A.1.3 Contract Class

Basic Ethereum Data Store

Mostly pulled from Etherscan. Contains the contract data of Smart Contracts.

See:
[https://docs.google.com/spreadsheets/d/1ehCIQxjSZcVLnddDWHBzhPb8h83mHWZxvyX9eckghbU/edit#gid=472774484]]

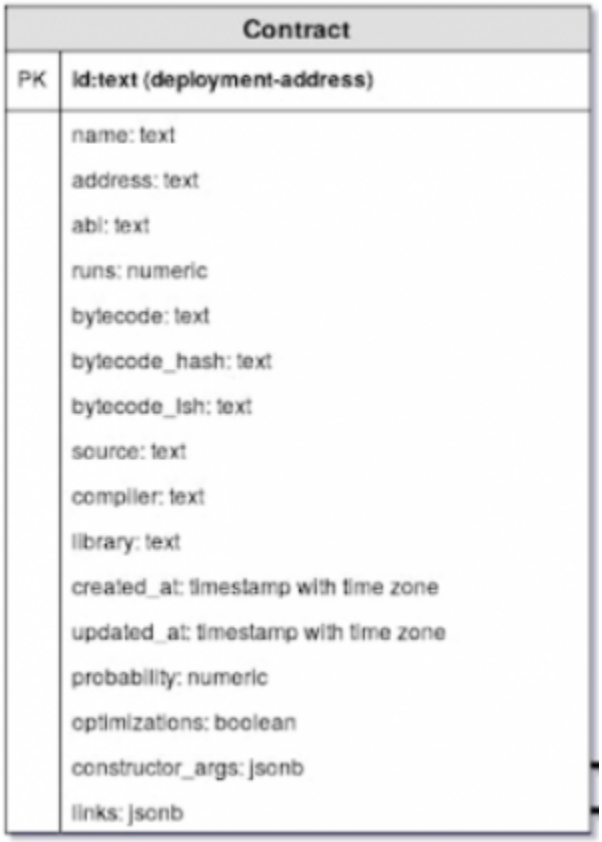

Figure 1: The Ethereum Contract Class

Id

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Primary Key

Description	ID
Datatype	text
Example	ExampleText

Name

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Description	The contract name
Datatype	text
Example	OwnedUpgradeabilityProxy

Address

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the address is technically the hash of a public key

Description	address of the deployed contract.
Datatype	text
Example	0x0000000000013949F288172bD7E36837bDdC7211

ABI

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Runs

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Description	Number of optimizing runs of compiler
Datatype	numeric
Example	200

Bytecode

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Description	The code in Ethereum contracts is written in a low-level, stack-based bytecode language, referred to as EVM6 code. The code consists of a series of bytes, where each byte represents an operation.
Datatype	text

