

# Package onens

```
import "github.com/jw-1ns/go-1ns"
```

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```

```
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```

## Package files

config.go contenthash.go ensregistry.go misc.go name.go namehash.go publicresolver.go registrarcontroller.go

## Variables

UnknownAddress is the address to which unknown entries resolve

```
var UnknownAddress = common.HexToAddress("00")
```

## func ContenthashToString

```
func ContenthashToString(bytes []byte) (string, error)
```

ContenthashToString turns EIP-1577 binary format in to EIP-1577 text format

## func CreateRegistrySession

```
func CreateRegistrySession(chainID *big.Int, wallet *accounts.Wallet, account
*accounts.Account, passphrase string, contract *ensregistry.Contract, gasPrice
*big.Int) *ensregistry.ContractSession
```

CreateRegistrySession creates a session suitable for multiple calls

## func Domain

```
func Domain(domain string) string
```

Domain obtains the domain of an ENS name, including subdomains. It does this by removing everything up to and including the first period. For example, 'country' will return ''

```
'foo.country' will return 'country'
'bar.foo.country' will return 'foo.country'
```

## func DomainLevel

```
func DomainLevel(name string) (level int)
```

DomainLevel calculates the level of the domain presented. A top-level domain (e.g. 'country') will be 0, a domain (e.g. 'foo.country') will be 1, a subdomain (e.g. 'bar.foo.country') will be 2, etc.

## func DomainPart

```
func DomainPart(domain string, part int) (string, error)
```

DomainPart obtains a part of a name. Positive parts start at the lowest-level of the domain and work towards the top-level domain. Negative parts start at the top-level domain and work towards the lowest-level domain. For example, with a domain bar.foo.com the following parts will be returned: Number | part

1		bar
2		foo
3		com
-1		com
-2		foo
-3		bar

## func LabelHash

```
func LabelHash(label string) (hash [32]byte, err error)
```

LabelHash generates a simple hash for a piece of a name.

## func NameHash

```
func NameHash(name string) (hash [32]byte, err error)
```

NameHash generates a hash from a name that can be used to look up the name in ENS

## func NormaliseDomain

```
func NormaliseDomain(domain string) (string, error)
```

NormaliseDomain turns ENS domain in to normal form

## func NormaliseDomainStrict

```
func NormaliseDomainStrict(domain string) (string, error)
```

NormaliseDomainStrict turns ENS domain in to normal form, using strict DNS rules (e.g. no underscores)

## func Normalize

```
func Normalize(input string) (output string, err error)
```

Normalize normalizes a name according to the ENS rules

## func PublicResolverAddress

```
func PublicResolverAddress(backend bind.ContractBackend) (common.Address, error)
```

PublicResolverAddress obtains the address of the public resolver for a chain

## func RegistryContractAddress

```
func RegistryContractAddress(backend bind.ContractBackend) (common.Address, error)
```

RegistryContractAddress obtains the address of the registry contract for a chain. This is (currently) the same for all chains.

## func Resolve

```
func Resolve(backend bind.ContractBackend, input string) (address common.Address, err error)
```

Resolve resolves an ENS name in to an Etheruem address This will return an error if the name is not found or otherwise 0

## func SetResolver

```
func SetResolver(session *ensregistry.ContractSession, name string, resolverAddr *common.Address) (*types.Transaction, error)
```

SetResolver sets the resolver for a name

## func SetSubdomainOwner

```
func SetSubdomainOwner(session *ensregistry.ContractSession, name string,
    subdomain string, ownerAddr *common.Address) (*types.Transaction, error)
```

SetSubdomainOwner sets the owner for a subdomain of a name

## func StringToContenthash

```
func StringToContenthash(text string) ([]byte, error)
```

StringToContenthash turns EIP-1577 text format in to EIP-1577 binary format

## func Tld

```
func Tld(domain string) string
```

Tld obtains the top-level domain of an ENS name

## func UnqualifiedName

```
func UnqualifiedName(domain string, root string) (string, error)
```

UnqualifiedName strips the root from the domain and ensures the result is suitable as a name

## type Name

Name represents an ENS name, for example 'foo.bar.eth'.

