

Interchange – The Open Source Online Shop Platform

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Interchange Demoshop

File Edit View History Bookmarks Tools Help

Replace this graphic with your business or company logo. [Products](#) - [Cart](#) - [Help](#) - [Contact us](#)

- Home - Log In - Your Cart - Check Out - About Us - Language -

Welcome

SEARCH
Advanced Search

Explode tree
Collapse tree

- Hand Tools
- Hardware
- Ladders
- Measuring Tools
- Painting Supplies
- Safety Equipment
- Tool Storage

Welcome to the Interchange Standard Store!










This site is intended to get you started building your own e-business site. Replace the stock graphics, products, and categories in this store to begin building your custom site.

Please note that any products purchased will not be delivered nor will the customer be billed. Any products found on this site is to be treated as fictional.


Take our [Customer Satisfaction Survey](#).


Generate test order to fill the sample order database: [Do test order](#).


Specials

Disposable Brush Set  Our Price: \$14.99	Spackling Knife  Our Price: \$14.99	Framing Hammer  Our Price: \$19.99
16 Penny Nails  Our Price: \$14.99	8 Penny Nails  Our Price: \$12.99	Flat Top Toolbox  Our Price: \$44.99
Rubber Mallet  Our Price: \$24.99	Steel Wool  Our Price: \$8.99	Folding Ruler  Our Price: \$12.99

See also...

Mighty Mouse Tin Snips

Our Price: **\$14.99**

16 Penny Nails

Our Price: **\$14.99**

Garden Shovel

Our Price: **\$13.99**

Done FoxTrick

www.fragrancenet.com

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FragranceNet.com Currency: help | order status | my account | **SHOPPING BAG**
1-800-PARFUMS (727-3867) product search **GO**

WOMEN'S PERFUME MEN'S COLOGNE GIFT SETS SKINCARE HAIRCARE AROMATHERAPY CANDLES


SIGN IN or REGISTER

100%
genuine brands

discounts up to
70% OFF

[VIEW ALL DESIGNERS](#)

Special Gift
cosmetic brushes



yours **free** with any
purchase over \$100

[click here
to activate](#)

free
shipping

U.S. orders over \$70

join our
coupon list

[> click here](#)

— discount perfume and cologne — over 11,000 beauty products — safe & trusted since 1997 —

Buy Fast. Feel Secure.® Enjoy No Payments for 90 Days with **BillMeLater** on orders over \$99 Subject to credit approval. Details>

Calvin Klein

BOSS
HUGO BOSS

ESCADA

Christian Dior

BVLGARI
PARFUMS






D&G
DOLCE & GABBANA






VERSACE

FENDI

GIORGIO ARMANI

HERMÈS
PARIS

				
REDKEN by Redken for Men Up to 21% off	FENDI by Fendi for Women Up to 31% off	JESSICA MC CLINTOCK by Jessica McClintock for Women Up to 64% off	JOOP! by Joop! for Men Up to 63% off	DOLCE & GABBANA by Dolce & Gabbana for Men Up to 12% off

				
CANDLE JEWEL BOX CHEYENNE by Candle Jewel Box Cheyenne Up to 21% off	MACKIE by Bob Mackie for Women Up to 59% off	RUSK by Rusk Up to 30% off	CANDLE GIFT BOX HANNAH by Candle Gift Box Hannah Up to 39% off	TRESOR by Lancome for Women Up to 8% off

FREE compact mirror with purchase

win

a \$250 shopping spree >>

featured collections

NEW arrivals >>

gifts for UNDER \$25 >>

celebrity scents >>

for KIDS only >>

50% off specials >>

other collections:

[new arrivals](#)

[best sellers](#)

[clearance outlet](#)

Done FoxTrick

Backcountry.com

File Edit View History Bookmarks Tools Help



STORE OUTLET BLOG

(800) 409-4502

OR [CHAT NOW](#)

My Account | My Profile | Sign In | Cart | Order Status | Help
FREE SHIPPING ON ORDERS OVER \$50*

SEARCH

GO

CLOTHING

- Men's Clothing
- Women's Clothing
- Kids'
- Shoes

GEAR

- Ski
- Snowboard
- Snowshoe
- Camp / Hike
- Travel
- Bike
- Climb
- Trail Run
- Paddle