Example	0x6080604052600436106100775763ffffffff7c0100000000000000000000000000000000000000000000000000000000600035041663025313a28114610108578 0630add8140146101395780633659cfe61461014e5780635c60da1b14610171578063639965b3d614610186578063f1739cae1461019b575b60006100816101bc565b 9050600160a060020a03811615156100e3576040805160e560020a62461bcd028152602060048201526 01f6024820152 7f696d706c656d656e746174696f6e20636f 6e7472616374206e6f742073657400604482015290519081900360640190fd5b6040513660008237600080368385 5af43d806000843e818015610104578184f35b818 4fd5b34801561011457600080fd5b5061011d6101f2565b60408051600160a060020a039092168252519081900360200190f35b34801561014557600080fd5b5061011 d610228565b34801561015a57600080fd5b5061016f600160a060020a036004351661025e565b005b34801561017d57600080fd5b5061011d6101bc565b34801561019 257600080fd5b5061016f6102dc565b3480156101a757600080fd5b5061016f600160a060020a03600435166103b8565b604080517f747275655553442e70726f78792 e696d706c656d656e746174696f6e0000000081529051908190036 01c0190205490565b604080517f747275655553442e70726f78792e6f776e657200000000000815290519081900 0000000000081529051908190036013019020549056 5b604080517f747275655553442e70656e64696e672e70726f78792e6f776e657200000000000815290519081900 3601b0190205490565b6102666101f2565b600160a060020a031633600160a060020a03161415156102d0576040805160e560020a62461bcd028152602060048201526 01060248201527f6f6e6c792050726f7879204f776e657200000000000000000000000000000000000000604482015290519081900360640190fd5b6102d981610496565b505 65b6102e4610228565b600160a060020a031633600160a060020a031614151561034e576040805160e560020a62461bcd028152602060048201526018602482015261 7f6 f6e6c792070656e64696e672050726f7879204f776e657200000000000000000604482015290519081900360640190fd5b610356610228565b600160a060020a0316610 3676101f2565b600160a060020a03167f5a3e66efaa1e445ebd894728a69d6959842ea1e97bd79b892797106e270efcd960405160405180910390a36103ac6103a7610 228565b6104fc565b6103b66000610531565b565b6103c06101f2565b600160a060020a031633600160a060020a031614151561042a576040805160e560020a62461bc d028152602060048201526010602482015 27f6f6e6c792050726f7879204f776e6572000000000000000000000000000000000000604482015290519081900360640190fd5 b600160a060020a038116151561043f57600080fd5b6104488161053156 5b7fb3d55174552271a4f1aaf36b72f50381e892171636b3fb5447fe00e995e7a37b6104716 101f2565b604080516001600160a060020a039283168152918416602083015280519182900301 90a150565b60006104a06101bc565b9050600160a060020a0380821690831 614156104bb57600080fd5b6104c482610566565b604051600160a060020a038316907fbc7cd75a20ee27fd9adebab32041f755214dbc6bffa90cc0225b39da2e5c2d3 b90600090a25050565b604080517f747275655553442e70726f78792e6f776e657200000000000000000000000081529051908190036013019020555565b604080517 f747275655553442e70656e64696e672e70726f78792e6f776e657200000000000815290519081900360 1b01902055565b604080517f747275655553442e70726f78792 e696d706c656d656e746174696f6e0000000081529051908190036 01c019020555600a165627a7a7230582066d4b5932adad66dd7b19bdf5b36c25e9e99e563f06c779 eeef9427bb3c9c7670029

Bytecode Hash

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Description	Hash value of bytecode
Datatype	text
Example	0x8987488d191d0070c3de2e6cc1b533c600a513265b1cfb58300fac84d0cc5309

Bytecode Ish

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Description	Hash value of bytecode
Datatype	text
Example	0x1951ceb53e4a24d1fe5bdec0809f797035a7b9e713cc288a0d5c76908ba5dc02d8ca94

Source

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Description	Complete source code of the contract
Datatype	text

Example	`pragma solidity ^0.4.23;`
	`// File: openzeppelin-solidity/contracts/ownership/Ownable.sol`
	`/**`
	` * @title Ownable`
	` * @dev The Ownable contract has an owner address, and provides basic authorization control`
	` * functions, this simplifies the implementation of ""user permissions"".`
	` */`
	`contract Ownable`
	`{`
	`  address public owner;`
	`  ...`
	`}`

Compiler

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Description	Compiler for source code compilation
Datatype	text
Example	v0.4.23+commit.124ca40d

Library

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Description	Something to do with compilation
Datatype	text
Example	NULL

Created At

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Description	Created at timestamp, live on blockchain
Datatype	timestamp with time zone
Example	2018-12-18 02:27:44+00

Updated At

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on blockchain no updates are possible!

Description	Last update timestamp of these values in Anyblock database
Datatype	timestamp with time zone
Example	2019-08-19 18:08:31+00

Probability

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Currently these are set to 1 for all data that we can retrieve from the blockchain or verify via Etherscan. In case we're able to find a matching contract in our database by comparing the byte code of a contract or find a similar contract on a different blockchain, this is reflected in the probability. The probabilities are then copied into the Event and Call tables to give an indication of how sure we are this is the right translation.

Description	Anyblock custom field
Datatype	numeric
Example	1

Optimizations

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Description	Something to do with compilation
Datatype	boolean
Example	False

Constructor Args

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In case of referencing a contract that would mean the constructor arguments at the time of creation.

Description	Constructor arguments
Datatype	jasonb
Example	

Links

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Description	An array of weblinks with description and link.

Datatype	jasonb
Example	