```
type Name struct {
    // Name is the fully-qualified name of an ENS domain e.g. foo.bar.eth
    Name string
    // Domain is the domain of an ENS domain e.g. bar.eth
    Domain string
    // Label is the name part of an ENS domain e.g. foo
    Label string
    // contains filtered or unexported fields
}
```

## func NewName

```
func NewName(backend bind.ContractBackend, name string) (*Name, error)
```

NewName creates an ENS name structure. Note that this does not create the name on-chain.

## func (\*Name) Controller

```
func (n *Name) Controller() (common.Address, error)
```

Controller obtains the controller for this name. The controller can carry out operations on the name such as setting records, but cannot transfer ultimate ownership of the name.

## func (\*Name) RegistrationInterval

```
func (n *Name) RegistrationInterval() (time.Duration, error)
```

RegistrationInterval obtains the minimum interval between commit and reveal when registering this name.

## type RegistrarController

RegistrarController is the structure for the registrar controller contract

```
type RegistrarController struct {  
    Contract      *registrarcontroller.Contract  
    ContractAddr  common.Address  
    // contains filtered or unexported fields  
}
```

## func NewRegistrarControllerAt

```
func NewRegistrarControllerAt(backend bind.ContractBackend, domain string,  
address common.Address) (*RegistrarController, error)
```

NewRegistrarControllerAt creates a registrar controller at a given address

## func (\*RegistrarController) BaseNode

```
func (c *RegistrarController) BaseNode(opts *bind.CallOpts) ([32]byte, error)
```

"function baseNode() view returns (bytes32)", BaseNode retrieves the base node

## func (\*RegistrarController) Basextension

```
func (c *RegistrarController) Baseextension() (string, error)
```

"function baseExtension() view returns (string)", BaseExtension retrieves the baseExtension

## func (\*RegistrarController) Commit

```
func (c *RegistrarController) Commit(opts *bind.TransactOpts, commitment [32]byte) (*types.Transaction, error)
```

"function commit(bytes32)", Commit sends a commitment to register a domain.

## func (\*RegistrarController) CommitmentHash

```
func (c *RegistrarController) CommitmentHash(opts *bind.CallOpts, domain string, owner common.Address, duration *big.Int, secret [32]byte, resolver common.Address, data [][]byte, reverseRecord bool, fuses uint32, wrapperExpiry uint64) (common.Hash, error)
```

"function makeCommitment(string,address,uint256,bytes32,address,bytes[],bool,uint32,uint64) pure returns (bytes32)", CommitmentHash returns the commitment hash for a label/owner/secret tuple

## func (\*RegistrarController) Commitments

```
func (c *RegistrarController) Commitments(opts *bind.CallOpts, commitment [32]byte) (*big.Int, error)
```

"function commitments(bytes32) view returns (uint256)" Commitments returns the block timestamp of the commitment

## func (\*RegistrarController) IsAvailable

```
func (c *RegistrarController) IsAvailable(domain string) (bool, error)
```

"function available(string) view returns (bool)", IsAvailable returns true if the domain is available for registration.

## func (\*RegistrarController) IsValid

```
func (c *RegistrarController) IsValid(domain string) (bool, error)
```

IsValid returns true if the domain is considered valid by the controller.

## func (\*RegistrarController) MaxCommitmentInterval



```
func (c *RegistrarController) MaxCommitmentInterval(opts *bind.CallOpts) (*big.Int, error)
```

"function maxCommitmentAge() view returns (uint256)",

## func (\*RegistrarController) MinCommitmentInterval

```
func (c *RegistrarController) MinCommitmentInterval() (*big.Int, error)
```

"function minCommitmentAge() view returns (uint256)", MinCommitmentInterval returns the minimum time that has to pass between a commit and reveal

## func (\*RegistrarController) MinRegistrationDuration

