Python: Python for Industry and the ORDID Project

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S.I.A.:Introduction

Sia Structure:

- HW

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- High Level SW Development

S.I.A.:SW Development dep.

Priorities:

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- Trace Changes

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- ...Others?

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Some history...

- Scada framework standard support: C / C++ / VB /VB Script / (.NET)

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Python Doubts

- Performance
- dificulty on interfacing exisiting systems
- dificulty on learning the language time
- libraries will support our needs?

Hopes

- No cons :)
- solve cross platform issues (and different O.S. versions issues)
- flexibility (how much ?)
- + readability, - debugging

Hot Impressions

- 0 learning curve
- practical and pragmatic
- bateries included
- pretty good performance

Start working buddy! (1st applications)

Historical Analisys

- Improve trends quality
- Some statistic features
- link Trends and Reports
- ...

Batch Report

- Unify and classify messy info
- Link data
- need of a rich report document
- ...

Consequences

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- (freezing)
- (gui editors)

Intro

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The project aims to study the company issues relatives to the field S.I.A. operates and to solve those problems using techniques of knowledge representation.

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- analisys of company issues
- solution proposed by the university
- tools selected for the solution: python

Research Topics

The topics S.I.A. proposes to the university to study are connected to:
Colecting and analizing information

- high level organization using data acquisition groups

data compression using inivative techniques for realtime data correction

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- shared: information that is of common interest to a group of users
- modified: a group of users enrich the shared knowledge by the group with new information

AI: Proposal

At S.I.A. context the important information to share and modify are the data collected and handled by it sw that comes from digital and analog sensor (...).

- ontologies definition for company's qualified information sharing to collect data using their context meaning
- meaning negotiation to control and organize collected information to attach a semantic meaning on each one in order to enrich sensor readers

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It's almost certain that shared won't be detailed as the individual one

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We must ensure that new info don't change old info

IDEAS

Add new information to each data. We need a markup language to group and classify information and a storage language to append meta information:

1. XML
2. Resource Descriptor Framework(RDF)

IDEAS 2

Find and try new techniques to collect and compress information at runtime:

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- we can use 3 aspects: they are relation between time, a function, and a third value (gradient)we can interpolate and use to study the function behavior (useful for analog data)

QUESTIONS?

THANKS