

OPUS Projects Manager Training

Step 1 : Creating a Project

ngs.opus.projects@noaa.gov

I've advanced to the second slide and I'm reading it.

- Can you read this slide and hear me as I read it?
- Can you access the web?
- Is everyone comfortable?
- Does anyone have any questions before we begin?

Outline

- Introduction
- **Step 1 : Creating a Project**
- Step 2 : Uploading Data
- Step 3 : Session Processing
- Step 4 : Network Adjustment

A few words before beginning.

OPUS Projects is a Web-based utility implying that access to the Internet and use of a Web browser are required. JavaScript must be enabled in your browser and pop-up blocking may have to be turned off. If you have difficulty configuring your browser, contact your instructor or the OPUS Projects team.

The OPUS Projects look and feel.

The overall layout and appearance of OPUS Projects will be very similar to that shown here regardless of the browser you use. For this reason, the browser window's frame is not shown in the figures.

What's in this training?

This presentation shows how to create a project and set its preferences in preparation for use. The format is as a series of steps like a cookbook.

Like most cookbooks, the justification for and discussion of variations in those steps will be minimal.

The intent is to get you started quickly, then leave you free to explore OPUS Projects on your own.



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OPUS Projects gives users web-based access to simple management and processing tools for projects involving multiple sites and multiple occupations. The advantages of OPUS Projects are:

- Data uploading through OPUS.
- Customizable data processing via the PAGES software suite.
- Visualization and management aids.

Create a new project.

RESTRICTED to trained project managers. If you have completed OPUS Projects training, you are registered and may create a new project. All others, see the [Training Schedule](#).

Configure, edit, and process individual network sessions.

Project Identifier:

Session Keyword:

Your Email:

Manage, edit, process, and publish the project.

Project Identifier:

Manager Keyword:

Start at the OPUS Projects gateway page:
<http://geodesy.noaa.gov/OPUS-Projects/>.

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- Data uploading through OPUS.
- Customizable data processing via the PAGES software suite.
- Visualization and management aids.

Create a new project.

Create **RESTRICTED** to trained project managers. If you have completed OPUS Projects training, you are registered and may create a new project. All others, see the **Training Schedule**.

Configure, edit, and process individual network sessions.

Session **Project Identifier:**

Session Keyword:

Your Email:

Manage, edit, process, and publish the project.

Manage **Project Identifier:**

Manager Keyword:

Click the “Create” button to start Creating a Project.

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Create Project

* **Email address**
Refers to Project Manager who must be registered with OPUS-Projects

* **Project title**

* **Project type** HTMod FAA Other

* **Approx. location** Latitude: :mm and Longitude: :mm

* **Anticipated start**

* **Approx. size** Stations: and Duration: days

* required fields

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You'll be taken to the "Create Project" page. Here you'll enter your email address, a title for and brief summary of your project. Let's work through these steps.

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Create Project

* **Email address**
Refers to Project Manager who must be registered with OPUS-Projects

* **Project title**

* **Project type** HiMod FAA Other

* **Approx. location** Latitude: Ndd:mm and Longitude: Wdd:mm

* **Anticipated start**

* **Approx. size** Stations: 0 and Duration: 0 days

* required fields

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Your email addresses must be less than 54 characters in length.

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Create Project

* Email address
Refers to Project Manager who must be registered with OPUS-Projects

* Project title

* Project

* Approx

* Anticip

* Approx

The page at http://beta.ngs.noaa.gov says:

PROBLEM: Check or enter your EMAIL ADDRESS.

OK

Create Cancel

* required fields

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You must be registered to create a project. This will be verified after you enter your email address and move to the next field.

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Create Project

* **Email address**
Refers to Project Manager who must be registered with OPUS-Projects

* **Project title**

* **Project**

* **Approx**

* **Anticip**

* **Approx**

The page at http://beta.ngs.noaa.gov says:

PROBLEM: Check or enter your EMAIL ADDRESS.

