# Solana

Details for working with the Solana environment chains

Developer Tools

To develop contracts for Solana, you'll need to have the following tools installed:

1. [Cargo](#)
2.
    - Rust build tool and package manager
3. [Solana CLI tools](#)
4.
    - CLI tools for working with Solana
5. [Anchor](#)
6.
    - Smart contract development framework
7.

Install [Wormhole rust crates](#) to interact with solana onchain programs and token bridge.

Known issues exist with Solana version 1.15 - downgrade to Solana 1.14.14

Addresses

Because Wormhole works with many environments, the Wormhole address format is normalized.

For Solana based chains, this means a wormhole formatted address is the base58 decoded address.

e.g. worm2ZoG2kUd4vFXhvjh93UUH596ayRfgQ2MgjNMTth
=>0x0e0a589a41a55fbd66c52a475f2d92a6d3dc9b4747114cb9af825a98b545d3ce

Emitter

The emitter address on Solana chains is a Program Derived Address which is derived by the application, normalized to the wormhole address format.

The application dev chooses whether this is a consistent address over time or changes. We strongly recommend making it consistent.

Solana

The contract addresess for testnet are on the Solana devnet

Ecosystem

- [Web site](#)
- [https://explorer.solana.com/](#)
- [Developer docs](#)
-

Wormhole Details

- Name
- :solana
- Chain ID
- :1
- Contract Source
- : No source file, update [here](#)
-

Consistency Levels

The options for [consistencyLevel](#) (i.e finality) are:

Level Value Confirmed 0 Finalized 1 For more information see [https://docs.solana.com/cluster/commitments](#)

Mainnet Contracts (Mainnet Beta -5eykt4UsFv8P8NJdTREpY1vzqKqZKvdpKuc147dw2N9d )

Type Contract Core worm2ZoG2kUd4vFXhvjh93UUH596ayRfgQ2MgjNMTth Token Bridge

wormDTUJ6AWPNvk59vGQbDvGJmqbDTdgWgAqcLBCgUb NFT Bridge WnFt12ZrnzZrFZkt2xsNsaNWoQribnuQ5B5FrDbwDhD

Testnet Contracts (Devnet -EtWTRABZaYq6iMfeYKouRu166VU2xqa1wcaWoxPkrZBG )

Type Contract Core 3u8hJUVTA4jH1wYAyUur7FFZVQ8H635K3tSHHF4ssjQ5 Token Bridge DZnkkTmCiFWfYTfT41X3Rd1kDgozqzxWaHqsw6W4x2oe NFT Bridge 2rHhojZ7hpu1zA91nvZmT8TqWWvMcKmmNBCr2mKTtMq4

Local Network Contract

Type Contract Core Bridge1p5gheXUvJ6jGWGeCsgPKgnE3YgdGKRVCMY9o Token Bridge B6RHG3mfcckmrYN1UhmJzyS1XX3fZKbkeUcpJe9Sy3FE NFT Bridge NFTWqJR8YnRVqPDvTJrYuLrQDitTG5AScqbeghi4zSA

pythnet

Ecosystem

- No webpage, update[here](#)
- No explorer, update[here](#)
- No dev docs, update[here](#)
- 

Wormhole Details

- Name
- :pythnet
- Chain ID
- :26
- Contract Source
- : No source file, update[here](#)
- 

Mainnet Contracts

Type Contract Core H3fxXJ86ADW2PNuDDmZJg6mzTtPxkYCpNuQUTgmJ7AjU Token Bridge N/A NFT Bridge N/A

Testnet Contracts

Type Contract Core EUrRARh92Cdc54xrDn6qzaqjA77NRrCcfbr8kPwoTL4z Token Bridge N/A NFT Bridge N/A

Local Network Contract

Type Contract Core N/A Token Bridge N/A NFT Bridge N/A

Last updated1 month ago

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