ACCESSORIES

- Goggles
- Backpacks
- Avalanche Safety
- Sunglasses
- Luggage
- Watches
- Car Racks

On Sale



SIMPLIFY THE HOLIDAYS FIND THE RIGHT GIFT:

[SHOP BY PRICE >](#)
[SHOP BY ACTIVITY >](#)
[HIGH ROLLERS ONLY >](#)



The North Face - [Killer deals up to 50% off](#)



MEN'S CLOTHING

- Men's Footwear
- Men's Jackets
- Men's Pants
- Men's Long Underwear
- More...



WOMEN'S CLOTHING

- Women's Footwear
- Women's Jackets
- Women's Pants
- Women's Long Underwear
- More...



SKI

- Alpine Skiing
- Telemark Skiing
- Alpine Touring
- Cross Country Skiing
- More...



SNOWBOARD

- Snowboards
- Snowboard Boots
- Snowboard Bindings
- Backcountry Snowboarding
- More...



KIDS'

- Boys' Jackets
- Boys' Pants and Shorts
- Girls' Jackets
- Boys' Shirts
- More...



CAMP/HIKE

- Tents
- Sleeping Bags
- Backpacks
- Car Racks
- More...

SHOP BY BRAND

- The North Face
- Mountain Hardwear
- Arc'teryx
- Marmot

All Brands

NEW YEAR HOOKUP

DROP \$100 OR MORE ON THE NORTH FACE FOR THE HOLIDAYS,
GET \$20
TO SPEND ON ANYTHING IN JANUARY

[CLICK FOR DETAILS >](#)

MY CART

Your cart is currently empty.

EMAIL OPT-IN

Sign up to get Backcountry.com news, sales and deals:

Enter email address

[SUBMIT >](#)

NORRØNA

STRAIGHT FROM NORWAY
ONLY ON

backcountry

[EXCLUSIVE >](#)

Done

FoxTrick

History & Motivation

- 1995: first release of MiniVend
 - 1998: software evaluation for materialboerse.de
 - 2000: Akopia acquired MiniVend
 - 2000: Merged with Tallyman into Interchange
 - 2001: RedHat acquired Akopia
 - 2002: RedHat dropped support for Interchange
 - 2002: foundation of ICDEVGROUP
 - 2007: booth on Linuxtag in Berlin
-
-