* required fields

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OPUS Projects Manager Training is the best way to be registered to create projects. Information upcoming classes can be found at <http://geodesy.noaa.gov/corbin/calendar.shtml>.



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Create Project

*** Email address**
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*** Project title**

*** Project type** HtMod FAA Other

*** Approx. location** Latitude: and Longitude:

*** Anticipated start**

*** Approx. size** Stations: and Duration: days

* required fields

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After entering a registered email address, the “Create” button will be enabled and you can complete the form.

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Next, enter your project title. The project title must be less than 65 characters in length but, otherwise, has few restrictions. However, remember that short and simple are often better.

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* required fields

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The project type designates the project as a HtMod (Height Modernization), FAA (Aeronautical Survey Program) or Other type of project.

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* Project title:

* Project type: HtMod FAA Other

* Approx. location: Latitude: and Longitude:

* Anticipated start:

* Approx. size: Stations: and Duration: days

* required fields

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HtMod and FAA projects will receive additional scrutiny if published to insure they meet the specifications for those types of projects. Leave the type as Other for now.

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You can enter the approximate location by clicking on the map or typing directly into the entry fields. Let's set the approximate location by clicking on the map. The training data was taken in southern Louisiana.



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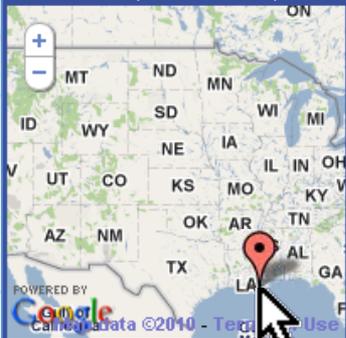
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Create Project

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*** Anticipated start**

*** Approx. size** Stations: and Duration: days

* required fields

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Create Project

* Email address
Refers to Project Manager who must be registered with OPUS-Projects

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* Approx. location Latitude: and Longitude:

* Anticipated start

* Approx. size Stations: Duration: days

* required fields

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Similarly, you can enter the anticipated start date manually or use a pop-up calendar feature. Clicking on the entry fields causes a calendar to appear.

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*** Project type** HtmMod FAA Other

*** Approx. location** Latitude: and Longitude:

*** Anticipated start**

*** Approx. size**

* required fields

◀
November 2010
▶

SU	MO	TU	WE	TH	FR	SA
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20

Nov-2010 15:53:52 EST

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If you prefer to enter the start manually, hitting the ESC key while the calendar is visible causes the calendar to disappear, then you can enter the date using a MM/DD/YYYY format.

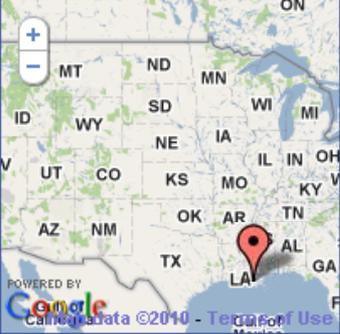


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*** Project title**

*** Project type** HtMod FAA Other

*** Approx. location** Latitude: and Longitude:

*** Anticipated start**

*** Approx. size** :

◀
October
▼
2006
▼
▶

SU	MO	TU	WE	TH	FR	SA
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21

* required fields

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You can select the month and year using the controls at the top of the calendar. Clicking on a day number causes it to be entered into the field. This project started October 1, 2006

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You can type in the fields or click the increment/decrement buttons to complete the approximate size fields. The values are limited to 999 or less.

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* required fields

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When the form is complete, click Create.

Your Project Was Successfully Created

Your New Project Was Successfully Created

Title: my project @ 2006-10-01

Project Manager

Email: your.name@your.address

Project Keywords

Project ID: HRDB86FC

Used to submit data to this project.

Manager Keyword: FF5D3ZMU

Provides access to project management functions.

