



DWClient & dwapid

 **why?**

- faster
- better control
- more scalable



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 **vocabulary**

- **dwapid** - Donorware API Daemon
- **DWClient** - a WebGUI wobject similar to SOAP-based WSClient
- **dasco3** - can manage multiple parallel connections to dwapid as required

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- encryption: Twofish, Rijndael
- serialization: Storable, JSON
- compression: Zlib
- encoding: base64, hex

dwclient.pl -ping
dwclient.pl -findaccounts=<name> [-verbose]
dwclient.pl -help

```
my $start_time = [gettimeofday];
my $envelope =
  { module      => 'DonorWare::App::Account',
    login       => 'dwapid',
    method      => 'find_accounts',
    client      => $cfg->{client},
    streaming   => 0,
    request_id  => "dwclient-$$",
    arguments =>
      { auth_token => '2e676aa21...20ea7ef1',
        session    => "dwclient-$$",
        key        => 'smith' }
  };
```



dwclient.pl

```

my ( $sock, $filter, $driver ) = setup_socket();
my $serializer = make_serializer();
my $request = encrypt_request($serializer, $envelope );

my $response = send_request(
    $request, $sock, $filter, $driver );
my $results = decrypt_response(
    $response, $request, $serializer );

my $elapsed = tv_interval( $start_time );
my $count = scalar @{$results->{results_list} };

print "found $count records in ", $elapsed, " seconds \n";
print Dumper $results if $opt{verbose};

```

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performance

236 ms - binary getname call to get the data
86 ms - dwapid overhead for serialization/encryption, etc
====
322 ms - time for API to return to socket

80 ms - Internet for Calgary to Denver
====
402 ms - packet arrives at client

151 ms- time for decryption/deserialization and population of gui
====
553 ms

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available APIs

<http://donor.com/ref/donorware/app>

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