```
func (c *RegistrarController) MinRegistrationDuration() (time.Duration, error)
```

"function MIN\_REGISTRATION\_DURATION() view returns (uint256)",

MinRegistrationDuration returns the minimum duration for which a name can be registered

## func (\*RegistrarController) NameWrapper

```
func (c *RegistrarController) NameWrapper() (common.Address, error)
```

"function nameWrapper() view returns (address)",

## func (\*RegistrarController) Owner

```
func (c *RegistrarController) Owner() (common.Address, error)
```

"function owner() view returns (address)",

## func (\*RegistrarController) Prices

```
func (c *RegistrarController) Prices() (common.Address, error)
```

"function prices() view returns (address)",

## func (\*RegistrarController) RecoverFunds

```
func (c *RegistrarController) RecoverFunds(opts *bind.TransactOpts, token common.Address, to common.Address, amount *big.Int) (*types.Transaction, error)
```

```
"function recoverFunds(address,address,uint256)",
```

## func (\*RegistrarController) Register

```
func (c *RegistrarController) Register(opts *bind.TransactOpts, name string,
owner common.Address, duration *big.Int, secret [32]byte, resolver
common.Address, data [][]byte, reverseRecord bool, fuses uint32, wrapperExpiry
uint64) (*types.Transaction, error)
```

```
"function register(string,address,uint256,bytes32,address,bytes[],bool,uint32,uint64) payable",
```

## func (\*RegistrarController) Renew

```
func (c *RegistrarController) Renew(opts *bind.TransactOpts, name string,
duration *big.Int) (*types.Transaction, error)
```

```
"function renew(string,uint256) payable",
```

## func (\*RegistrarController) RenewWithFuses

```
func (c *RegistrarController) RenewWithFuses(opts *bind.TransactOpts, name
string, duration *big.Int, fuses uint32, wrapperExpiry uint64)
(*types.Transaction, error)
```

```
"function renewWithFuses(string,uint256,uint32,uint64) payable",
```

## func (\*RegistrarController) RenounceOwnership

```
func (c *RegistrarController) RenounceOwnership(opts *bind.TransactOpts)
(*types.Transaction, error)
```

```
"function renounceOwnership()",
```

## func (\*RegistrarController) RentPrice

```
func (c *RegistrarController) RentPrice(opts *bind.CallOpts, name string,
duration *big.Int) (registrarcontroller.IPriceOraclePrice, error)
```

```
"function rentPrice(string,uint256) view returns (tuple(uint256,uint256))",
```

## func (\*RegistrarController) ReverseRegistrar

```
func (c *RegistrarController) ReverseRegistrar() (common.Address, error)
```

"function reverseRegistrar() view returns (address)",

## func (\*RegistrarController) SupportsInterface

```
func (c *RegistrarController) SupportsInterface(opts *bind.CallOpts, interfaceID [4]byte) (bool, error)
```

"function supportsInterface(bytes4) pure returns (bool)",

## func (\*RegistrarController) TransferOwnership

```
func (c *RegistrarController) TransferOwnership(opts *bind.TransactOpts, newOwner common.Address) (*types.Transaction, error)
```

"function transferOwnership(address)",

## func (\*RegistrarController) Withdraw

```
func (c *RegistrarController) Withdraw(opts *bind.TransactOpts) (*types.Transaction, error)
```

"function withdraw()"

## type Registry

Registry is the structure for the ensregistry contract

```
type Registry struct {  
    Contract      *ensregistry.Contract  
    ContractAddr  common.Address  
    // contains filtered or unexported fields  
}
```

## func NewRegistry

```
func NewRegistry(backend bind.ContractBackend) (*Registry, error)
```

NewRegistry obtains the ENS registry

## func NewRegistryAt

```
func NewRegistryAt(backend bind.ContractBackend, address common.Address) (*Registry, error)
```

NewRegistryAt obtains the ENS registry at a given address

## func (\*Registry) Owner