Session Keyword: D_SSVK68

Provides access to process individual project sessions.

Reminders

These keywords were also emailed to you.

Be sure to save these keywords.

Keywords may be changed at the Project **manager's page**.

Use the OPUS Projects link on the **OPUS page** to access your Project.

After a moment, an introduction to your newly created project will be shown. It contains information necessary for you to work with your project. You'll also receive this information in email. Save this email for future reference.

Your Project Was Successfully Created

Your New Project Was Successfully Created

Title: my project @ 2006-10-01

Project Manager

Email: your.name@your.address

Project Keywords

Project ID: HRDB86FC

Used to submit data to this project.

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Be sure to save these keywords.

Keywords may be changed at the Project **manager's page**.

Use the OPUS Projects link on the **OPUS page** to access your Project.

Let's highlight the most critical information.

Your Project Was Successfully Created

Your New Project Was Successfully Created
Title: my project @ 2006-10-01

Project Manager
Email: your.name@your.address

Project Keywords
Project ID: HRDB86FC
Used to submit data to this project.

Manager Keyword: FF5D3ZMU
Provides access to project management functions.

Session Keyword: D_SSVK68
Provides access to process individual project sessions.

Reminders
These keywords were also emailed to you.
Be sure to save these keywords.
Keywords may be changed at the **Project manager's page**.
Use the **OPUS Projects** link on the **OPUS page** to access your Project.

The project identifier, and the manager and session keywords are used to access to your project.

Your Project Was Successfully Created

Your New Project Was Successfully Created

Title: my project @ 2006-10-01

Project Manager

Email: your.name@your.address

Project Keywords

Project ID: HRDB86FC

Used to submit data to this project.

Manager Keyword: FF5D3ZMU

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Session Keyword: D_SSVK68

Provides access to process individual project sessions.

Reminders

These keywords were also emailed to you.

Be sure to save these keywords.

Keywords may be changed at the **Project manager's page**.

Use the **OPUS Projects** link on the **OPUS page** to access your Project.

Your project identifier can be shared thereby permitting others to upload data to your project.

Your Project Was Successfully Created

Your New Project Was Successfully Created

Title: my project @ 2006-10-01

Project Manager

Email: your.name@your.address

Project Keywords

Project ID: HRDB86FC

Used to submit data to this project.

Manager Keyword: FF5D3ZMU

Provides access to project management functions.

Session Keyword: D_SSVK68

Provides access to process individual project sessions.

Reminders

These keywords were also emailed to you.

Be sure to save these keywords.

Keywords may be changed at the **Project manager's page**.

Use the **OPUS Projects** link on the **OPUS page** to access your Project.

The project identifier and the manager keyword allow you, the project manager, complete access to all parts of your project.

Your Project Was Successfully Created

Your New Project Was Successfully Created

Title: my project @ 2006-10-01

Project Manager

Email: your.name@your.address

Project Keywords

Project ID: HRDB86FC

Used to submit data to this project.

Manager Keyword: FF5D3ZMU

Provides access to project management functions.

Session Keyword: D_SSVK68

Provides access to process individual project sessions.

Reminders

These keywords were also emailed to you.

Be sure to save these keywords.

Keywords may be changed at the **Project manager's page**.

Use the **OPUS Projects** link on the **OPUS page** to access your Project.

The project identifier and session keyword offer limited access to your project's session and mark pages. This is useful if another person is to help with data processing for example.

Your Project Was Successfully Created

Your New Project Was Successfully Created

Title: my project @ 2006-10-01

Project Manager

Email: your.name@your.address

Project Keywords

Project ID: HRDB86FC

Used to submit data to this project.

Manager Keyword: FF5D3ZMU

Provides access to project management functions.

Session Keyword: D_SSVK68

Provides access to process individual project sessions.

Reminders

These keywords were also emailed to you.

Be sure to save these keywords.