Interchange

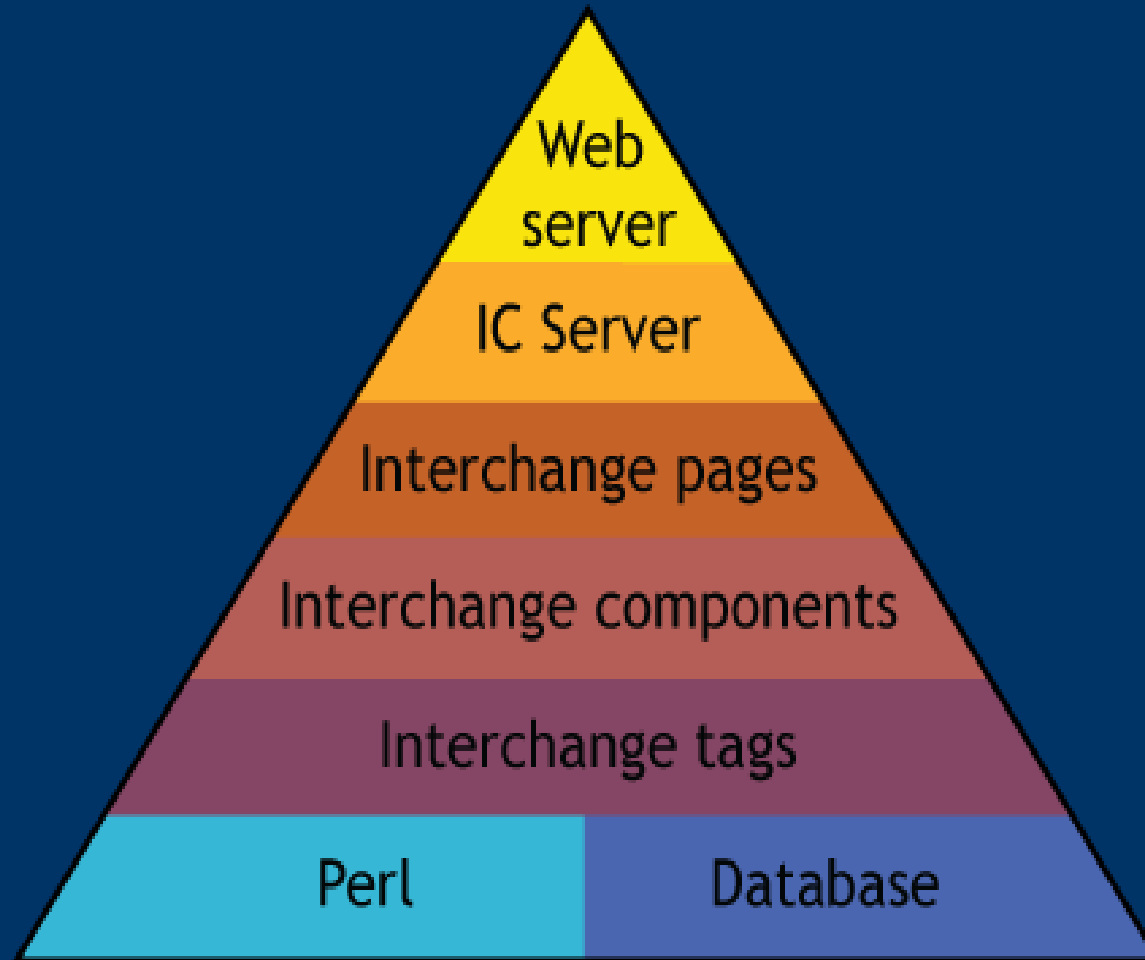
- Architecture
- Perl: how, where and why?
- Development



Architecture

- Standalone Server
 - Global Configuration (interchange.cfg)
- Shops (Catalogs)
 - Local Configuration (catalog.cfg)
- Databases
 - DBI (MySQL, PostgreSQL, SQLite, ...)
- Content
 - Pages, Templates, Components

Architecture: Pyramid



Architecture: Standalone Server

- Pros and Cons
 - Security
 - Performance
 - Threaded Perl
 - Decoupling
 - Stability pattern, Recursive Proxy, Separate Machine
 - Installation
- Run Modes
 - PreFork
 - PreFork/SingleFork
 - On Demand



Architecture: Content

- HTML with ITL
 - Variables
 - @@MV_PAGE@@
 - Localization
 - [L]Conference[/L]
 - UserTags
 - [total-cost]
 - Embedded Perl
 - Safe compartment
 - UserTags
 - \$Tag->total_cost()
-
-

Embedded Perl

Sorting Cart by Article Number

```
[calc]
@$Items = sort {$a->{code} cmp $b->{code}}
  @$Items;
[/calc]
```

Perl Inside UserTag Arguments

```
[assign salestax=`($Tag->subtotal({noformat=>1})
  + $Tag->shipping({noformat=>1}))
  * $Variable->{MWST_SATZ} / 100`]
```

Perl: Why, where and how?

- Perl - why not Java or PHP?
- Perl - where?
- Perl - how?



Perl: Why?

- Lack of alternatives in 1995
- DBI
- CPAN
 - Business::UPS
 - Business::OnlinePayment



Perl: Where?

- Server
- UserTags
- ActionMaps
- Filters
- Checks
- Modules



UserTags: [order] Example

Put one T-Shirt into cart:

```
[order item="IC2008"]
```

Put two T-Shirts into the cart:

```
[order item="IC2008" quantity="2"]
```

Put orange T-Shirt into the cart

```
[order code="IC2008" color="orange"]
```

```
[order code="IC2008"  
  form="mv_order_color=orange"]
```



UserTags: [custom-order]

```
UserTag custom-order Order code quantity
UserTag custom-order AddAttr
UserTag custom-order Routine <<EOR
sub {
    my ($code, $quantity, $opt) = @_ ;

    for (qw/color size/) {
        $opt->{form}
            .= "mv_order_${_}=$opt->{$_}\n";
    }

    return $Tag->order($code, $quantity,
        $opt);
}
EOR
```