```
func (r *Registry) Owner(name string) (common.Address, error)
```

Owner returns the address of the owner of a name

## func (\*Registry) Resolver

```
func (r *Registry) Resolver(name string) (*Resolver, error)
```

Resolver returns the resolver for a name

## func (\*Registry) ResolverAddress

```
func (r *Registry) ResolverAddress(name string) (common.Address, error)
```

ResolverAddress returns the address of the resolver for a name

## func (\*Registry) SetOwner

```
func (r *Registry) SetOwner(opts *bind.TransactOpts, name string, address common.Address) (*types.Transaction, error)
```

SetOwner sets the ownership of a domain

## func (\*Registry) SetResolver

```
func (r *Registry) SetResolver(opts *bind.TransactOpts, name string, address common.Address) (*types.Transaction, error)
```

SetResolver sets the resolver for a name

## func (\*Registry) SetSubdomainOwner

```
func (r *Registry) SetSubdomainOwner(opts *bind.TransactOpts, name string, subname string, address common.Address) (*types.Transaction, error)
```

SetSubdomainOwner sets the ownership of a subdomain, potentially creating it in the process

## type Resolver

Resolver is the structure for the public resolver contract

```
type Resolver struct {  
    Contract      *publicresolver.Contract  
    ContractAddr  common.Address  
    // contains filtered or unexported fields  
}
```

## func NewResolver

```
func NewResolver(backend bind.ContractBackend, domain string) (*Resolver, error)
```

NewResolver obtains an Public resolver for a given domain

## func NewResolverAt

```
func NewResolverAt(backend bind.ContractBackend, domain string, address  
common.Address) (*Resolver, error)
```

NewResolverAt obtains an ENS resolver at a given address

## func (\*Resolver) ABI

```
func (r *Resolver) ABI(name string) (string, error)
```

ABI returns the ABI associated with a name

## func (\*Resolver) Address

```
func (r *Resolver) Address() (common.Address, error)
```

Address returns the Ethereum address of the domain

## func (\*Resolver) Contenthash

```
func (r *Resolver) Contenthash() ([]byte, error)
```

Contenthash returns the content hash of the domain

## func (\*Resolver) InterfaceImplementer

```
func (r *Resolver) InterfaceImplementer(interfaceID [4]byte) (common.Address,  
error)
```

InterfaceImplementer returns the address of the contract that implements the given interface for the given domain

## func (\*Resolver) MultiAddress

```
func (r *Resolver) MultiAddress(coinType uint64) ([]byte, error)
```

MultiAddress returns the address of the domain for a given coin type. The coin type is as per <https://github.com/satoshilabs/slips/blob/master/slip-0044.md>

## func (\*Resolver) PubKey

```
func (r *Resolver) PubKey() ([32]byte, [32]byte, error)
```

PubKey returns the public key of the domain

## func (\*Resolver) SetABI

```
func (r *Resolver) SetABI(opts *bind.TransactOpts, name string, abi string,
contentType *big.Int) (*types.Transaction, error)
```

SetABI sets the ABI associated with a name

## func (\*Resolver) SetContenthash

```
func (r *Resolver) SetContenthash(opts *bind.TransactOpts, contenthash []byte)
(*types.Transaction, error)
```

SetContenthash sets the content hash of the domain

## func (\*Resolver) SetPubKey

```
func (r *Resolver) SetPubKey(opts *bind.TransactOpts, x [32]byte, y [32]byte)
(*types.Transaction, error)
```

SetPubKey sets the public key of the domain

## func (\*Resolver) SetText

```
func (r *Resolver) SetText(opts *bind.TransactOpts, name string, value string)
(*types.Transaction, error)
```

SetText sets the text associated with a name

## func (\*Resolver) Text

```
func (r *Resolver) Text(name string) (string, error)
```

Text obtains the text associated with a name

## Subdirectories

### Name

..

contracts

baseregistrar

ensregistry

publicresolver

registrarcontroller

util

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