Keywords may be changed at the Project **manager's page**.
Use the OPUS Projects link on the OPUS page to access Project.

The project's preferences can be accessed from the manager's page. These should be reviewed at creation so a convenient link to the manager's page is provided. Let's go there now by clicking the link.

Results From **ALL OPUS SOLUTIONS**

Controls

LEGEND MARKS: ● meet preferences ○ do not meet preferences ⊗ are not included ⊗ have error
CORS: ▲ meet preferences ▲ do not meet preferences ▲ are not included

Baselines:

Map Satellite Terrain

Preferences
Project List
Design
Serfil
Solutions
Show File
Send Email
Set up Adjustment
Review and Publish
Delete Project

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50 mi
100 km

Gulf of Mexico

Add MARKS
CORS
Add CORS

You'll be taken to the manager's page for your empty project.

Results From

Controls		LEGEND			LEGEND	
<input type="button" value="?"/> <input type="button" value="←"/> <input type="button" value="↺"/>		MARKS: <input type="radio"/> meet preferences <input type="radio"/> do not meet preferences <input type="radio"/> are not included <input type="radio"/> have error	<input type="radio"/> meet preferences <input type="radio"/> do not meet preferences <input type="radio"/> are not included			
<input type="button" value="Preferences"/> <input type="button" value="Project List"/> <input type="button" value="Design"/> <input type="button" value="Serfil"/> <input type="button" value="Solutions"/> <input type="button" value="Show File"/> <input type="button" value="Send Email"/> <input type="button" value="Set up Adjustment"/> <input type="button" value="Review and Publish"/> <input type="button" value="Delete Project"/>		Baselines: —————			<input type="button" value="Map"/> <input type="button" value="Satellite"/> <input type="button" value="Terrain"/>	

<input type="button" value="+"/> <input type="button" value="Marks"/> <input type="button" value="Marks&CORS"/> <input type="button" value="-"/>		<input type="button" value="Add MARKS"/>	
		<input type="button" value="CORS"/>	

Before proceeding, let's take a few moments to familiarize ourselves with the general layout of this page. We'll discuss the details in later steps of the training.

Results From **ALL OPUS SOLUTIONS**

Controls		LEGEND			LEGEND		MARKS	
? ← ↻		MARKS: ● meet preferences ● do not meet preferences ⊗ are not included ⊗ have error						
Preferences Project List Design Serfil Solutions Show File Send Email Set up Adjustment Review and Publish Delete Project		CORS: ▲ meet preferences ▲ do not meet preferences ▲ are not included	Baselines: ■■■■■■■■■■		+ Marks Marks&CORS -		Map Satellite Terrain	
							Add MARKS	
							CORS	

At the top of the page, you may see notices about OPUS. Very rarely, a message specific to your project may appear here too. In these rare cases, no other project will see those messages.

Results From **ALL OPUS SOLUTIONS**

Controls

LEGEND MARKS: ● meet preferences ○ do not meet preferences ⊗ are not included ⊗ have error
CORS: ▲ meet preferences ▲ do not meet preferences ▲ are not included

Baselines: ██████████

Map Satellite Terrain

Map interface showing a satellite view of the Gulf Coast region of the United States, including parts of Texas, Louisiana, Mississippi, and Alabama. Major cities like Dallas, Houston, New Orleans, and Birmingham are visible. The interface includes a left sidebar with navigation buttons (Preferences, Project List, Design, Serfil, Solutions, Show File, Send Email, Set up Adjustment, Review and Publish, Delete Project) and a right sidebar with MARKS and CORS sections.

The manager and session pages are built around a Google Map Services™ interactive map to help orient you in the project and region. As data are uploaded, icons representing the project's marks and included CORS will appear on the map.