ActionMap: download

```
ActionMap download <<EOM
sub {
    my ($name, $id) = split('/', shift);

    unless ($Session->{logged_in}) {
        $CGI->{mv_nextpage} = 'index';
        return 1;
    }

    $id =~ s/\.xls$//;

    $Tag->perl({tables => 'uploads'});

    if (($ref = $Db{uploads}->row_hash($id)
        && $ref->{company_idf} == $Scratch->{"company::idf"})
    {
        $Tag->deliver({file => $ref->{file}});
        return;
    } else {
        $CGI->{mv_nextpage} = 'intern/upload';
        return 1;
    }
}
EOM
```

Modules

Load modules with require:

```
Require Module Vend::Payment::BusinessPayment  
Require Module Vend::Swish /usr/lib/swish-e/perl
```

Vend::Picture

```
package Vend::Picture;  
  
use IO::Scalar;  
use Image::Magick;  
  
use vars qw($CGI);
```

Vend::Picture::magick

```
sub magick {
    my ($name, $opts) = @_ ;
    my (@args, $image, $msg);

    # first read in image
    if ($opts->{cgi}) {
        tie *IMG, 'IO::Scalar', \ $CGI::file{$name};
        @args = (file => \*IMG);
    } else {
        @args = (filename => $name);
    }

    $image = new Image::Magick;

    if ($msg = $image->Read(@args)) {
        ::logError("failed to read picture: $msg");
        return;
    }

    return $image;
}
```

Vend::Picture::resize

```
sub resize {  
    my ($name, $width, $height, $opts) = @_;  
    my ($image, $msg, $size, $outfile);  
  
    $image = magick($name, $opts);
```

```
$outfile = $opts->{outfile} || $name;

# if we want both width and height to fit, we have to crop a bit
if ($width && $height) {

    # Get the size and resize according to it
    my ($orig_width, $orig_height) = (0,0); # $image->[0]->Ping();
    $size = "${width}x$height";
    my $crop = $size;

    $orig_width = $image->[0]->Get('width');
    $orig_height = $image->[0]->Get('height');

    if ($orig_width < $orig_height){ # if landscape
        $size = "${width}x";
    }
    else {
        $size = "x$height";
    }

    $msg = $image->[0]->Thumbnail(geometry => $size);

    $msg = $image->[0]->Set( Gravity => 'Center');

    $msg = $image->[0]->Crop("$crop+0+0");

    return Vend::Picture::write($image, $outfile);
}
```

Vend::Picture: Thumbnail Resize

```
elsif ($width || $height) {
    # shrink it by width or height
    if ($width) {
        $size = "${width}x";
    }
    else{
        $size = "x$height";
    }

    $msg = $image->[0]->Thumbnail(geometry => $size);

    if ($msg) {
        ::logError("Vend::Picture::resize: $msg");
        return;
    }

    return Vend::Picture::write($image, $outfile);
}
```

Vend::Picture: [image-resize]

```
use Vend::Config;
use Vend::File;

Vend::Config::parse_tag('UserTag',
    'image_resize Order name width height');

Vend::Config::parse_tag('UserTag',
    'image_resize AddAttr');

Vend::Config::parse_tag('UserTag',
    'image_resize MapRoutine Vend::Picture::resize');

[image_resize original 200 30]
```

Interchange API's

- Payment
- Shipping
- Options
- Database



Development

- Roadmap
 - UTF8
 - WellWell Template
 - Gettext
- Community
 - Organization
 - Contributions



Roadmap

- Store Template (WellWell)
- Full UTF-8 support
- Gettext support



UTF-8 Support

- Interchange 5.6.0
 - experimental
- Regexes in Embedded Perl
 - Safe



ICDEVGROUP

- <http://www.icdevgroup.org/>
- Developers from all around the globe
 - Croatia, Germany, Great Britain, Greece, Netherlands, New Zealand, Slovenia, USA



Community

- Mailinglist
- IRC
- Bug Tracker (RT)
- LinuxTag 2009

