Alternate integrals signs with LaTeX 2_ε

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Abstract

The package esint.sty allows you to use new integrals symbols.

1 Installation

Run LaTeX 2_ε on esint.ins to generate files:

1. Put esint.sty on TEXINPUT.

2. Put uesint.fd on TEXINPUT, for example with esint.sty.

3. Put esint10.mf, mathint.mf and bigint.mf on MFINPUT.

Run METAFONT on esint10.mf file to generate esint10.tfm files:
`mf \mode=localfont; input esint10.mf`
Put esint10.tfm on the right place.

2 Using esint

Load the package with `\usepackage{esint}`, and enjoy!
BE CAREFUL: `esint` must be loaded AFTER `amslatex`
Available integrals signs:

Commande	textstyle	displaystyle
`\int`	$\int$	$\int$
`\iint`	$\iint$	$\iint$
`\iiint`	$\iiint$	$\iiint$
`\iiiint`	$\iiiint$	$\iiiint$
`\dotsint`	$\int\cdots\int$	$\int\cdots\int$
`\oint`	$\oint$	$\oint$

\oiint	∯	∯	
\varoiint	∯	∯	
\sqint	∮	∮	
\sqiint	∯	∯	
\ointctrclockwise	∮	∮	
\ointclockwise	∮	∮	You can customize the space between in-
\varointclockwise	∮	∮	
\varointctrclockwise	∮	∮	
\fint	⨍	⨍	
\landupint	⨏	⨏	
\landdownint	⨎	⨎	

tegral sign in multiple integrals. You have to modify lines 12 and 13 of the `esint10.mf` file: `tdec#` and `ddec#` are spaces between signs. If you modify `esint10.mf`, delete `esint10.tfm`, the generated `*.pk` files, and run METAFONT on `esint10.mf`.

3 Updates

- 20/01/2005: change in esint.fd in order to avoid a problem inside align environment. Thank's to Eckhard Neber. Font files (mf, pfb, tfm...) are unchanged.

4 The code

The package identifies himself

```
1 ⟨∗package⟩
2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesPackage{esint}
```

To redifine symbols

```
 4 \def\re@DeclareMathSymbol#1#2#3#4{%
 5         \let#1=\undefined
 6         \DeclareMathSymbol{#1}{#2}{#3}{#4}}
```

Definition of the symbol font:

```
 7 \DeclareSymbolFont{largesymbolsA}{U}{esint}{m}{n}
```

Definition of the new symbols:

```
 8 \re@DeclareMathSymbol{\intop}{\mathop}{largesymbolsA}{'001}
 9         \def\int{\intop\nolimits}
10 \re@DeclareMathSymbol{\iintop}{\mathop}{largesymbolsA}{'003}
11         \def\iint{\iintop\nolimits}
12 \re@DeclareMathSymbol{\iiintop}{\mathop}{largesymbolsA}{'005}
13         \def\iiint{\iiintop\nolimits}
14 \re@DeclareMathSymbol{\iiiintop}{\mathop}{largesymbolsA}{'007}
15         \def\iiiint{\iiiintop\nolimits}
16 \re@DeclareMathSymbol{\dotsintop}{\mathop}{largesymbolsA}{'011}
17         \def\dotsint{\dotsintop\nolimits}
18 \re@DeclareMathSymbol{\ointop}{\mathop}{largesymbolsA}{'013}
19         \def\oint{\ointop\nolimits}
20 \re@DeclareMathSymbol{\oiintop}{\mathop}{largesymbolsA}{'015}
21         \def\oiint{\oiintop\nolimits}
22 \re@DeclareMathSymbol{\sqintop}{\mathop}{largesymbolsA}{'017}
23         \def\sqint{\sqintop\nolimits}
24 \re@DeclareMathSymbol{\sqiintop}{\mathop}{largesymbolsA}{'021}
25         \def\sqiint{\sqiintop\nolimits}
26 \re@DeclareMathSymbol{\ointctrclockwiseop}{\mathop}{largesymbolsA}{'027}
27         \def\ointctrclockwise{\ointctrclockwiseop\nolimits}
28 \re@DeclareMathSymbol{\ointclockwiseop}{\mathop}{largesymbolsA}{'031}
29         \def\ointclockwise{\ointclockwiseop\nolimits}
30 \re@DeclareMathSymbol{\varointclockwiseop}{\mathop}{largesymbolsA}{'033}
31         \def\varointclockwise{\varointclockwiseop\nolimits}
32 \re@DeclareMathSymbol{\varointctrclockwiseop}{\mathop}{largesymbolsA}{'035}
33         \def\varointctrclockwise{\varointctrclockwiseop\nolimits}
34 \re@DeclareMathSymbol{\fintop}{\mathop}{largesymbolsA}{'037}
35         \def\fint{\fintop\nolimits}
36 \re@DeclareMathSymbol{\varoiintop}{\mathop}{largesymbolsA}{'041}
37         \def\varoiint{\varoiintop\nolimits}
38 \re@DeclareMathSymbol{\landupintop}{\mathop}{largesymbolsA}{'043}
39         \def\landupint{\landupintop\nolimits}
40 \re@DeclareMathSymbol{\landdownintop}{\mathop}{largesymbolsA}{'045}
41         \def\landdownint{\landdownintop\nolimits}

42 ⟨/package⟩

43 ⟨*fdfile⟩
```

Font definition file:

```
44 \ProvidesFile{uesint.fd}
45 \DeclareFontFamily{U}{esint}{}
46 \DeclareFontShape{U}{esint}{m}{n}{
47    <-> esint10
48    }{}

49 ⟨/fdfile⟩
```