Results From **ALL OPUS SOLUTIONS**

Controls

MARKS: meet preferences do not meet preferences are not included have error

CORS: meet preferences do not meet preferences are not included

Baselines: _____

LEGEND

Map Satellite Terrain

Mississippi Alabama Louisiana

Birmingham Tuscaloosa Montgomery Columbus Dothan Tallahassee

Atlanta

Shreveport Monroe Jackson Hattiesburg Mobile Pensacola

New Orleans

Houston Beaumont Galveston Houma

Waco Sugar Land

Plano Dallas

El Dorado

Pine Bluff

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50 mi 100 km

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Gulf of Mexico

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LEGEND

MARKS

Add MARKS

CORS

Add CORS

The names of the marks and CORS will also be listed in tables to the right of the map.

Results From ALL OPUS SOLUTIONS

Controls

MARKS: meet preferences do not meet preferences are not included have error

CORS: meet preferences do not meet preferences are not included

Baselines: _____

Map Satellite Terrain

Buttons: Preferences, Project List, Design, Serfil, Solutions, Show File, Send Email, Set up Adjustment, Review and Publish, Delete Project

Map showing Mississippi, Alabama, Louisiana, and parts of Texas and Georgia. Major cities like Dallas, Houston, New Orleans, Birmingham, and Atlanta are labeled.

Scale: 50 mi / 100 km

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Buttons to “pop up” controls are on the other side of the map.

Results From **ALL OPUS SOLUTIONS**

Controls

MARKS: meet preferences do not meet preferences are not included have error

CORS: meet preferences do not meet preferences are not included

Baselines: _____

Preferences

Project List

Design

Serfil

Solutions

Show File

Send Email

Set up Adjustment

Review and Publish

Delete Project

Map Satellite Terrain

Mississippi Alabama Louisiana

Birmingham Tuscaloosa Montgomery Columbus Dothan Tallahassee

Atlanta

Shreveport Monroe Jackson Hattiesburg Mobile Pensacola Gulfport

Waco Houston Beaumont New Orleans Houma Galveston Sugar Land

Plano Dallas

El Dorado

Pine Bluff

Corpus Christi

Legend MARKS

Add MARKS

CORS

Add CORS

POWERED BY Google

50 mi 100 km

Gulf of Mexico

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Let's continue with this lesson now. Click the "Preferences" button to pop up a window with those controls.

Results From **ALL OPUS SOLUTIONS**

Controls

? ← ↻

Preferences

Project List

Design

Serfil

Solutions

Show File

Send Email

Set up Adjustment

Review and Publish

Delete Project

Project Title, ID and Keywords

A project title, ID and keywords are required. The project title can be almost any string, but brevity is recommended. On the other hand, the ID and keywords have restrictions:

- The project ID must be unique to your project.
- The ID and keywords are not case sensitive.
- The ID and keywords can not contain more than eight characters.
- The ID and keywords can only contain letters, numbers, the dash and underscore characters.

Project Title:	my project @ 2006-10-01		
Project ID:	hrdb86fc	Confirm:	hrdb86fc
Manager Keyword:	ff5d3zmu	Confirm:	ff5d3zmu
Session Keyword:	d_ssvk68	Confirm:	d_ssvk68

CC Manager Emails

Copies of emails created by and sent to you from the project can be sent to others automatically.

CC Manager Emails To:

Add To CC List

Remove From CC List

Data & Solution Quality Thresholds		Data Processing Defaults	
Thresholds are used to highlight solution results that do not meet the quality preferences for your project.			
Precise Ephemeris:	Best Available	Output Ref Frame:	LET OPUS CHOOSE
Minimum ARP Height (m):	0.000	Output Geoid Model:	LET OPUS CHOOSE
Maximum ARP Height (m):	3.000	GNSS:	G (GPS-only)
Minimum Observations Used (%):	80.0	Tropo Model:	Piecewise Linear
Minimum Ambiguities Fixed (%):	80.0	Tropo Interval (s):	7200
Maximum Solution RMS (m):	0.025	Elevation Cutoff (deg):	15.0
Maximum Height Uncertainty (m):	6.040		

MARKS

Add MARKS

CORS

A new window containing the preference controls will appear. For ease of viewing, we'll zoom in and focus on each section of this window individually.

