# Introduction to data exchange between the web applications of TA portal and cooperating institutes

The TA portal shows certain pieces of information about partner institutes in the TA area. In order to be able to do this, the TA portal application has to gather the latest data from the institutes.

This gathering or harvesting is technically realized in the following way:

The TA portal application performs a web request in regular intervals, maybe once a day, by opening a well-defined URL on the institute's web site. This triggers an action of the institute’s web application which returns all pieces of information (like expert, projects, and so on) as JSON formatted text.

The URL for this harvesting action is defined by the institute and given to the administrator of the TA portal application.

An example of such a URL is

http://technology-assessment.info/run/json/sample

This page shows a possible JSON output.

Please be aware that this is just a demo page. It does not contain any real data.

The institutes have to implement a very simple web service which returns the needed JSON data.

That should be relatively easy, if the data are available in a database.

Then the developers have to write a web page which accesses the database, gathers all required data, and represents them in the JSON format.

The data and the format of such a JSON page are defined in the data format specification.

You can find the latest version on

https://docs.google.com/spreadsheet/ccc?key=0AsEN060Ilii4dFgxa1AzUnpXVTdFMWlIVTlXTVIwOVE

or in the TA portal forum area.

You can validate such JSON text on

http://technology-assessment.info/run/json/tester

We provided a php program which "converts" some data (i. e. php objects) into JSON text.

If you write your web page in php, you are free to use the php classes we provide, to ease your task.

Then you only have to access the database, and store all relevant data in the according php objects.

For an example see FakedEntitiesMaker.

Here some Expert, Institute, Publication, and Project objects are created and stored in lists (like TheExperts, TheInstituts, ...).

Then the JSONBuilder object is used to generate JSON output.

A php web page might look like:

<?php

/\*\*

\* This is a small demo program which creates a few entities and

\* returns them as JSON formatted to the web browser.

\*/

require\_once 'taportal/institutes/webservice/base/Classes.php';

header( "Content-type: application/json; charset=ISO-8859-1" );

header( "Content-Transfer-Encoding: 8bit" );

header( 'Cache-Control: no-cache, must-revalidate' );

header( 'Expires: Mon, 26 Jul 1997 05:00:00 GMT' );

list( $institutes, $experts, $projects, $publications ) = FakedEntitiesMaker::fakeExample1();

echo JSONBuilder::build( $institutes, $experts, $projects, $publications );

?>

Of course, you will not use the FakedEntityMaker, but access the database and create some entities with real data.

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