\fR\fR
132 .ad
133 .RS 21n
134 On success.
135 .RE

137 .sp
138 .ne 2
139 .na
140 \fB\fBDDI_EINVAL\fR\fR
141 .ad
142 .RS 21n
143 On encountering invalid input parameters.
144 .RE

146 .sp
147 .ne 2
148 .na
149 \fB\fBDDI_INTR_NOTFOUND\fR\fR
150 .ad
151 .RS 21n
152 On not finding any interrupts for the given interrupt type.
153 .RE

155 .sp
156 .ne 2
157 .na
158 \fB\fBDDI_FAILURE\fR\fR
159 .ad
160 .RS 21n
161 On any implementation specific failure.
162 .RE

164 .SH CONTEXT
165 .sp
166 .LP
167 The \fBddi_intr_get_nintrs()\fR and \fBddi_intr_get_navail()\fR functions can
168 be called from either user or kernel non-interrupt context.
169 .SH ATTRIBUTES
170 .sp
171 .LP
172 See \fBattributes\fR(5) for descriptions of the following attributes:
173 .sp

175 .sp
176 .TS
177 box;
178 c | c
179 l | l .
180 ATTRIBUTE TYPE  ATTRIBUTE VALUE
181 _
182 Interface Stability     Committed
183 .TE

185 .SH SEE ALSO
186 .sp
187 .LP
188 \fBattributes\fR(5), \fBddi_intr_alloc\fR(9F), \fBddi_intr_enable\fR(9F),
189 \fBddi_intr_get_supported_types\fR(9F)
190 .sp
191 .LP
```



```
192 \fIWriting Device Drivers\fR
193 .SH NOTES
194 .sp
195 .LP
196 The \fBddi_intr_get_nintrs()\fR and \fBddi_intr_get_navail()\fR functions can
197 be called at any time, even if the driver has added an interrupt handler for a
198 given interrupt specification.
199 .sp
200 .LP
201 On x86 platforms, the number of interrupts returned by the
202 \fBddi_intr_get_navail()\fR function might need to be further reduced by the
203 number of interrupts available for each interrupt priority on the system. In
204 that case, drivers should use different priorities for some of the interrupts.
205 .sp
206 .LP
207 Consumers of these interfaces should verify that the return value is not equal
208 to \fBDDI_SUCCESS\fR. Incomplete checking for failure codes could result in
209 inconsistent behavior among platforms.
```