Project Title, ID and Keywords

A project title, ID and keywords are required. The project title can be almost any string, but brevity is recommended. On the other hand, the ID and keywords have restrictions:

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- The ID and keywords can only contain letters, numbers, the dash and underscore characters.

Project Title:	my project @ 2006-10-01		
Project ID:	hrdb86fc	Confirm:	hrdb86fc
Manager Keyword:	ff5d3zmu	Confirm:	ff5d3zmu
Session Keyword:	d_ssvk68	Confirm:	d_ssvk68

The “Project Title, ID and Keywords” section is used to change those values. Note the rules for the ID and keywords. Some find these randomly generated strings challenging and prefer something more memorable. Changing these will cause an updated copy of the email introducing your project be sent to you. We’ll leave them for now.

CC Manager Emails

Copies of emails created by and sent to you from the project can be sent to others automatically.

CC Manager Emails To:

Add To CC List

Remove From CC List

-- NONE --

Sometimes the project will send emails to the you. You can create a list of addresses using the “CC Manager Email” controls so others also received these emails.

The “Data & Solution Quality Thresholds” cause icons and table entries to be flagged if a mark’s solution results exceed a threshold thereby indicating potential problems.

Data & Solution Quality Thresholds

Thresholds are used to highlight solution results that do not meet the quality preferences for your project.

Precise Ephemeris:	Best Available
Minimum ARP Height (m):	0.000
Maximum ARP Height (m):	3.000
Minimum Observations Used (%):	80.0
Minimum Ambiguities Fixed (%):	80.0
Maximum Solution RMS (m):	0.025
Maximum Height Uncertainty (m):	0.040
Maximum Latitude Uncertainty (m):	0.020
Maximum Longitude Uncertainty (m):	0.020

Data & Solution Quality Thresholds

Thresholds are used to highlight solution results that do not meet the quality preferences for your project.

Precise Ephemeris:	Best Available
Minimum ARP Height (m):	0.000
Maximum ARP Height (m):	3.000
Minimum Observations Used (%):	80.0
Minimum Ambiguities Fixed (%):	80.0
Maximum Solution RMS (m):	0.025
Maximum Height Uncertainty (m):	0.040
Maximum Latitude Uncertainty (m):	0.020
Maximum Longitude Uncertainty (m):	0.020

These thresholds are also applied to the OPUS solutions when project data files are uploaded. If an OPUS solution exceeds a threshold, a separate email describing the condition is sent to the address on the upload form.

It is your responsibility to make your field teams aware of this possibility and that receiving one of these warnings does not mean the data file was omitted from the project.

Data & Solution Quality Thresholds

Thresholds are used to highlight solution results that do not meet the quality preferences for your project.

Precise Ephemeris:	Best Available
Minimum ARP Height (m):	0.000
Maximum ARP Height (m):	3.000
Minimum Observations Used (%):	80.0
Minimum Ambiguities Fixed (%):	80.0
Maximum Solution RMS (m):	0.025
Maximum Height Uncertainty (m):	0.040
Maximum Latitude Uncertainty (m):	0.020
Maximum Longitude Uncertainty (m):	0.020

Data & Solution Quality Thresholds

Thresholds are used to highlight solution results that do not meet the quality preferences for your project.

Precise Ephemeris:	Best Available
Minimum ARP Height (m):	0.000
Maximum ARP Height (m):	3.000
Minimum Observations Used (%):	80.0
Minimum Ambiguities Fixed (%):	80.0
Maximum Solution RMS (m):	0.025
Maximum Height Uncertainty (m):	0.060
Maximum Latitude Uncertainty (m):	0.030
Maximum Longitude Uncertainty (m):	0.030

This is a good time to set these values to your project's specifications, if any.

For training purposes only, let's change the maximum height uncertainty to 0.060 m; the latitude and longitude uncertainties to 0.030 m.

The “Data Processing Defaults” are just that; default values and selections appearing in the project’s processing forms. Like all defaults, they can be changed at the time of processing. These values are reasonable for most processing tasks, but let’s select NORMAL for the “Constraint Weights”.

Data Processing Defaults

These are the defaults used in data processing. They can still be changed on a case-by-case basis during processing setup.

Output Ref Frame:	LET OPUS CHOOSE	▼		
Output Geoid Model:	LET OPUS CHOOSE	▼		
GNSS:	G (GPS-only)	▼		
Tropo Model:	Piecewise Linear	▼		
Tropo Interval (s):	7200			
Elevation Cutoff (deg):	15.0			
Constraint Weights:	<input type="radio"/> LOOSE	<input type="radio"/> NORMAL	<input checked="" type="radio"/> TIGHT	
Network Design:	<input type="radio"/> USER	<input checked="" type="radio"/> CORS	<input type="radio"/> MST	<input type="radio"/> TRI

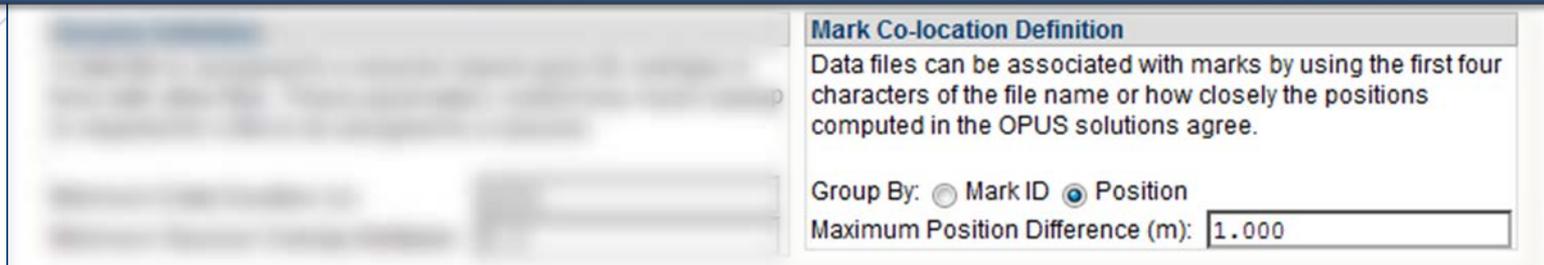
The “Session Definition” section gives you some control over how data files are grouped together to form sessions for processing. These values can only be changed before session processing has begun. After processing has begun, this section is disabled and an explanatory message appears. In almost all cases, these values should not be changed; however, if you feel a need to change the definition, consult with the OPUS Projects team prior to making any changes.

Session Definition

A data file is assigned to a session based upon its overlaps in time with other files. These parameters control how much overlap is required for a file to be assigned to a session.

Minimum Data Duration (s):	<input type="text" value="1800"/>
Minimum Session Overlap Multiplier:	<input type="text" value="0.5"/>

The “Mark Co-location Definition” gives you some control over how data files are associated with a mark. You see here that data files whose OPUS solution positions fall within 1 m of one another will be grouped together. However, RINEX and some other format specifications use a mark identifier string as the first four characters of the file name. If you are confident that this will be the case and be correct for all your project’s data files, select “Mark ID”. Here again, this definition can not be changed after session processing has begun.



The screenshot shows a dialog box titled "Mark Co-location Definition". The text inside reads: "Data files can be associated with marks by using the first four characters of the file name or how closely the positions computed in the OPUS solutions agree." Below this text, there are two radio buttons for "Group By": "Mark ID" (which is unselected) and "Position" (which is selected). At the bottom, there is a text input field labeled "Maximum Position Difference (m):" with the value "1.000" entered.

Results From **ALL OPUS SOLUTIONS**

Controls

? ← ↻

Preferences

Project List

Design

Serfil

Solutions

Show File

Send Email

Set up Adjustment

Review and Publish

Delete Project

Save Changes and Close ✕

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Project ID:	hrdb86fc	Confirm:	hrdb86fc
Manager Keyword:	ff5d3zmu	Confirm:	ff5d3zmu
Session Keyword:	d_ssvk68	Confirm:	d_ssvk68

CC Manager Emails

Copies of emails created by and sent to you from the project can be sent to others automatically.

CC Manager Emails To:

Add To CC List

Remove From CC List --- NONE ---

Data & Solution Quality Thresholds

Thresholds are used to highlight solution results that do not meet the quality preferences for your project.

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Minimum ARP Height (m):	0.000
Maximum ARP Height (m):	3.000
Minimum Observations Used (%):	80.0
Minimum Ambiguities Fixed (%):	80.0
Maximum Solution RMS (m):	0.025
Maximum Height Uncertainty (m):	6.000

Data Processing Defaults

These are the defaults used in data processing. They can still be changed on a case-by-case basis during processing setup.

Output Ref Frame:	LET OPUS CHOOSE
Output Geoid Model:	LET OPUS CHOOSE
GNSS:	G (GPS-only)
Tropo Model:	Piecewise Linear
Tropo Interval (s):	7200
Elevation Cutoff (deg):	15.0

LEGEND

Terrain

Atlanta

Umbus

Providenc

Canyon

State Par

Albany

Tallahass

Waco

tin

orpus

hristi

MARKS

Add MARKS

CORS

Once you've reviewed the preferences and made necessary changes, click the "Save Changes and Close" button to apply these preference to your project.

Results From ALL OPUS SOLUTIONS

Controls		MARKS: ● meet preferences ● do not meet preferences ⊗ are not included ⊗ have error CORS: ⚠ meet preferences ⚠ do not meet preferences ⚠ are not included Baselines: —————			LEGEND		MARKS	
<input type="button" value="?"/> <input type="button" value="←"/> <input type="button" value="↺"/>		<input type="button" value="+"/> <input type="button" value="Marks"/> <input type="button" value="Marks&CORS"/> <input type="button" value="-"/>		<input type="button" value="Map"/> <input type="button" value="Satellite"/> <input type="button" value="Terrain"/>				
<input type="button" value="Preferences"/> <input type="button" value="Project List"/> <input type="button" value="Design"/> <input type="button" value="Serfil"/> <input type="button" value="Solutions"/> <input type="button" value="Show File"/> <input type="button" value="Send Email"/> <input type="button" value="Set up Adjustment"/> <input type="button" value="Review and Publish"/> <input type="button" value="Delete Project"/>						<input type="button" value="Add MARKS"/> <input type="button" value="CORS"/> <input type="button" value="Add CORS"/>		
				<p>Map data ©2013 Google, INEGI - Terms of Use</p>				

Your project is now ready for data uploading to begin.

A Few Words About Impersonation

- If an impersonator creates a project using your email address, the project will be created and you will receive an email saying so.
- Impersonator will have the keywords and could then ADD his/her own email to the CC list (see slide 42). You will receive an email saying so.
- Presumably by now, you're wondering what's up.
- Contact OPUS PROJECTS TEAM requesting a deletion of the project.
- If problem persists, you can ask OPUS PROJECTS TEAM to deauthorize your current email address.
- You also have impersonator's email to enable your own optional "action"

A Few Words About Project ID's

- If you choose to change the Project ID from its randomly assigned keyword to one of your choosing, you must choose a new keyword that is:
 - UNIQUE among all other projects in the world
 - 8-character maximum / not case-sensitive

OPUS Projects Manager Training

Step 1 : Creating a Project

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